The Principles of Political Economy with some of their to social philosophy

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Remarks

In every department of human affairs, Practice long precedessystematic enquiry into the modes of action of the powersnature, is the tardy product of a long course of efforts tothose powers for practical ends. The conception, accordingly,Political Economy as a branch of science is extremely modern;the subject with which its enquiries are conversant has inages necessarily constituted one of the chief practicalof mankind, and, in some, a most unduly engrossing one.

That subject is Wealth. Writers on Political Economy professteach, or to investigate, the nature of Wealth, and the lawsits production and distribution: including, directly or, the operation of all the causes by which the conditionmankind, or of any society of human beings, in respect to thisobject of human desire, is made prosperous or the. Not that any treatise on Political Economy can discusseven enumerate all these causes; but it undertakes to setas much as is known of the laws and principles according tothey operate.

Every one has a notion, sufficiently correct for common, of what is meant by wealth. The enquiries which relateit are in no danger of being confounded with those relating toother of the great human interests. All know that it is oneto be rich, another thing to be enlightened, brave, or; that the questions how a nation is made wealthy, and howis made free, or virtuous, or eminent in literature, in thearts, in arms, or in polity, are totally distinct enquiries.things, indeed, are all indirectly connected, and reactone another. A people has sometimes become free, because itfirst grown wealthy; or wealthy, because it had first become. The creed and laws of a people act powerfully upon theircondition; and this again, by its influence on theirdevelopment and social relations, reacts upon their creedlaws. But though the subjects are in very close contact, theyessentially different, and have never been supposed to be.

It is no part of the design of this treatise to aim atnicety of definition, where the ideas suggested by aare already as determinate as practical purposes require., little as it might be expected that any mischievousof ideas could take pLace on a subject so simple as the, what is to be considered as weaLth, it is matter of, that such confusion of ideas has existed-that theoristspractical poLiticians have been equally and at one period, infected by it, and that for many generations ita thoroughly faLse direction to the policy of Europe. Ito the set of doctrines designated, since the time of Adam, by the appellation of the Mercantile System.

While this system prevailed, it was assumed, either expresslytacitly, in the whole policy of nations, that wealth consistedof money; or of the precious metals, which, when notin the state of money, are capable of being directlyinto it. According to the doctrines then prevalent,tended to heap up money or bullion in a country added towealth. Whatever sent the precious metals out of a countryit. If a country possessed no gold or silver mines,only industry by which it could be enriched was foreign, being the only one which could bring in money. Any branchtrade which was supposed to send out more money than

itin, however ample and valuable might be the returns inshape, was looked upon as a losing trade. Exportation ofwas favoured and encouraged (even by means extremelyto the real resources of the country), because, thegoods being stipulated to be paid for in money, it wasthat the returns would actually be made in gold and silver.of anything, other than the precious metals, wasas a loss to the nation of the whole price of the things; unless they were brought in to be re-exported at a, or unless, being the materials or instruments of somepractised in the country itself, they gave the power ofexportable articles at smaller cost, and therebya larger exportation. The commerce of the world wasupon as a struggle among nations, which could draw tothe largest share of the gold and silver in existence; andthis competition no nation could gain anything, except byothers lose as much, or, at the least, preventing themgaining it.

It often happens that the universal belief of one age ofa belief from which no one was, nor without aneffort of genius and courage, could at that time bebecomes to a subsequent age so palpable an absurdity, thatonly difficulty then is to imagine how such a thing can everappeared credible. It has so happened with the doctrine thatis synonymous with wealth. The conceit seems tooto be thought of as a serious opinion. It looks likeof the crude fancies of childhood, instantly corrected by afrom any grown person. But let no one feel confident that hehave escaped the delusion if he had lived at the time whenprevailed. All the associations engendered by common life, andthe ordinary course of business, concurred in promoting it. Soas those associations were the only medium through which thewas looked at, what we now think so gross an absurditya truism. Once questioned, indeed, it was doomed; but nowas likely to think of questioning it whose mind had notfamiliar with certain modes of stating and ofeconomical phenomena, which have only found theirinto the general understanding through the influence of Adamand of his expositors.

In common discourse, wealth is always expressed in money. Ifask how rich a person is, you are answered that he has sothousand pounds. All income and expenditure, all gains and, everything by which one becomes richer or poorer, areas the coming in or going out of so much money. It isthat in the inventory of a person's fortune are included,only the money in his actual possession, or due to him, butother articles of value. These, however, enter, not in theircharacter, but in virtue of the sums of money which theysell for; and if they would sell for less, their owner isless rich, though the things themselves are precisely the. It is true, also, that people do not grow rich by keepingmoney unused, and that they must be willing to spend into gain. Those who enrich themselves by commerce, do so bymoney for goods as well as goods for money; and the firstas necessary a part of the process as the last. But a personbuys goods for purposes of gain, does so to sell them againmoney, and in the expectation of receiving more money than heout: to get money, therefore, seems even to the personthe ultimate end of the whole. It often happens that henot paid in money, but in something else; having bought goodsa value equivalent, which are set off against those he sold.he accepted these at a money valuation, and in the beliefthey would bring in more money eventually than the price atthey were made over to him. A dealer doing a large amountbusiness, and turning over his capital rapidly, has but aportion of it in ready money at any one time. But he onlyit valuable to him as it is convertible into money: heno transaction closed until the net

result is eitheror credited in money.. when he retires from business it ismoney that he converts the whole, and not until then does hehimself to have realized his gains: just as if money wereonly wealth, and money's worth were only the means ofit. If it be now asked for what end money is desirable,to supply the wants or pleasures of oneself or others, theof the system would not be at all embarrassed by the. True, he would say, these are the uses of wealth, andlaudable uses while confined to domestic commodities,in that case, by exactly the amount which you expend, youothers of your countrymen. Spend your wealth, if you, in whatever indulgences you have a taste for. but youris not the indulgences, it is the sum of money, or themoney income, with which you purchase them.

While there were so many things to render the assumptionis the basis of the mercantile system plausible, there issome small foundation in reason, though a very insufficient, for the distinction which that system so emphatically drawsmoney and every other kind of valuable possession. We, and justly, look upon a person as possessing theof wealth, not in proportion to the useful andthings of which he is in the actual enjoyment, but tocommand over the general fund of things useful and agreeable;power he possesses of providing for any exigency, orany object of desire. Now, money is itself that power;all other things, in a civilized state, seem to confer itby their capacity of being exchanged for money. To possessother article of wealth, is to possess that particular thing,nothing else: if you wish for another thing instead of it,have first to sell it, or to submit to the inconvenience and(if not the impossibility) of finding some one who has whatwant, and is willing to barter it for what you have. But withyou are at once able to buy whatever things are for sale:one whose fortune is in money, or in things rapidlyinto it, seems both to himself and others to possessany one thing, but all the things which the money places ithis option to purchase. The greatest part of the utility of, beyond a very moderate quantity, is not the indulgencesprocures, but the reserved power which its possessor holds inhands of attaining purposes generally; and this power nokind of wealth confers so immediately or so certainly as. It is the only form of wealth which is not merelyto some one use, but can be turned at once to any use.this distinction was the more likely to make an impressiongovernments, as it is one of considerable importance to. A civilized government derives comparatively littlefrom taxes unless it can collect them in money: and ifhas large or sudden payments to make, especially payments incountries for wars or subsidies, either for the sake ofor of not being conquered (the two chief objects ofpolicy until a late period), scarcely any medium ofexcept money will serve the purpose. All these causesto make both individuals and governments, in estimatingmeans, attach almost exclusive importance to money, eitheresse or in posse, and look upon all other things (when viewedpart of their resources) scarcely otherwise than as the remoteof obtaining that which alone, when obtained, affords the, and at the same time instantaneous, command overof desire, which best answers to the idea of wealth.

An absurdity, however, does not cease to be an absurdity whenhave discovered what were the appearances which made it; and the Mercantile Theory could not fail to be seen intrue character when men began, even in an imperfect manner,explore into the foundations of things, and seek theirfrom elementary facts, and not from the forms andof common discourse. So soon as they asked themselvesis really meant by money-what it is in its essential, and the precise nature of the functions itthey reflected that money, like

other things, is only apossession on account of its uses; and that these,of being, as they delusively appear, indefinite, are of adefined and limited description, namely, to facilitatedistribution of the produce of industry according to theof those among whom it is shared. Furthershowed that the uses of money are in no respectby increasing the quantity which exists and circulatesa country; the service which it performs being as wellby a small as by a large aggregate amount. Two millionof corn will not feed so many persons as four millions;two millions of pounds sterling will carry on as much, will buy and sell as many commodities, as four millions,at lower nominal prices. Money, as money, satisfies no; its worth to any one, consists in its being a convenientin which to receive his incomings of all sorts, whichhe afterwards, at the times which suit him best,into the forms in which they can be useful to him. Greatthe difference would be between a country with money, and aaltogether without it, it would be only one of; a saving of time and trouble, like grinding by waterinstead of by hand, or (to use Adam Smith's illustration)the benefit derived from roads; and to mistake money for, is the same sort of error as to mistake the highway whichbe the easiest way of getting to your house or lands, for theand lands themselves.

Money, being the instrument of an important public andpurpose, is rightly regarded as wealth; but everythingwhich serves any human purpose, and which nature does notgratuitously, is wealth also. To be wealthy is to have astock of useful articles, or the means of purchasing them.forms therefore a part of wealth, which has a power of; for which anything useful or agreeable would be givenexchange. Things for which nothing could be obtained in, however useful or necessary they may be, are not wealththe sense in which the term is used in Political Economy. Air,example, though the most absolute of necessaries, bears noin the market, because it can be obtained gratuitously: toa stock of it would yield no profit or advantage toone; and the laws of its production and distribution are theof a very different study from Political Economy. Butair is not wealth, mankind are much richer by obtaining it, since the time and labour which would otherwise befor supplying the most pressing of all wants, can beto other purposes. It is possible to imaginein which air would be a part of wealth. If itcustomary to sojourn long in places where the air does notpenetrate, as in diving-bells sunk in the sea, a supplyair artificially furnished would, like water conveyed into, bear a price: and if from any revolution in nature thebecame too scanty for the consumption, or could be, air might acquire a very high marketable value. Ina case, the possession of it, beyond his own wants, would, to its owner, wealth; and the general wealth of mankind mightfirst sight appear to be increased, by what would be so greatcalamity to them. The error would lie in not considering, thatrich the possessor of air might become at the expense ofrest of the community, all persons else would be poorer bythat they were compelled to pay for what they had beforewithout payment.

This leads to an important distinction in the meaning of thewealth, as applied to the possessions of an individual, andthose of a nation, or of mankind. In the wealth of mankind,is included which does not of itself answer some purposeutility or pleasure. To an individual anything is wealth,, though useless in itself, enables him to claim from otherspart of their stock of things useful or pleasant. Take, for, a mortgage of a thousand pounds on a landed estate.is wealth to the person to whom it brings in a revenue, andcould perhaps sell it in the market for the full amount ofdebt. But it is not wealth to the country;

if the engagementannulled, the country would be neither poorer nor richer.mortgagee would have lost a thousand pounds, and the owner ofland would have gained it. Speaking nationally, the mortgagenot itself wealth, but merely gave A a claim to a portion ofwealth of B. It was wealth to A, and wealth which he couldto a third person; but what he so transferred was ina joint ownership, to the extent of a thousand pounds, inland of which B was nominally the sole proprietor. Theof fundholders, or owners of the public debt of a, is similar. They are mortgagees on the general wealth ofcountry. The cancelling of the debt would be no destructionwealth, but a transfer of it: a wrongful abstraction of wealthcertain members of the community, for the profit of the, or of the tax-payers. Funded property thereforebe counted as part of the national wealth. This is notborne in mind by the dealers in statistical calculations.example, in estimates of the gross income of the country,on the proceeds of the income-tax, incomes derived fromfunds are not always excluded: though the tax-payers areon their whole nominal income, without being permitteddeduct from it the portion levied from them in taxation tothe income of the fundholder. In this calculation,, one portion of the general income of the country istwice over, and the aggregate amount made to appearthan it is by almost thirty millions. A country, however,include in its wealth all stock held by its citizens in theof foreign countries, and other debts due to them from. But even this is only wealth to them by being a partin wealth held by others. It forms no part of thewealth of the human race. It is an element in the, but not in the composition, of the general wealth.

Another example of a possession which is wealth to the personit, but not wealth to the nation, or to mankind, is. It is by a strange confusion of ideas that slave property(as it is termed) is counted, at so much per head, in an estimatethe wealth, or of the capital, of the country which toleratesexistence of such property. If a human being, considered asobject possessing productive powers, is part of the nationalwhen his powers are owned by another man, he cannot bea part of it when they are owned by himself. Whatever he isto his master is so much property abstracted from himself,its abstraction cannot augment the possessions of the two, or of the country to which they both belong. Inof classification, however, the people of a country areto be counted in its wealth. They are that for the sake ofits wealth exists. The term wealth is wanted to denote theobjects which they possess, not inclusive of, but into, their own persons. They are not wealth to, though they are means of acquiring it.

It has been proposed to define wealth as signifying"instruments:" meaning not tools and machinery alone, but theaccumulation possessed by individuals or communities, offor the attainment of their ends. Thus, a field is an, because it is a means to the attainment of corn. Cornan instrument, being a means to the attainment of flour. Flouran instrument, being a means to the attainment of bread. Breadan instrument, as a means to the satisfaction of hunger and tosupport of life. Here we at last arrive at things which areinstruments, being desired on their own account, and not asmeans to something beyond. This view of the subject iscorrect; or rather, this mode of expression mayusefully employed along with others, not as conveying aview of the subject from the common one, but as givingdistinctness and reality to the common view. It departs,, too widely from the custom of language, to be likely togeneral acceptance, or to be of use for any other purposethat of occasional illustration.

Wealth, then, may be defined, all useful or agreeable thingspossess exchangeable value; or, in other words, all usefulagreeable things except those which can be obtained, in thedesired, without labour or sacrifice. To this, the only objection seems to be, that it leaves ina question which has been much debated — whetherare called immaterial products are to be considered as: whether, for example, the skill of a workman, or anynatural or acquired power of body or mind, shall be called, or not: a question, not of very great importance, and, so far as requiring discussion, will be more conveniently in another place.

These things having been premised respecting wealth, we shallturn our attention to the extraordinary differences into it, which exist between nation and nation, and betweenages of the world; differences both in the quantity of, and in the kind of it; as well as in the manner in whichwealth existing in the community is shared among its members.

There is perhaps, no people or community, now existing, whichentirely on the spontaneous produce of vegetation. Buttribes still live exclusively, or almost exclusively, onanimals, the produce of hunting or fishing. Their clothingskins; their habitations, huts rudely formed of logs or boughstrees, and abandoned at an hour's notice. The food they uselittle susceptible of storing up, they have no accumulationit, and are often exposed to great privations. The wealth ofa community consists solely of the skins they wear; a few, the taste for which exists among most savages; someutensils; the weapons with which they kill their game, oragainst hostile competitors for the means of subsistence;for crossing rivers and lakes, or fishing in the sea; andsome furs or other productions of the wilderness,to be exchanged with civilized people for blankets,, and tobacco; of which foreign produce also there may beunconsumed portion in store. To this scanty inventory ofwealth, ought to be added their land; an instrument ofof which they make slender use, compared with morecommunities, but which is still the source of their, and which has a marketable value if there be anycommunity in the neighbourhood requiring more landit possesses. This is the state of greatest poverty in whichentire community of human beings is known to exist; thoughare much richer communities in which portions of theare in a condition, as to subsistence and comfort, asenviable as that of the savage.

The first great advance beyond this state consists in theof the more useful animals; giving rise to theor nomad state, in which mankind do not live on theof hunting, but on milk and its products, and on theincrease of flocks and herds. This condition is not onlydesirable in itself, but more conducive to further progress:a much more considerable amount of wealth is accumulatedit. So long as the vast natural pastures of the earth areyet so fully occupied as to be consumed more rapidly thanare spontaneously reproduced, a large and constantlystock of subsistence may be collected and preserved,little other labour than that of guarding the cattle fromattacks of wild beasts, and from the force or wiles ofmen. Large flocks and herds, therefore, are in time, by active and thrifty individuals through their own, and by the heads of families and tribes through theof those who are connected with them by allegiance.thus arises, in the shepherd state, inequality of; a thing which scarcely exists in the savage state,no one has much more than absolute necessaries, and in casedeficiency must share even those with his tribe. In the nomad, some have an abundance of cattle, sufficient for the fooda multitude, while others have not contrived to appropriateretain any superfluity, or perhaps any cattle at all. Buthas ceased to be

precarious, since the morehave no other use which they can make of their surplusto feed the less fortunate, while every increase in theof persons connected with them is an increase both ofand of power: and thus they are enabled to divestof all labour except that of government and, and acquire dependents to fight for them in warto serve them in peace. One of the features of this state ofis, that a part of the community, and in some degree evenwhole of it, possess leisure. Only a portion of time isfor procuring food, and the remainder is not engrossedanxious thought for the morrow, or necessary repose fromactivity. Such a life is highly favourable to the growthnew wants, and opens a possibility of their gratification. Aarises for better clothing, utensils, and implements, thansavage state contents itself with; and the surplus foodit practicable to devote to these purposes the exertionsa part of the tribe. In all or most nomad communities we findmanufactures of a coarse, and in some, of a fine kind.is ample evidence that while those parts of the world whichbeen the cradle of modern civilization were still generallythe nomad state, considerable skill had been attained in, weaving, and dyeing woollen garments, in theof leather, and in what appears a still moreinvention, that of working in metals. Even speculativetook its first beginnings from the leisure characteristicthis stage of social progress. The earliest astronomicalare attributed, by a tradition which has muchof truth, to the shepherds of Chaldea.

From this state of society to the agricultural the transitionnot indeed easy (for no great change in the habits of mankindotherwise than difficult, and in general either painful orslow), but it lies in what may be called the spontaneousof events. The growth of the population of men and cattlein time to press upon the earth's capabilities of yieldingpasture: and this cause doubtless produced the firstof the ground, just as at a later period the same causethe superfluous hordes of the nations which had remainedprecipitate themselves upon those which had already become; until, these having become sufficiently powerful tosuch inroads, the invading nations, deprived of this, were obliged also to become agricultural communities.

But after this great step had been completed, the subsequentof mankind seems by no means to have been so rapid(certain rare combinations of circumstances excepted) as mighthave been anticipated. The quantity of human food whichearth is capable of returning even to the most wretchedof agriculture, so much exceeds what could be obtained inpurely pastoral state, that a great increase of population isthe result. But this additional food is only obtaineda great additional amount of labour; so that not only anhas much less leisure than a pastoral population,, with the imperfect tools and unskilful processes which area long time employed (and which over the greater part of thehave not even yet been abandoned), agriculturists do not,in unusually advantageous circumstances of climate and, produce so great a surplus of food, beyond their necessary, as to support any large class of labourers engagedother departments of industry. The surplus, too, whether smallgreat, is usually torn from the producers, either by theto which they are subject, or by individuals, who byforce, or by availing themselves of religious orfeelings of subordination, have establishedas lords of the soil.

The first of these modes of appropriation, by the government,characteristic of the extensive monarchies which from a timehistorical record have occupied the plains of Asia. The, in those countries, though varying in its qualitiesto the accidents of personal

character, seldom leavesto the cultivators beyond mere necessaries, and often stripsso bare even of these, that it finds itself obliged, afterall they have, to lend part of it back to those from whomhas been taken, in order to provide them with seed, and enableto support life until another harvest. Under the régime in, though the bulk of the population are ill provided for,government, by collecting small contributions from great, is enabled, with any tolerable management, to make aof riches quite out of proportion to the general conditionthe society; and hence the inveterate impression, of whichhave only at a late period been disabused, concerninggreat opulence of Oriental nations. In this wealth, withoutthe large portion which adheres to the hands employedcollecting it, many persons of course participate, besides thehousehold of the sovereign. A large part is distributedthe various functionaries of government, and among theof the sovereign's favour or caprice. A part isemployed in works of public utility. The tanks,, and canals for irrigation, without which in many tropicalcultivation could hardly be carried on; the embankmentsconfine the rivers, the bazars for dealers, and the seraeestravellers, none of which could have been made by the scantyin the possession of those using them, owe their existencethe liberality and enlightened self-interest of the betterof princes, or to the benevolence or ostentation of herethere a rich individual, whose fortune, if traced to its, is always found to have been drawn immediately orfrom the public revenue, most frequently by a directof a portion of it from the sovereign.

The ruler of a society of this description, after providingfor his own support, and that of all persons in whom hean interest, and after maintaining as many soldiers as heneedful for his security or his state, has a disposable, which he is glad to exchange for articles of luxuryto his disposition: as have also the class of personshave been enriched by his favour, or by handling the public. A demand thus arises for elaborate and costlyarticles, adapted to a narrow but a wealthy market.demand is often supplied almost exclusively by the merchantsmore advanced communities, but often also raises up in theitself a class of artificers, by whom certain fabrics areto as high excellence as can be given by patience,of perception and observation, and manual dexterity,any considerable knowledge of the properties of objects:as some of the cotton fabrics of India. These artificers areby the surplus food which has been taken by the governmentits agents as their share of the produce. So literally isthe case, that in some countries the workman, instead ofhis work home, and being paid for it after it is finished,with his tools to his customer's house, and is thereuntil the work is complete. The insecurity, however, ofpossessions in this state of society, induces even thepurchasers to give a preference to such articles as,of an imperishable nature, and containing great value inbulk, are adapted for being concealed or carried off. Goldjewels, therefore, constitute a large proportion of theof these nations, and many a rich Asiatic carries nearlywhole fortune on his person, or on those of the women of his. No one, except the monarch, thinks of investing his wealtha manner not susceptible of removal. He, indeed, if he feelson his throne, and reasonably secure of transmitting it todescendants, sometimes indulges a taste for durable edifices,produces the Pyramids, or the Taj Mehal and the Mausoleum at. The rude manufactures destined for the wants of theare worked up by village artisans, who areby land given to them rent-free to cultivate, or bypaid to them in kind from such share of the crop as is leftthe villagers by the government. This state of society,, is not destitute of a mercantile class; composed of two, grain dealers and money dealers. The grain dealers dousually buy grain from the

producers, but from the agents of, who, receiving the revenue in kind, are glad toupon others the business of conveying it to the placesthe prince, his chief civil and military officers, the bulkhis troops, and the artisans who supply the wants of thesepersons, are assembled. The money dealers lend to thecultivators, when ruined by bad seasons or fiscal, the means of supporting life and continuing their, and are repaid with enormous interest at the next; or, on a larger scale, they lend to the government, orthose to whom it has granted a portion of the revenue, and areby assignments on the revenue collectors, or bycertain districts put into their possession, that they maythemselves from the revenues; to enable them to do which, aportion of the powers of government are usually made over, to be exercised by them until either theare redeemed, or their receipts have liquidated the. Thus, the commercial operations of both these classes oftake pLace principally upon that part of the produce ofcountry which forms the revenue of the government. From thattheir capital is periodically replaced with a profit, andis also the source from which their original funds havealways been derived. Such, in its general features, is thecondition of most of the countries of Asia, as it hasfrom beyond the commencement of authentic history, and is, wherever not disturbed by foreign influences.

In the agricultural communities of ancient Europe whose earlyis best known to us, the course of things was. These, at their origin, were mostly smallcommunities, at the first plantation of which, in ancountry, or in one from which the former inhabitantsbeen expelled, the land which was taken possession of wasdivided, in equal or in graduated allotments, among thecomposing the community. In some cases, instead of athere was a confederation of towns, occupied by people ofsame reputed race, and who were supposed to have settled incountry about the same time. Each family produced its ownand the materials of its clothing, which were worked upitself, usually by the women of the family, into thefabrics with which the age was contented. Taxes there were, as there were either no paid officers of government, or ifwere, their payment had been provided for by a reservedof land, cultivated by slaves on account of the state;the army consisted of the body of citizens. The whole producethe soil, therefore, belonged, without deduction, to thewhich cultivated it. So long as the process of eventsthis disposition of property to last, the state ofwas, for the majority of the free cultivators, probablyan undesirable one; and under it, in some cases, the advancemankind in intellectual culture was extraordinarily rapid and. This more especially happened where, along withcircumstances of race and climate, and no doubt withfavourable accidents of which all trace is now lost, wasthe advantage of a position on the shores of a greatsea, the other coasts of which were already occupied bycommunities. The knowledge which in such a position wasof foreign productions, and the easy access of foreignand inventions, made the chain of routine, usually soin a rude people, hang loosely on these communities. Toonly of their industrial development; they early acquiredof wants and desires, which stimulated them to extracttheir own soil the utmost which they knew how to make it; and when their soil was sterile, or after they had reachedlimit of its capacity, they often became traders, and boughtthe productions of foreign countries, to sell them in otherwith a profit.

The duration, however, of this state of things was from theprecarious. These little communities lived in a state ofperpetual war. For this there were many causes. In theand purely agricultural communities a frequent cause wasmere pressure of their increasing

population upon theirland, aggravated as that pressure so often was byharvests, in the rude state of their agriculture, andas they did for food upon a very small extent of. On these occasions, the community often emigrated en, or sent forth a swarm of its youth, to seek, sword in, for some less warlike people, who could be expelled fromland, or detained to cultivate it as slaves for the benefittheir despoilers. What the less advanced tribes did from, the more prosperous did from ambition and the military: and after a time the whole of these city-communities wereconquerors or conquered. In some cases, the conqueringcontented itself with imposing a tribute on the vanquished:being, in consideration of that burden, freed from theand trouble of their own military and naval protection,enjoy under it a considerable share of economical, while the ascendant community obtained a surplus of, available for purposes of collective luxury or. From such a surplus the Parthenon and the Propylaeabuilt, the sculptures of Pheidias paid for, and thecelebrated, for which AEschylus, Sophocles, Euripides,Aristophanes composed their dramas. But this state ofrelations, most useful, while it lasted, to theand ultimate interest of mankind, had not the elementsdurability. A small conquering community which does notits conquests, always ends by being conquered.dominion, therefore, at last rested with the people whothis art — with the Romans; who, whatever were theirdevices, always either began or ended by taking a greatof the land to enrich their own leading citizens, and byinto the governing body the principal possessors of the. It is unnecessary to dwell on the melancholyhistory of the Roman empire. When inequality ofonce commences, in a community not constantly engaged inby industry the injuries of fortune, its advances are; the great masses of wealth swallow up the smaller. Theempire ultimately became covered with the vast landedof a comparatively few families, for whose luxury,still more for whose ostentation, the most costly productsraised, soil were slaves, or small tenants in a while the. cultivators of the soil were slaves, or small tenantsnearly servile condition. From this time the weaLth of theprogressively declined. In the beginning, the public, and the resources of rich individuals, sufficed atto cover Italy with splendid edifices, public and private;at length so dwindled under the enervating influences of, that what remained was not even sufficient to keepedifices from decay. The strength and riches of theworld became inadequate to make head against the nomadwhich skirted its northern frontier; they overran the, and a different order of things succeeded.

In the new frame in which European society was now cast, theof each country may be considered as composed, inproportions, of two distinct nations or races, theand the conquered: the first the proprietors of the, the latter the tillers of it. These tillers were allowed tothe land on conditions which, being the product of force,always onerous, but seldom to the extent of absolute. Already, in the later times of the Roman empire, predialhad extensively transformed itself into a kind of: the coloni of the Romans were rather villeins thanslaves; and the incapacity and distaste of the barbarianfor personally superintending industrial occupations,no alternative but to allow to the cultivators, as anto exertion, some real interest in the soil. If, for, they were compelled to labour, three days in the week,their superior, the produce of the remaining days was their. If they were required to supply the provisions of various, ordinarily needed for the consumption of the castle, andoften subject to requisitions in excess, yet after supplyingdemands they were suffered to dispose at their will ofadditional produce they could raise. Under this systemthe Middle Ages it was not impossible, no more than inRussia (where, up to the recent measure of

emancipation,same system still essentially prevailed), for serfs toproperty; and in fact, their accumulations are thesource of the wealth of modern Europe.

In that age of violence and disorder, the first use made by aof any small provision which he had been able to accumulate,to buy his freedom and withdraw himself to some town orvillage, which had remained undestroyed from the timethe Roman dominion; or, without buying his freedom, to abscond. In that place of refuge, surrounded by others of his own. he attempted to live, secured in some measure from theand exactions of the warrior caste, by his own prowessthat of his fellows. These emancipated serfs mostly became; and lived by exchanging the produce of their industrythe surplus food and material which the soil yielded to itsproprietors. This gave rise to a sort of Europeanof the economical condition of Asiatic countries;that, in lieu of a single monarch and a fluctuating bodyfavourites and employés, there was a numerous and in adegree fixed class of great landholders; exhibitingless splendour, because individually disposing of a muchsurplus produce, and for a long time expending the chiefof it in maintaining the body of retainers whom the warlikeof society, and the little protection afforded by, rendered indispensable to their safety. The greater, the fixity of personal position, which this state ofafforded, in comparison with the Asiatic polity to whicheconomically corresponded, was one main reason why it was alsomore favourable to improvement. From this time theadvancement of society has not been further. Security of person and property grew slowly, but. the arts of life made constant progress; plunder ceasedbe the principal source of accumulation; and feudal Europeinto commercial and manufacturing Europe. In the latterof the Middle Ages, the towns of Italy and Flanders, thecities of Germany, and some towns of France and England,a large and energetic population of artisans, and manyburghers, whose wealth had been acquired by manufacturing, or by trading in the produce of such industry. Theof England, the Tiers-Etat of France, the bourgeoisie ofContinent generally, are the descendants of this class. Aswere a saving class, while the posterity of the feudalwere a squandering class, the former by degreesthemselves for the latter as the owners of a greatof the land. This natural tendency was in some casesby laws contrived for the purpose of detaining the landthe families of its existing possessors, in other casesby political revolutions. Gradually, though more, the immediate cultivators of the soil, in all the morecountries, ceased to be in a servile or semi-servile: though the legal position, as well as the economicalattained by them, vary extremely in the differentof Europe, and in the great communities which have beenbeyond the Atlantic by the descendants of Europeans.

The world now contains several extensive regions, providedthe various ingredients of wealth in a degree of abundancewhich former ages had not even the idea. Without compulsory, an enormous mass of food is annuaLly extracted from the, and maintains, besides the actual producers, an equal,a greater number of labourers, occupied in producingand luxuries of innumerable kinds, or inthem from place to place; also a multitude ofemployed in directing and superintending these various; and over and above all these, a class more numerous thanthe most luxurious ancient societies, of persons whoseare of a kind not directly productive, and of personshave no occupation at all. The food thus raised supports alarger population than had ever existed (at least in the same) on an equal space of ground; and supports them with, exempt from those periodically

recurring famines soin the early history of Europe, and in Orientaleven now not unfrequent. Besides this great increase inquantity of food, it has greatly improved in quality and; while conveniences and luxuries, other than food, are nolimited to a small and opulent class, but descend, inabundance, through many widening strata in society. Theresources of one of these communities, when it choosesput them forth for any unexpected purpose; its ability tofleets and armies, to execute public works, eitheror ornamental, to perform national acts of beneficencethe ransom of the West India slaves; to found colonies, toits people taught, to do anything in short which requires, and to do it with no sacrifice of the necessaries orthe substantial comforts of its inhabitants, are such as thenever saw before.

But in all these particulars, characteristic of the moderncommunities, those communities differ widely from one. Though abounding in wealth as compared with former ages,do so in very different degrees. Even of the countries whichjustly accounted the richest, some have made a more completeof their productive resources, and have obtained, relativelytheir territorial extent, a much larger produce, than others;do they differ only in amount of wealth, but also in theof its increase. The diversities in the distribution ofare still greater than in the production. There are greatin the condition of the poorest class in different; and in the proportional numbers and opulence of thewhich are above the poorest. The very nature andof the classes who originally share among them theof the soil, vary not a little in different places. In, the landowners are a class in themselves, almost entirelyfrom the classes engaged in industry. in others, theof the land is almost universally its cultivator,the plough, and often himself holding it. Where thehimself does not cultivate, there is sometimes,him and the labourer, an intermediate agency, that of the, who advances the subsistence of the labourers, suppliesinstruments of production, and receives, after paying a rentthe landowner, all the produce: in other cases, the landlord,paid agents, and the labourers, are the only sharers., again, are sometimes carried on by scattered, who own or hire the tools or machinery they require,employ little labour besides that of their own family; incases, by large numbers working together in one building,expensive and complex machinery owned by rich manufacturers.same difference exists in the operations of trade. Theoperations indeed are everywhere carried on by large, where such exist; but the retail dealings, whichoccupy a very great amount of capital, are sometimesin small shops, chiefly by the personal exertions ofdealers themselves, with their families, and perhaps anor two; and sometimes in large establishments, ofthe funds are supplied by a wealthy individual or, and the agency is that of numerous salaried shopmenshopwomen. Besides these differences in the economicalpresented by different parts of what is usually calledcivilized world, all those earlier states which we previouslyin review, have continued in some part or other of the, down to our own time. Hunting communities still exist in, nomadic in Arabia and the steppes of Northern Asia;society is in essentials what it has always been; theempire of Russia is even now, in many respects, themodified image of feudal Europe. Every one of the greatof human society, down to that of the Esquimaux or, is still extant.

These remarkable differences in the state of differentof the human race, with regard to the production andof wealth, must, like all other phenomena, depend on. And it is not a sufficient explanation to ascribe themto the degrees of knowledge possessed at

differentand places, of the laws of nature and the physical arts of. Many other causes co-operate; and that very progress anddistribution of physical knowledge are partly the, as well as partly the causes, of the state of theand distribution of wealth.

In so far as the economical condition of nations turns uponstate of physical knowledge, it is a subject for the physical, and the arts founded on them. But in so far as theare moral or psychological, dependent on institutions andrelations, or on the principles of human nature, theirbelongs not to physical, but to moral and social, and is the object of what is called Political Economy.

The production of wealth; the extraction of the instrumentshuman subsistence and enjoyment from the materials of the, is evidently not an arbitrary thing. It has its necessary. Of these, some are physical, depending on theof matter, and on the amount of knowledge of thosepossessed at the particular place and time. TheseEconomy does not investigate, but assumes; referringthe grounds, to physical science or common experience.with these facts of outward nature other truthsto human nature, it attempts to trace the secondary orlaws, by which the production of wealth is determined;which must lie the explanation of the diversities of richespoverty in the present and past, and the ground of whateverin wealth is reserved for the future.

Unlike the laws of Production, those of Distribution areof human institution: since the manner in which wealth isin any given society, depends on the statutes ortherein obtaining. But though governments or nations havepower of deciding what institutions shall exist, they cannotdetermine how those institutions shall work. Theon which the power they possess over the distributionwealth is dependent, and the manner in which the distributioneffected by the various modes of conduct which society mayfit to adopt, are as much a subject for scientific enquiryany of the physical laws of nature.

The laws of Production and Distribution, and some of theconsequences deducible from them, are the subject offollowing treatise.

The Principles of Political Economy

John Stuart Mill1

the Requisites of Production

1. The requisites of production are two: labour, andnatural objects.

Labour is either bodily or mental; or, to express themore comprehensively, either muscular or nervous; andis necessary to include in the idea, not solely the exertion, but feelings of a disagreeable kind, all bodilyor mental annoyance, connected with the employmentone's thoughts, or muscles, or both, in a particular. Of the other requisite — appropriate natural objects- it is to be remarked, that some objects exist or grow up, of a kind suited to the supply of human wants.are caves and hollow trees capable of affording shelter., roots, wild honey, and other natural products, on whichlife can be supported; but even here a considerableof labour is generally required, not for the purpose of, but of finding and appropriating them. In all but theseand (except in the very commencement of human society)cases, the objects supplied by nature are onlyto human wants, after having undergone some degreetransformation by human exertion. Even the wild animals of theand of the sea, from which the hunting and fishing tribestheir sustenance — though the labour of which they aresubject is chiefly that required for appropriating them —yet, before they are used as food, be killed, divided into, and subjected in almost all cases to some culinary, which are operations requiring a certain degree of human. The amount of transformation which natural substancesbefore being brought into the shape in which they areapplied to human use, varies from this or a still lessof alteration in the nature and appearance of the object,a change so total that no trace is perceptible of the originaland structure. There is little resemblance between a piecea mineral substance found in the earth, and a plough, an axe,a saw. There is less resemblance between porcelain and thegranite it is made, or between sand mixed withweed, and glass. The difference is greater still between theof a sheep, or a handful of cotton seeds, and a web ofor broad cloth; and the sheep and seeds themselves are notgrowths, but results of previous labour and care. Inseveral cases the ultimate product is so extremelyto the substance supplied by nature, that in theof language nature is represented as only furnishing.

Nature, however, does more than supply materials; she alsopowers. The matter of the globe is not an inertof forms and properties impressed by human hands; itactive energies by which it co-operates with, and may even beas a substitute for, labour. In the early ages peopletheir corn into flour by pounding it between two; they next hit on a contrivance which enabled them, bya handle, to make one of the stones revolve upon the; and this process, a little improved, is still the commonof the East. The muscular exertion, however, which it, was very severe and exhausting, insomuch that it wasselected as a punishment for slaves who had offended their. When the time came at which the labour and sufferings ofwere thought worth economizing, the greater part of thisexertion was rendered unnecessary, by contriving that thestone should be made to revolve upon the lower, not bystrength, but by the force of the wind or of falling water.this case, natural agents, the wind or the gravitation of the, are made to do a portion of the work previously done by.

2. Cases like this, in which a certain amount of labour hasdispensed with, its work being devolved upon some natural, are apt to suggest an erroneous notion of the comparativeof labour and natural powers; as if the co-operation ofpowers with human industry were limited to the cases inthey are made to perform what would otherwise be done by; as if, in the case of things made (as the phrase is) by, nature only furnished passive materials. This is an. The powers of nature are as actively operative in thecase as in the other. A workman takes a stalk of the flax orplant, splits it into separate fibres, twines togetherof these fibres with his fingers, aided by a simplecalled a spindle; having thus formed a thread, he layssuch threads side by side, and places other similar threadsacross them, so that each passes alternately over andthose which are at right angles to it; this part of thebeing facilitated by an instrument called a shuttle. Henow produced a web of cloth, either linen or sackcloth,to the material. He is said to have done this by hand,natural force being supposed to have acted in concert with. But by what force is each step of this operation rendered, and the web, when produced, held together? By the, or force of cohesion, of the fibres: which is one offorces in nature, and which we can measure exactly againstmechanical forces, and ascertain how much of any of them itto neutralize or counterbalance.

If we examine any other case of what is called the action ofupon nature, we shall find in like manner that the powers of, or in other words the properties of matter, do all the, when once objects are put into the right position. This one, of putting things into fit places for being acted upontheir own internal forces, and by those residing in otherobjects, is all that man does, or can do, with matter. Hemoves one thing to or from another. He moves a seed into the; and the natural forces of vegetation produce ina root, a stem, leaves, flowers, and fruit. He movesaxe through a tree, and it falls by the natural force of; he moves a saw through it, in a particular manner,the physical properties by which a softer substance gives waya harder, make it separate into planks, which he arrangescertain positions, with nails driven through them, or adhesivebetween them, and produces a table, or a house. He moves ato fuel, and it ignites, and by the force generated init cooks the food, melts or softens the iron, convertsbeer or sugar the malt or cane-juice, which he hasmoved to the spot. He has no other means of acting onthan by moving it. Motion, and resistance to motion, areonly things which his muscles are constructed for. Bycontraction he can create a pressure on an outward, which, if sufficiently powerful, will set it in motion,if it be already moving, will check or modify or altogetherits motion, and he can do no more. But this is enough togiven all the command which mankind have acquired overforces immeasurably more powerful than themselves; awhich, great as it is already, is without doubt destinedbecome indefinitely greater. He exerts this power either byhimself of natural forces in existence, or by arrangingin those mixtures and combinations by which naturalare generated; as when by putting a lighted match to fuel,water into a boiler over it, he generates the expansive forcesteam, a power which has been made so largely available forattainment of human purposes.(1*)

Labour, then, in the physical world, is always and solelyin putting objects in motion; the properties of matter,laws of nature, do the rest. The skill and ingenuity of humanare chiefly exercised in discovering movements,by their powers, and capable of bringing about thewhich they desire. But, while movement is the only effectman can

immediately and directly produce by his muscles, itnot necessary that he should produce directly by them all thewhich he requires. The first and most obviousis the muscular action of cattle: by degrees theof inanimate nature are made to aid in this too, as bythe wind, or water, things already in motion, communicatepart of their motion to the wheels, which before that inventionmade to revolve by muscular force. This service is extortedthe powers of wind and water by a set of actions, consistingthe former in moving certain objects into certain positionswhich they constitute what is termed a machine; but theaction necessary for this is not constantly renewed, butonce for all, and there is on the whole a great economylabour.

3. Some writers have raised the question, whether naturemore assistance to labour in one kind of industry or in; and have said that in some occupations labour does most,others nature most. In this, however, there seems muchof ideas. The part which nature has in any work of man,indefinite and incommensurable. It is impossible to decidein any one thing nature does more than in any other. Oneeven say that labour does less. Less labour may be; but if that which is required is absolutely, the result is just as much the product of labour,of nature. When two conditions are equally necessary forthe effect at all, it is unmeaning to say that so muchit is produced by one and so much by the other; it is liketo decide which half of a pair of scissors has most toin the act of cutting; or which of the factors, five and six,most to the production of thirty. The form which thisusually assumes, is that of supposing that nature lendsassistance to human endeavours in agriculture, than in. This notion, held by the French Economistes, andwhich Adam Smith was not free, arose from a misconception ofnature of rent. The rent of land being a price paid for aagency, and no such price being paid in manufactures,writers imagined that since a price was paid, it wasthere was a greater amount of service to be paid for.a better consideration of the subject would have shownthe reason why the use of land bears a price is simply theof its quantity, and that if air, heat, electricity,agencies, and the other powers of nature employed by, were sparingly supplied, and could, like land, beand appropriated, a rent could he exacted for them.

4. This leads to a distinction which we shall find to be ofimportance. Of natural powers, some are unlimited, othersin quantity. By an unlimited quantity is of course notliterally, but practically unlimited: a quantity beyond thewhich can in any, or at least in present circumstances, beof it. Land is, in some newly settled countries, practicallyin quantity: there is more than can be used by thepopulation of the country, or by any accession likely tomade to it for generations to come. But even there, landsituated with regard to markets or means of carriage,generally limited in quantity: there is not so much of it aswould gladly occupy and cultivate, or otherwise turn to. In all old countries, land capable of cultivation, land atof any tolerable fertility, must be ranked among agentsin quantity. Water, for ordinary purposes, on the banksrivers or lakes, may be regarded as of unlimited abundance;if required for irrigation, it may even there be insufficientsupply all wants, while in places which depend for theiron cisterns or tanks, or on wells which are not, or are liable to fail, water takes its place amongthe quantity of which is most strictly limited. Whereitself is plentiful, yet waterpower, i.e. a fall of waterby its mechanical force to the service of industry,be exceedingly limited, compared with the use which would beof it if it were more abundant. Coal, metallic ores, anduseful substances found in the earth,

are still morethan land. They are not only strictly local but; though, at a given place and time, they may exist ingreater abundance than would be applied to present use eventhey could be obtained gratis. Fisheries, in the sea, are incases a gift of nature practically unlimited in amount; butArctic whale fisheries have long been insufficient for thewhich exists even at the very considerable price necessarydefray the cost of appropriation: and the immense extensionthe Southern fisheries have in consequence assumed, isto exhaust them likewise. River fisheries are a naturalof a very limited character, and would be rapidly, if allowed to be used by every one without restraint., even that state of it which we term wind, may, in most, be obtained in a quantity sufficient for everyuse; and so likewise, on the sea coast or on large, may water carriage: though the wharfage or harbour-roomto the service of that mode of transport is in manyfar short of what would be used if easily attainable.

It will be seen hereafter how much of the economy of societyon the limited quantity in which some of the mostnatural agents exist, and more particularly land. Forpresent I shall only remark that so long as the quantity of aagent is practically unlimited, it cannot, unlessof artificial monopoly, bear any value in the market,no one will give anything for what can be obtained gratis.as soon as a limitation becomes practically operative; asas there is not so much of the thing to be had, as would beand used if it could be obtained for asking; theor use of the natural agent acquires an exchangeable. When more water power is wanted in a particular district,there are falls of water to supply it, persons will give anfor the use of a fall of water. When there is morewanted for cultivation than a place possesses, or than itof a certain quality and certain advantages of, land of that quality and situation may be sold for a, or let for an annual rent. This subject will hereafter beat length; but it is often useful to anticipate, by asuggestion, principles and deductions which we have not yetthe place for exhibiting and illustrating fully.:. This essential and primary law of man's power over nature was,believe, first illustrated and made prominant as a fundamentalof Political Economy, in the first chapter of Mr.'s Elements.

The Principles of Political Economy

John Stuart Mill1:

Chapter 2

Labour as an Agent of Production

1. The labour which terminates in the production of anfitted for some human use, is either employed directlythe thing, or in previous operations destined to, perhaps essential to the possibility of, theones. In making bread, for example, the labourabout the thing itself is that of the baker; but theof the miller, though employed directly in the productionof bread but of flour, is equally part of the aggregate sumlabour by which the bread is produced; as is also the labourthe sower and of the reaper. Some may think that all theseought to be considered as employing their labour directlythe thing; the corn, the flour, and the bread being onein three different states. Without disputing about thisof mere language, there is still the ploughman, whothe ground for the seed, and whose labour never came inwith the substance in any of its states; and themaker, whose share in the result was still more remote.these persons ultimately derive the remuneration of theirfrom the bread, or its price: the plough-maker as much asrest; for since ploughs are of no use except for tilling the, no one would make or use ploughs for any other reason thanthe increased returns, thereby obtained from the ground,a source from which an adequate equivalent could befor the labour of the plough-maker. If the produce is toused or consumed in the form of bread, it is from the breadthis equivalent must come. The bread must suffice toall these labourers, and several others; such as theand bricklayers who erected the farm-buildings; theand ditchers who made the fences necessary for theof the crop; the miners and smelters who extracted orthe iron of which the plough and other instruments were. These, however, and the plough-maker, do not depend forremuneration upon the bread made from the produce of aharvest, but upon that made from the produce of all thewhich are successively gathered until the plough, or theand fences, are worn out. We must add yet another kindlabour; that of transporting the produce from the place of itsto the place of its destined use: the labour ofthe corn to market, and from market to the miller's, thefrom the miller's to the baker's, and the bread from the's to the place of its final consumption. This labour isvery considerable: flour is transported to England fromthe Atlantic, corn from the heart of Russia; and into the labourers immediately employed, the waggoners and, there are also costly instruments, such as ships, in theof which much labour has been expended: that labour,, not depending for its whole remuneration upon the bread,for a part only; ships being usually, during the course ofexistence, employed in the transport of many differentof commodities.

To estimate, therefore, the labour of which any givenis the result, is far from a simple operation. Thein the calculation are very numerous-as it may seem to some, infinitely sO; for if, as a part of the labour employedmaking bread, we count the labour of the blacksmith who madeplough, why not also (it may be asked) the labour of makingtools used by the blacksmith, and the tools used in makingtools, and so back to the origin of things? But afterone or two steps in this ascending scale, we come into aof factions too minute for calculation. Suppose, for, that the same plough will last, before being worn out,dozen years. Only one-twelfth of the labour of making themust be placed to the

account of each year's harvest. Apart of the labour of making a plough is an appreciable. But the same set of tools, perhaps, suffice to themaker for forging a hundred ploughs, which serve duringtwelve years of their existence to prepare the soil of asdifferent farms. A twelve-hundredth part of the labour ofhis tools, is as much, therefore, as has been expended inone year's harvest of a single farm: and when thiscomes to be further apportioned among the various sackscorn and loaves of bread, it is seen at once that suchare not worth taking into the account for anypurpose connected with the commodity. It is true thatthe tool-maker had not laboured, the corn and bread neverhave been produced; but they will not be sold a tenth parta farthing dearer in consideration of his labour.

2. Another of the modes in which labour is indirectly orinstrumental to the production of a thing, requiresnotice: namely, when it is employed in producing, to maintain the labourers while they are engaged inproduction. This previous employment of labour is ancondition to every productive operation, on anythan the very smallest scale. Except the labour of theand fisher, there is scarcely any kind of labour to whichreturns are immediate. Productive operations require to bea certain time, before their fruits are obtained.the labourer, before commencing his work, possesses aof food, or can obtain access to the stores of some one, in sufficient quantity to maintain him until the productioncompleted, he can undertake no labour but such as can beon at odd intervals, concurrently with the pursuit of his. He cannot obtain food itself in any abundance; formode of so obtaining it, requires that there be alreadyin store. Agriculture only brings forth food after the lapsemonths; and though the labours of the agriculturist are notcontinuous during the whole period, they must occupyconsiderable part of it. Not only is agriculture impossiblefood produced in advance, but there must be a very greatin advance to enable any considerable community toitself wholly by agriculture. A country like England oris only able to carry on the agriculture of the present, because that of past years has provided, in those countriessomewhere else, sufficient food to support their agriculturaluntil the next harvest. They are only enabled toso many other things besides food, because the food whichin store at the close of the last harvest suffices tonot only the agricultural labourers, but a largepopulation besides.

The labour employed in producing this stock of subsistence,a great and important part of the past labour which hasnecessary to enable present labour to be carried on. Butis a difference, requiring particular notice, between thisthe other kinds of previous or preparatory labour. The, the reaper, the ploughman, the plough-maker, the waggonerwaggon-maker, even the sailor and ship-builder when employed,their remuneration from the ultimate product-the breadfrom the corn on which they have severally operated, orthe instruments for operating. The labour that producedfood which fed all these labourers, is as necessary to theresult, the bread of the present harvest, as any ofother portions of labour; but is not, like them,from it. That previous labour has received itsfrom the previous food. In order to raise any, there are needed labour, tools, and materials, and foodfeed the labourers. But the tools and materials are of no usefor obtaining the product, or at least are to be appliedno other use, and the labour of their construction can beonly from the product when obtained. The food, on the, is intrinsically useful, and is applied to the directof feeding human beings. The labour expended in

producing the, and recompensed by it, needs not be remunerated over againthe produce of the subsequent labour which it has fed. If wethat the same body of labourers carried on a manufacture,grew food to sustain themselves while doing it, they have hadtheir trouble the food and the manufactured article; but ifalso grew the material and made the tools, they have hadfor that trouble but the manufactured article alone.

The claim to remuneration founded on the possession of food,for the maintenance of labourers, is of another kind;for abstinence, not for labour. If a person has aof food, he has it in his power to consume it himself in, or in feeding others to attend on him, or to fight for, or to sing or dance for him. If, instead of these things, heit to productive labourers to support them during their, he can, and naturally will, claim a remuneration from the. He will not be content with simple repayment; if hemerely that, he is only in the same situation as at, and has derived no advantage from delaying to apply histo his own benefit or pleasure. He will look for somefor this forbearance: he will expect his advance ofto come back to him with an increase, called in the languagebusiness, a profit; and the hope of this profit will generallybeen a part of the inducement which made him accumulate a, by economizing in his own consumption; or, at any rate,made him forego the application of it, when accumulated, topersonal ease or satisfaction. The food also which maintainedworkmen while producing the tools or materials, must haveprovided in advance by some one, and he, too, must have hisfrom the ultimate product; but there is this difference,here the ultimate product has to supply not only the profit,also the remuneration of the labour. The tool-maker (say, for, the ploughmaker) does not indeed usually wait for hisuntil the harvest is reaped; the farmer advances it to, and steps into his place by becoming the owner of the. Nevertheless, it is from the harvest that the payment iscome; since the farmer would not undertake this outlay unlessexpected that the harvest would repay him, and with a profiton this fresh advance; that is, unless the harvest would, besides the remuneration of the farm labourers (and afor advancing it) , a sufficient residue to remunerate themaker's labourers, give the plough-maker a profit, and ato the farmer on both.

3. From these considerations it appears, that in anand classification of the kinds of industry which arefor the indirect or remote furtherance of otherlabour, we need not include the labour of producingor other necessaries of life to be consumed bylabourers; for the main end and purpose of this labourthe subsistence itself; and though the possession of a storeit enables other work to be done, this is but an incidental. The remaining modes in which labour is indirectlyto production, may be arranged under five heads.

First: Labour employed in producing materials, on whichis to be afterwards employed. This is, in many cases, aof mere appropriation; extractive industry, as it has beennamed by M. Dunoyer . The labour of the miner, for example,of operations for digging out of the earth substancesby industry into various articles fitted for human. Extractive industry, however, is not confined to theof materials. Coal, for instance, is employed, notin the process of industry, but in directly warming human. When so used, it is not a material of production, but isthe ultimate product. So, also, in the case of a mine ofstones. These are to some small extent employed in thearts, as diamonds by the glass-cutter, emery andfor polishing, but their principal destination, that of, is a direct use;

though they commonly require, beforeso used, some process of manufacture, which may perhapsour regarding them as materials. Metallic ores of allare materials merely.

Under the head, production of materials, we must include theof the wood-cutter, when employed in cutting andtimber for building, or wood for the purposes of the's or any other art. In the forests of America, Norway,, the Pyrenees and Alps, this sort of labour is largelyon trees of spontaneous growth. In other cases, we mustto the labour of the wood-cutter that of the planter and.

Under the same head are also comprised the labours of thein growing flax, hemp, cotton, feeding silkworms,food for cattle, producing bark, dye-stuffs, someplants, and many other things only useful becausein other departments of industry. So, too, the labour ofhunter, as far as his object is furs or feathers; of theand the cattle-breeder, in respect of wool, hides, horn,, horse-hair, and the like. The things used as materialssome process or other of manufacture are of a mostcharacter, drawn from almost every quarter of the, vegetable, and mineral kingdoms. And besides this, theproducts of many branches of industry are the materialsothers. The thread produced by the spinner is applied toany use except as material for the weaver. Even theof the loom is chiefly used as material for theof articles of dress or furniture, or of furtherof productive industry, as in the case of the. The currier and tanner find their whole occupation inraw material into what may be termed prepared. In strictness of speech, almost all food, as it comesthe hands of the agriculturist, is nothing more thanfor the occupation of the baker or the cook.

4. The second kind of indirect labour is that employed intools or implements for the assistance of labour. I useterms in their most comprehensive sense, embracing allinstruments or helps to production, from a flint andfor striking a light, to a steam ship, or the most complexof manufacturing machinery. There may be somewhere to draw the line between implements and; and some things used in production (such as fuel)scarcely in common language be called by either name,phraseology being shaped out by a different class offrom those of scientific exposition. To avoid aof classes and denominations answering toof no scientific importance, political economistsinclude all things which are used as immediate means of(the means which are not immediate will be considered) either in the class of implements or in that of. Perhaps the line is most usually and most conveniently, by considering as a material every instrument ofwhich can only be used once, being destroyed (at leastan instrument for the purpose in hand) by a single employment.fuel, once burnt, cannot be again used as fuel; what can beused is only any portion which has remained unburnt the first. And not only it cannot be used without being consumed, butis only useful by being consumed; for if no part of the fueldestroyed, no heat would be generated. A fleece, again, isas a fleece by being spun into thread; and the threadbe used as thread when woven into cloth. But an axe is notas an axe by cutting down a tree: it may be usedto cut down a hundred or a thousand more; and thoughin some small degree by each use, it does not do itsby being deteriorated, as the coal and the fleece do theirsbeing destroyed; on the contrary, it is the better instrumentbetter it resists deterioration. There are some things,classed as materials, which may be used as such a seconda third time, but not while the product to which they atcontributed remains in existence. The iron which formed aor a set of pipes may be melted to form a plough or aengine; the stones with which a house was built may be usedit is pulled down, to build

another. But this cannot bewhile the original product subsists; their function asis suspended, until the exhaustion of the first use.so with the things classed as implements; they may be usedfor fresh work, until the time, sometimes very, at which they are worn out, while the work already donethem may subsist unimpaired, and when it perishes, does so byown laws, or by casualties of its own.(1*)

The only practical difference of much importance arising fromdistinction between materials and implements, is one whichattracted our attention in another case. Since materials areas such by being once used, the whole of the labourfor their production, as well as the abstinence of thewho supplied the means for carrying it on, must befrom the fruits of that single use. Implements, oncontrary, being susceptible of repeated employment, the wholethe products which they are instrumental in bringing intoare a fund which can be drawn upon to remunerate theof their construction, and the abstinence of those byaccumulations that labour was supported. It is enough ifproduct contributes a fraction, commonly an insignificant, towards the remuneration of that labour and abstinence, orindemnifying the immediate producer for advancing thatto the person who produced the tools.

5. Thirdly: Besides materials for industry to employ itself, and implements to aid it, provision must be made to preventoperations from being disturbed, and its products injured,by the destroying agencies of nature, or by the violencerapacity of men. This gives rise to another mode in whichnot employed directly about the product itself, isto its production; namely, when employed for theof industry. Such is the object of all buildings forpurposes; all manufactories, warehouses, docks,, barns, farm-buildings devoted to cattle, or to theof agricultural labour. I exclude those in which thelive, or which are destined for their personal: these, like their food, supply actual wants, andbe counted in the remuneration of their labour. There aremodes in which labour is still more directly applied to theof productive operations. The herdsman has littleoccupation than to protect the cattle from harm: theagencies concerned in the realization of the product, gonearly of themselves. I have already mentioned the labour ofhedger and ditcher, of the builder of walls or dykes. Tomust be added that of the soldier, the policeman, and the. These functionaries are not indeed employed exclusively inprotection of industry, nor does their payment constitute, toindividual producer, a part of the expenses of production.they are paid from the taxes, which are derived from theof industry; and in any tolerably governed country theyto its operations a service far more than equivalent tocost. To society at large they are therefore part of theof production; and if the returns to production were notto maintain these labourers in addition to all therequired, production, at least in that form and manner,not take place. Besides, if the protection which theaffords to the operations of industry were not, the producers would be under a necessity of eithera large share of their time and labour from, to employ it in defence, or of engaging armed men tothem; all which labour, in that case, must be directlyfrom the produce; and things which could not pay foradditional labour, would not be produced. Under the present, the product pays its quota towards the same, and notwithstanding the waste and prodigalityto government expenditure, obtains it of better qualitya much smaller cost.

6. Fourthly: There is a very great amount of labour employed,in bringing the product into existence, but in rendering it,in existence, accessible to those for whose use it

is. Many important classes of labourers find their solein some function of this kind. There is first theclass of carriers, by land or water. muleteers, waggoners,, sailors, wharfmen, coalheavers, porters, railway, and the like. Next, there are the constructors ofthe implements of transport; ships, barges, carts,, &c., to which must be added roads, canals, and. Roads are sometimes made by the government, and openedto the public; but the labour of making them is notless paid for from the produce. Each producer, in paying hisof the taxes levied generally for the construction of, pays for the use of those which conduce to his; and if made with any tolerable judgment, theythe returns to his industry by far more than anamount.

Another numerous class of labourers employed in rendering theproduced accessible to their intended consumers, is theof dealers and traders, or, as they may be termed,. There would be a great waste of time and trouble,an inconvenience often amounting to impracticability , ifcould only obtain the articles they want by treatingwith the producers. Both producers and consumers are tooscattered, and the latter often at too great a distance fromformer. To diminish this loss of time and labour, theof fairs and markets was early had recourse to, whereand producers might periodically meet, without anyagency; and this plan answers tolerably well forarticles, especially agricultural produce, agriculturistsat some seasons a certain quantity of spare time on their. But even in this case, attendance is often veryand inconvenient to buyers who have other, and do not live in the immediate vicinity; while,all articles the production of which requires continuousfrom the producers, these periodical markets must beat such considerable intervals, and the wants of themust either be provided for so long beforehand, or mustso long unsupplied, that even before the resources ofadmitted of the establishment of shops, the supply ofwants fell universally into the hands of itinerant dealers:pedlar, who might appear once a month, being preferred to the, which only returned once or twice a year. In country, remote from towns or large villages, the industry ofpedlar is not yet wholly superseded. But a dealer who has aabode and fixed customers is so much more to be depended, that consumers prefer resorting to him if he is conveniently; and dealers therefore find their advantage inthemselves in every locality where there areconsumers near at hand to afford them a remuneration.

In many cases the producers and dealers are the same persons,least as to the ownership of the funds and the control of the. The tailor, the shoemaker, the baker, and many other, are the producers of the articles they deal in, so farregards the last stage in the production. This union, however,the functions of manufacturer and retailer is only expedientthe article can advantageously be made at or near the placefor retailing it, and is, besides, manufactured andin small parcels. When things have to be brought from a, the same person cannot effectually superintend both theand the retailing of them; when they are best and mostmade on a large scale, a single manufactory requires solocal channels to carry off its supply, that the retailingmost conveniently delegated to other agency; and even shoescoats, when they are to be furnished in large quantities at, as for the supply of a regiment or of a workhouse, areobtained not directly from the producers, but fromdealers, who make it their business to ascertainwhat producers they can be obtained best and cheapest. Eventhings are destined to be at last sold by retail,soon creates a class of wholesale dealers. Whenand transactions have multiplied beyond a certain point;one

manufactory supplies many shops, and one shop has oftenobtain goods from many different manufactories, the loss ofand trouble both to the manufacturers and to the retailerstreating directly with one another makes it more convenient toto treat with a smaller number of great dealers or, who only buy to sell again, collecting goods from theproducers and distributing them to the retailers, to bethem further distributed among the consumers. Of these variousis composed the Distributing Class, whose agency isto that of the Producing Class: and the produce so, or its price, is the source from which theare remunerated for their exertions, and for thewhich enabled them to advance the funds needful forbusiness of distribution.

7. We have now completed the enumeration of the modes inlabour employed on external nature is subservient to. But there is yet another mode of employing labour,conduces equally, though still more remotely, to that end:is, labour of which the subject is human beings. Every humanhas been brought up from infancy at the expense of muchto some person or persons, and if this labour, or part of, had not been bestowed, the child would never have attainedage and strength which enable him to become a labourer in his. To the community at large, the labour and expense ofits infant population form a part of the outlay which iscondition of production, and which is to be replaced withfrom the future produce of their labour. By the, this labour and expense are usually incurred frommotives than to obtain such ultimate return, and, for mostof political economy, need not be taken into account asof production. But the technical or industrial educationthe community; the labour employed in learning and in teachingarts of production, in acquiring and communicating skill inarts; this labour is really, and in general solely,for the sake of the greater or more valuable produceattained, and in order that a remuneration, equivalent orthan equivalent, may be reaped by the learner, besides anremuneration for the labour of the teacher, when ahas been employed.

As the labour which confers productive powers, whether ofor of head, may be looked upon as part of the labour bysociety accomplishes its productive operations, or in other, as part of what the produce costs to society, so too maylabour employed in keeping up productive powers; inthem from being destroyed or weakened by accident or. The labour of a physician or surgeon, when made use ofpersons engaged in industry, must be regarded in the economysociety as a sacrifice incurred, to preserve from perishing byor infirmity that portion of the productive resources ofwhich is fixed in the lives and bodily or mental powersits productive members. To the individuals, indeed, this formsa part, sometimes an imperceptible part, of the motives thatthem to submit to medical treatment: it is not principallyeconomical motives that persons have a limb amputated, orto be cured of a fever, though when they do so, theregenerally sufficient inducement for it even on that score. This is, therefore, one of the cases of labour and outlay, though conducive to production, yet not being incurred forend, or for the sake of the returns arising from it, are outthe sphere of most of the general propositions which politicalhas occasion to assert respecting productive labour:, when society and not the individuals are considered, thisand outlay must be regarded as part of the advance bysociety effects its productive operations, and for which itindemnified by the produce.

8. Another kind of labour, usually classed as mental, butto the ultimate product as directly, though not so, as manual labour itself, is the labour of theof industrial processes. I

say, usually classed as, because in reality it is not exclusively so. All humanis compounded of some mental and some bodily elements.stupidest hodman, who repeats from day to day the mechanicalof climbing a ladder, performs a function partly; so much so, indeed, that the most intelligent dogelephant could not, probably, be taught to do it. The dullestbeing, instructed beforehand, is capable of turning a mill;a horse cannot turn it without somebody to drive and watch. On the other hand, there is some bodily ingredient in themost purely mental, when it generates any external result.could not have produced the Principia without the bodilyeither of penmanship or of dictation; and he must havemany diagrams, and written out many calculations and, while he was preparing it in his mind. Inventors,the labour of their brains, generally go through muchwith their hands, in the models which they construct andexperiments they have to make before their idea can realizesuccessfully in act. Whether mental, however, or bodily,labour is a part of that by which the production is brought. The labour of Watt in contriving the steam-engine was asa part of production as that of the mechanics who buildthe engineers who work the instrument; and was undergone, nothan theirs, in the prospect of a remuneration from the. The labour of invention is often estimated and paid onvery same plan as that of execution. Many manufacturers ofgoods have inventors in their employment, who receiveor salaries for designing patterns, exactly as others docopying them. All this is strictly part of the labour of; as the labour of the author of a book is equally aof its production with that of the printer and binder.

In a national, or universal point of view, the labour of the, or speculative thinker, is as much a part of productionthe very narrowest sense, as that of the inventor of aart; many such inventions having been the directof theoretic discoveries, and every extension ofof the powers of nature being fruitful of applicationsthe purposes of outward life. The electro-magnetic telegraphthe wonderful and most unexpected consequence of theof OErsted and the mathematical investigations ofère: and the modern art of navigation is an unforeseenfrom the purely speculative and apparently merelyenquiry, by the mathematicians of Alexandria, into theof three curves formed by the intersection of a planeand a cone. No limit can be set to the importance, evena purely productive and material point of view, of mere. Inasmuch, however, as these material fruits, though the, are seldom the direct purpose of the pursuits of savants,is their remuneration in general derived from the increasedwhich may be caused incidentally, and mostly after ainterval, by their discoveries; this ultimate influence does, for most of the purposes of political economy, require to beinto consideration; are generally classed as the producersof books, or other useable or saleable articles, whichemanate from them. But when (as in political economy onealways be prepared to do) we shift our point of view, andnot individual acts, and the motives by which they are, hut national and universal results, intellectualmust be looked upon as a most influential part of thelabour of society, and the portion of its resourcesin carrying on and in remunerating such labour, as aproductive part of its expenditure.

9. In the foregoing survey of the modes of employing labourfurtherance of production, I have made little use of thedistinction of industry into agricultural, manufacturing,commercial. For, in truth, this division fulfils very badlypurposes of a classification. Many great branches ofindustry find no place in it, or not without much; for

example (not to speak of hunters or fishers) the, the road-maker, and the sailor. The limit, too, betweenand manufacturing industry cannot be precisely. The miller, for instance, and the baker-are they to beamong agriculturists, or among manufacturers? Theiris in its nature manufacturing; the food has finallycompany with the soil before it is handed over to them:, however, might be said with equal truth of the thresher,winnower, the makers of butter and cheese; operations alwaysas agricultural, probably because it is the custom forto be performed by persons resident on the farm, and undersame superintendence as tillage. For many purposes all these, the miller and baker inclusive, must be placed in theclass with ploughmen and reapers. They are all concerned infood, and depend for their remuneration on the food; when the one class abounds and flourishes, the othersso too; they form collectively the "agricultural interest;"render but one service to the community by their united, and are paid from one common source. Even the tillers ofsoil, again, when the produce is not food, but the materialswhat are commonly termed manufactures, belong in many respectsthe same division in the economy of society as manufacturers.cotton-planter of Carolina, and the wool-grower of Australia,more interests in common with the spinner and weaver thanthe corngrower. But, on the other hand, the industry whichimmediately upon the soil has, as we shall see, some properties on which many important consequences, and which distinguish it from all the subsequent stagesproduction, whether carried on by the same person or not; fromindustry of the thresher and winnower, as much as from thatthe cotton-spinner. When I speak, therefore, of agricultural, I shall generally mean this, and this exclusively, unlesscontrary is either stated or implied in the context. The termis too vague to be of much use when precision is, and when I employ it, I wish to be understood asto speak popularly rather than scientifically.:. The able and friendly reviewer of this treatise in theReview (October 1848) conceives the distinction betweenand implements rather differently; proposing toas materials "all things which, after having undergonechange implied in production, are themselves matter of," and as implements (or instruments) "the things whichemployed in producing that change, but do not themselvespart of the exchangeable result." According to these, the fuel consumed in a manufactory would be, not as a material, but as an instrument. This use ofterms accords better that that proposed in the text,with thephysical meaning of the word "material"; but theon which it is grounded is one almost irrelevant toeconomy.

The Principles of Political Economy

John Stuart Mill1,

Chapter 3

Unproductive Labour

1. Labour is indispensable to production, but has not alwaysfor its effect. There is much labour, and of a highof usefulness, of which production is not the object.has accordingly been distinguished into Productive and. There has been not a little controversy amongeconomists on the question, what kinds of labour shouldreputed to be unproductive; and they have not always, that there was in reality no matter of fact in disputethem.

Many writers have been unwilling to class any labour as, unless its result is palpable in some material, capable of being transferred from one person to another.are others (among whom are Mr. M'Culloch and M. Say) whoupon the word unproductive as a term of disparagement,against imposing it upon any labour which is regardeduseful- which produces a benefit or a pleasure worth the cost.labour of officers of government, of the army and navy, of, lawyers, teachers, musicians, dancers, actors,servants, &c., when they really accomplish what they arefor, and are not more numerous than is required for its, ought not, say these writers, to be "stigmatized" as, an expression which they appear to regard aswith wasteful or worthless. But this seems to be aof the matter in dispute. Production not beingsole end of human existence, the term unproductive does notimply any stigma; nor was ever intended to do so inpresent case. The question is one of mere language and. Differences of language, however, are by no means, even when not grounded on differences of opinion;though either of two expressions may be consistent with thetruth, they generally tend to fix attention upon differentof it. We must therefore enter a little into theof the various meanings which may attach to theproductive and unproductive when applied to labour.

In the first place, even in what is called the production ofobjects, it must be remembered that what is produced isthe matter composing them. All the labour of all the humanin the world could not produce one particle of matter. Tobroadcloth is but to rearrange, in a peculiar manner, theof wool; to grow corn is only to put a portion ofcalled a seed, into a situation where it can draw togetherof matter from the earth and air, to form the newcalled a plant. Though we cannot create matter, wecause it to assume properties, by which, from having beento us, it becomes useful. What we produce, or desire to, is always, as M. Say rightly terms it, an utility.is not creative of objects, but of utilities. Neither,, do we consume and destroy the objects themselves; theof which they were composed remains, more or less alteredform: what has really been consumed is only the qualities bythey were fitted for the purpose they have been applied to.is, therefore, pertinently asked by M. Say and others-since,we are said to produce objects, we only produce utility, whynot all labour which produces utility be accounted? Why refuse that title to the surgeon who sets a limb,judge or legislator who confers security, and give it to thewho cuts and polishes a diamond? Why deny it to thefrom whom I learn an art by which I can gain my bread,accord it to the confectioner who makes bonbons for thepleasure of a sense of taste.

It is quite true that all these kinds of labour areof utility; an the question which now occupies usnot have been a question at all, if the production ofwere enough to satisfy the notion which mankind haveformed of productive labour. Production, and productive,of course elliptical expressions, involving the idea of aproduced; but this something, in common apprehension, Ito be, not utility, but Wealth. Productive labour meansproductive of wealth. We are recalled, therefore, to thetouched upon in our first chapter, what Wealth is, andonly material products, or all useful products, are to bein it.

2. Now the utilities produced by labour are of three kinds.are,

First, utilities fixed and embodied in outward objects; byemployed in investing external material things withwhich render them serviceable to human beings. This iscommon case, and requires no illustration.

Secondly, utilities fixed and embodied in human beings; thebeing in this case employed in conferring on human beings,which render them serviceable to themselves and others.this class belongs the labour of all concerned in education;only schoolmasters, tutors, and professors, but governments,far as they aim successfully at the improvement of the people;, and clergymen, as far as productive of benefit; theof physicians, as far as instrumental in preserving lifephysical or mental efficiency; of the teachers of bodily, and of the various trades, sciences, and arts,with the labour of the learners in acquiring them; andlabour bestowed by any persons, throughout life, in improvingknowledge or cultivating the bodily or mental faculties ofor others.

Thirdly and lastly, utilities not fixed or embodied in any, but consisting in a mere service rendered; a pleasure, an inconvenience or a pain averted, during a longer or atime, but without leaving a permanent acquisition in thequalities of any person or thing; the labour beingin producing an utility directly, not (as in the twocases) in fitting some other thing to afford an utility., for example, is the labour of the musical performer, the, the public declaimer or reciter, and the showman. Somemay no doubt be produced, and much more might be produced,the moment, upon the feelings and disposition, or generalof enjoyment of the spectators; or instead of good therebe harm; but neither the one nor the other is the effect, is the result for which the exhibitor works and thepays; nothing but the immediate pleasure. Such, again,the labour of the army and navy; they, at the best, prevent afrom being conquered, or from being injured or insulted,is a service, but in all other respects leave the countryimproved nor deteriorated. Such, too, is the labour oflegislator, the judge, the officer of justice, and all otherof government, in their ordinary functions, apart from anythey may exert on the improvement of the national mind.service which they render, is to maintain peace and security;compose the utility which they produce. It may appear to, that carriers, and merchants or dealers, should be placedthis same class, since their labour does not add anyto objects: but I reply that it does: it adds theof being in the place where they are wanted, instead ofin some other place: which is a very useful property, andutility it confers is embodied in the things themselves,now actually are in the place where they are required for, and in consequence of that increased utility could be soldan increased price, proportioned to the labour expended init. This labour, therefore, does not belong to theclass, but to the first.

3. We have now to consider which of these three classes ofshould be accounted productive of wealth, since that isthe term productive, when used by itself, must be understoodimport. Utilities of the third class, consisting in pleasuresonly exist while being enjoyed, and services which onlywhile being performed, cannot be spoken of as wealth,by an acknowledged metaphor. It is essential to the ideawealth to be susceptible of accumulation: thing which cannot,being produced, be kept for some time before being used,never, I think, regarded as wealth, since however much ofmay be produced and enjoyed, the person benefited by them isricher, is nowise improved in circumstances. But there is notdistinct and positive a violation of usage in considering asany product which is both useful and susceptible of. The skill, and the energy and perseverance, of theof a country, are reckoned part of its wealth, no lesstheir tools and machinery.(1*) According to this definition,should regard all labour as productive which is employed inpermanent utilities, whether embodied in human beings,in any other animate or inanimate objects. This nomenclature I, in a former publication,(2*) recommended, as most conducivethe ends of classification; and I am still of that opinion.

But in applying the term wealth to the industrial capacitieshuman being, there seems always, in popular apprehension, toa tacit reference to material products. The skill of anis accounted wealth, only as being the means of acquiringin a material sense; and any qualities not tending visiblythat object are scarcely so regarded at all. A country wouldbe said to be richer, except by a metaphor, howevera possession it might have in the genius, the virtues,the accomplishments of its inhabitants; unless indeed theselooked upon as marketable articles, by which it couldthe material wealth of other countries, as the Greeks of, and several modern nations have done. While, therefore, Iprefer, were I constructing a new technical language, tothe distinction turn upon the permanence rather than uponmateriality of the product, yet when employing terms whichusage has taken complete possession of, it seems advisableto employ them as to do the least possible violence to usage;any improvement in terminology obtained by straining themeaning of a popular phrase, is generally purchasedits value, by the obscurity arising from the conflictnew and old associations.

I shall, therefore, in this treatise, when speaking of, understand by it only what is called material wealth, andproductive labour only those kinds of exertion which produceembodied in material objects. But in limiting myself tosense of the word, I mean to avail myself of the full extentthat restricted acceptation, and I shall not refuse theproductive, to labour which yields no materialas its direct result, provided that an increase ofproducts is its ultimate consequence. Thus, labourin the acquisition of manufacturing skill, I class as, not in virtue of the skill itself, but of theproducts created by the skill, and to the creationwhich the labour of learning the trade is essentially. The labour of officers of government in affording thewhich, afforded in some manner or other, isto the prosperity of industry, must be classed aseven of material wealth, because without it, material, in anything like its present abundance, could not exist.labour may be said to be productive indirectly or mediately,opposition to the labour of the ploughman and thespinner, which are productive immediately. They are allin this, that they leave the community richer in materialthan they found it; they increase, or tend to increase,wealth.

4. By Unproductive Labour, on the contrary, will belabour which does not terminate in the creation ofwealth; which, however largely or successfully, does not render the community, and the world at large,in material products, but poorer by all that is consumedthe labourers while so employed.

All labour is, in the language of political economy,, which ends in immediate enjoyment, without anyof the accumulated stock of permanent means of. And all labour, according to our present definition,be classed as unproductive, which terminates in a permanent, however important, provided that an increase of materialforms no part of that benefit. The labour of saving a's life is not productive, unless the friend is alabourer, and produces more than he consumes. To aperson the saving of a soul must appear a far moreservice than the saving of a life; but he will notcall a missionary or a clergyman productive labourers,they teach, as the South Sea Missionaries have in somedone, the arts of civilization in addition to the doctrinestheir religion. It is, on the contrary, evident that thenumber of missionaries or clergymen a nation maintains,less it has to expend on other things; while the more itjudiciously in keeping agriculturists and manufacturerswork, the more it will have for every other purpose. By theit diminishes, caeteris paribus, its stock of material; by the latter, it increases them.

Unproductive may be as useful as productive labour; it may beuseful, even in point of permanent advantage; or its use mayonly in pleasurable sensation, which when gone leaves no; or it may not afford even this, but may be absolute waste.any case society or mankind grow no richer by it, but poorer.material products consumed by any one while he produces, are so much subtracted, for the time, from the materialwhich society would otherwise have possessed. But thoughgrows no richer by unproductive labour, the individual. An unproductive labourer may receive for his labour, fromwho derive pleasure or benefit from it, a remunerationmay be to him a considerable source of wealth; but his gainbalanced by their loss; they may have received a fullfor their expenditure, but they are so much poorer by. When a tailor makes a coat and sells it, there is a transferthe price from the customer to the tailor, and a coat besidesdid not previously exist; but what is gained by an actor ismere transfer from the spectator's funds to his, leaving noof wealth for the spectator's indemnification. Thus thecollectively gains nothing by the actor's labour; andloses, of his receipts, all that portion which he consumes,only that which he lays by. A community, however, mayto its wealth by unproductive labour, at the expense of other, as an individual may at the expense of other. The gains of Italian opera singers, German, French ballet dancers, &c., are a source of wealth,far as they go, to their respective countries, if they return. The petty states of Greece, especially the ruder andbackward of those states, were nurseries of soldiers, whothemselves to the princes and satraps of the East to carryuseless and destructive wars, and returned with their savingspass their declining years in their own country.. these werelabourers, and the pay they received, together withplunder they took, was an outlay without return to thewhich furnished it; but, though no gain to the world,was a gain to Greece. At a later period the same country andcolonies supplied the Roman empire with another class of, who, under the name of philosophers or of, taught to the youth of the higher classes what werethe most valuable accomplishments : these were mainlylabourers, but their ample recompense was a sourcewealth to their own country. In none of these cases was thereaccession of

wealth to the world. The services of the, if useful, were obtained at a sacrifice to the worlda portion of material wealth; if useless, all that theseconsumed was to the world waste.

To be wasted, however, is a liability not confined tolabour. Productive labour may equally be wasted, ifof it is expended than really conduces to production. Ifof skill in labourers, or of judgment in those who direct, causes a misapplication of productive industry; if a farmerin ploughing with three horses and two men, whenhas shown that two horse and one man are sufficient,surplus labour, though employed for purposes of production,wasted. If a new process is adopted which proves no better, orso good as those before in use, the labour expended inthe invention and in carrying it into practice, thoughfor a productive purpose, is wasted. Productive labourrender a nation poorer, if the wealth it produces, that is,increase it makes in the stock of useful or agreeable things,of a kind not immediately wanted: as when a commodity is, because produced in a quantity beyond the present; or when speculators build docks and warehouses beforeis any trade. Some of the States of North America, bypremature railways and canals, are thought to have madekind of mistake; and it was for some time doubtful whether, in the disproportionate development of railway, had not, in some degree, followed the example. Labourin expectation of a distant return, when the greator limited resources of the community require that thebe rapid, may leave the country not only poorer in the, by all which those labourers consume, but less richultimately than if immediate returns had been sought in theinstance, and enterprises for distant profit postponed.

5. The distinction of Productive and Unproductive isto consumption as well as to labour. All the membersthe community are not labourers, hut all are consumers, andeither unproductively or productively. Whoevernothing directly or indirectly to production, is anconsumer. The only productive consumers arelabourers; the labour of direction being of course, as well as that of execution. But the consumption evenproductive labourers is not all of it productive consumption.is unproductive consumption by productive consumers. Whatconsume in keeping up or improving their health, strength,capacities of work, or in rearing other productive labourerssucceed them, is productive consumption. But consumption onor luxuries, whether by the idle or by the industrious,production is neither its object nor is in any way advancedit, must be reckoned unproductive: with a reservation perhapsa certain quantum of enjoyment which may be classed among, since anything short of it would not be consistentthe greatest efficiency of labour. That alone is productive, which goes to maintain and increase the productiveof the community; either those residing in its soil, inmaterials, in the number and efficiency of its instruments of, or in its people.

There are numerous products which may be said not to admit ofconsumed otherwise than unproductively. The annualof gold lace, pine apples, or champagne, must beunproductive, since these things give no assistance to, nor any support to life or strength, but what wouldbe given by things much less costly. Hence it might bethat the labour employed in producing them ought not toregarded as productive, in the sense in which the term isby political economists. I grant that no labour tendsthe permanent enrichment of society, which is employed inthings for the use of unproductive consumers. Thewho makes a coat for a man who produces nothing, is alabourer; but in a few weeks or months the coat isout, while the wearer has not produced anything to replace, and the

community is then no richer by the labour of the, than if the same sum had been paid for a stall at the. Nevertheless, society has been richer by the labour whilecoat lasted, that is, until society, through one of itsmembers, chose to consume the produce of the labour. The case of the gold lace or the pine apple is nodifferent, than that they are still further removed thancoat from the character of necessaries. These things also areuntil they have been consumed.

6. We see, however, by this, that there is a distinction,important to the wealth of a community than even thatproductive and unproductive labour; the distinction,, between labour for the supply of productive, and for theof unproductive, consumption; between labour employed inup or in adding to the productive resources of the, and that which is employed otherwise. Of the produce ofcountry, a part only is destined to be consumed productively;remainder supplies the unproductive consumption of producers,the entire consumption of the unproductive classes. Supposethe proportion of the annual produce applied to the firstamounts to half; then one-half the productive labourersthe country are all that are employed in the operations onthe permanent wealth of the country depends. The other halfoccupied from year to year and from generation to generationproducing things which are consumed and disappear without; and whatever this half consume is as completely lost, asany permanent effect on the national resources, as if it wereunproductively. Suppose that this second half of thepopulation ceased to work, and that the government orparishes maintained them in idleness for a whole year: thehalf would suffice to produce, as they had done before,own necessaries and the necessaries of the second half, andkeep the stock of materials and implements undiminished : theclasses, indeed, would be either stared or obligedproduce their own subsistence, and the whole community wouldreduced during a year to bare necessaries; but the sources ofwould be unimpaired, and the next year there would notbe a smaller produce than if no such interval ofhad occurred; while if the case had been reversed, iffirst half of the labourers had suspended their accustomed, and the second half had continued theirs, theat the end of the twelvemonth would have been entirely.

It would be a great error to regret the large proportion ofannual produce, which in an opulent country goes to supplyconsumption. It would be to lament that thehas so much to spare from its necessities, for itsand for all higher uses. This portion of the produce isfund from which all the wants of the community, other thanof mere living, are provided for; the measure of its meansenjoyment, and of its power of accomplishing all purposes not. That so great a surplus should be available for such, and that it should be applied to them, can only be aof congratulation. The things to be regretted, and whichnot incapable of being remedied, are the prodigiouswith which this surplus is distributed, the littleof the objects to which the greater part of it is devoted,the large share which falls to the lot of persons who renderequivalent service in return.:. Some authorities look upon it as an essential element in theof wealth, that it should be capable not solely of beingbut of being transferred; and inasmuch as thequalities, and even the productive capacities, of abeing, cannot be detached from him and passed to some one, they deny to these the appellation of wealth, and to theexpended in acquiring them the name of productive labour.seems to me, however, that the skill of an artisan (for) being both a desirable possession, and one of a certain(not to say productive even of national wealth), thereno better reason for refusing

to it the title of wealthit is attached to a man, than to a coalpit or manufactorythey are attached to a place. Besides, if the skillcannot be parted with to a purchaser, the use of it may;it cannot be sold, it can be hired; and it may be, and is,outright in all countries whose laws permit that the manshould be sold along with it. Its defect ofdoes not result from a natural but from a legalmoral obstacle. The human being himself (as formerly) I do not class as wealth. He is the purpose for whichexists. But his acquired capacities, which exist only as, and have been called into existence by labour, fall, as it seems to me, within that designation.. Essays on some Unsettled Questions of Political Economy. Essay. On the words Productive and Unproductive.

The Principles of Political Economy

John Stuart Mill1,

Chapter 4

Capital

1. It has been seen in the preceding chapters that besidesprimary and universal requisites of production, labour andagents, there is another requisite without which nooperations, beyond the rude and scanty beginnings ofindustry, are possible: namely, a stock, previously, of the products of former labour. This accumulatedof the produce of labour is termed Capital. The function ofin production, it is of the utmost importance thoroughlyunderstand, since a number of the erroneous notions with whichsubject is infested, originate in an imperfect and confusedof this point.

Capital, by persons wholly unused to reflect on the subject,supposed to be synonymous with money. To expose this, would be to repeat what has been said in thechapter. Money is no more synonymous with capitalit is with wealth. Money cannot in itself perform any partthe office of capital, since it can afford no assistance to. To do this, it must be exchanged for other things;anything, which is susceptible of being exchanged for other, is capable of contributing to production in the same. What capital does for production, is to afford the, protection, tools and materials which the work requires,to feed and otherwise maintain the labourers during the. These are the services which present labour requirespast, and from the produce of past, labour. Whatever thingsdestined for this use — destined to supply productive labourthese various prerequisites — are Capital.

To familiarize ourselves with the conception, let us consideris done with the capital invested in any of the branches ofwhich compose the productive industry of a country. A, for example, has one part of his capital in theof buildings, fitted and destined for carrying on his branchmanufacture. Another part he has in the form of machinery. Aconsists, if he be a spinner, of raw cotton, flax, or wool;a weaver, of flaxen, woollen, silk, or cotton, thread; and the, according to the nature of the manufacture. Food andfor his operatives, it is not the custom of the presentthat he should directly provide; and few capitalists, exceptproducers of food or clothing, have any portion worthof their capital in that shape. Instead of this, eachhas money, which he pays to his workpeople, and sothem to supply themselves: he has also finished goods inwarehouses, by the sale of which he obtains more money, toin the same manner, as well as to replenish his stock of, to keep his buildings and machinery in repair, and tothem when worn out. His money and finished goods,, are not wholly capital, for he does not wholly devoteto these purposes: he employs a part of the one, and of theof the other, in supplying his personal consumption andof his family, or in hiring grooms and valets, orhunters and hounds, or in educating his children, orpaying taxes, or in charity. What then is his capital?that part of his possessions, whatever it be, which isconstitute his fund for carrying on fresh production. It is ofconsequence that a part, or even the whole of it, is in a formwhich it cannot directly supply the wants of labourers.

Suppose, for instance, that the capitalist is a hardware, and that his stock in trade, over and above his, consists at present wholly in iron goods. Iron goodsfeed labourers.

Nevertheless, by a mere change of theof these iron goods, he can cause labourers to be. Suppose that with a portion of the proceeds he intended toa pack of hounds, or an establishment of servants; andhe changes his intention, and employs it in his business,it in wages to additional workpeople. These workpeople areto buy and consume the food which would otherwise haveconsumed by the hounds or by the servants; and thus withoutemployer's having seen or touched one particle of the food,conduct has determined that so much more of the food existingthe country has been devoted to the use of productive, and so much less consumed in a manner wholly. Now vary the hypothesis, and suppose that what ispaid in wages would otherwise have been laid out not inservants or hounds, but in buying plate and jewels; andorder to render the effect perceptible, let us suppose thatchange takes place on a considerable scale, and that a largeis diverted from buying plate and jewels to employinglabourers, whom we shall suppose to have been, like the Irish peasantry, only half employed and half. The labourers, on receiving their increased wages, will notthem out in plate and jewels, but in food. There is not,, additional food in the country; nor any unproductiveor animals, as in the former case, whose food is setfor productive purposes. Food will therefore be imported if; if not possible, the labourers will remain for a seasontheir short allowance: but the consequences of this change indemand for commodities, occasioned by the change in theof capitalists from unproductive to productive, isnext year more food will be produced, and less plate and. So that again, without having had anything to do withfood of the labourers directly, the conversion by individualsa portion of their property, no matter of what sort, from andestination to a productive, has had the effect ofmore food to be appropriated to the consumption oflabourers. The distinction, then, between Capital andcapital, does not lie in the kind of commodities, but in theof the capitalist — in his will to employ them for onerather than another; and all property, however illin itself for the use of labourers, is a part of capital,soon as it, or the value to be received from it, is set apartproductive reinvestment. The sum of all the values soby their respective possessors, composes the capital ofcountry. Whether all those values are in a shape directlyto productive uses, makes no difference. Their shape,it may be, is a temporary accident: but once destinedproduction, they do not fail to find a way of transforminginto things capable of being applied to it.

2. As whatever of the produce of the country is devoted tois capital, so, conversely, the whole of the capitalthe country is devoted to production. This second proposition,, must be taken with some limitations and explanations. Amay be seeking for productive employment, and find none,to the inclinations of its possessor: it then is capital, but unemployed capital. Or the stock may consist of unsold, not susceptible of direct application to productive uses,not, at the moment, marketable: these, until sold, are in theof unemployed capital. Again, artificial or accidentalmay render it necessary to possess a larger stockadvance, that is, a larger capital before entering on, than is required by the nature of things. Supposethe government lays a tax on the production in one of itsstages, as for instance by taxing the material. Thehas to advance the tax, before commencing the, and is therefore under a necessity of having aaccumulated fund than is required for, or is actuallyin, the production which he carries on. He must have acapital, to maintain the same quantity of productive; or (what is equivalent) with a given capital he maintainslabour. This mode of levying taxes, therefore, limitsthe industry of the country: a

portion of the fundby its owners for production being diverted from its, and kept in a constant state of advance to the.

For another example: a farmer may enter on his farm at such aof the yea, that he may be required to pay one, two, or evenquarters' rent before obtaining any return from the. This, therefore, must he paid out of his capital. Now, when paid for the land itself, and not for improvementsin it by labour, is not a productive expenditure. It is notoutlay for the support of labour, or for the provision ofor materials the produce of labour. It is the pricefor the use of an appropriated natural agent. This naturalis indeed as indispensable (and even more so) as any: but the having to pay a price for it, is not. In theof the implement (a thing produced by labour) a price ofsort is the necessary condition of its existence: but theexists by nature. The payment for it, therefore, is not onethe expenses of production; and the necessity of making theout of capital, makes it requisite that there should be acapital, a greater antecedent accumulation of the producepast labour, than is naturally necessary, or than is neededland is occupied on a different system. This extra capital,intended by its owners for production, is in realityunproductively, and annually replaced, not from anyof its own, but from the produce of the labour supportedthe remainder of the farmer's capital.

Finally, that large portion of the productive capital of awhich is employed in paying the wages and salaries of, evidently is not, all of it, strictly andnecessary for production. As much of it as exceedsactual necessaries of life and health (an excess which in theof skilled labourers is usually considerable) is notin supporting labour, but in remunerating it, and thecould wait for this part of their remuneration untilproduction is completed; it needs not necessarily pre-existcapital: and if they unfortunately had to forego it, the same amount of production might take place. Inthat the whole remuneration of the labourers should beto them in daily or weekly payments, there must exist in, and be appropriated to productive use, a greater stock,capital, than would suffice to carry on the existing extent of: greater, by whatever amount of remuneration thereceive, beyond what the self-interest of a prudentmaster would assign to his slaves. In truth, it is onlyan abundant capital had already been accumulated, that theof paying in advance any remuneration of labour beyond asubsistence, could possibly have arisen: since whatever ispaid, is not really applied to production, but to theconsumption of productive labourers, indicating afor production sufficiently ample to admit of habituallya part of it to a mere convenience.

It will be observed that I have assumed, that the labourersalways subsisted from capital: and this is obviously the, though the capital needs not necessarily be furnished by acalled a capitalist. When the labourer maintains himselffunds of his own, as when a peasant-farmer or proprietor livesthe produce of his land, or an artisan works on his own, they are still supported by capital, that is, by fundsin advance. The peasant does not subsist this year onproduce of this year's harvest, but on that of the last. Theis not living on the proceeds of the work he has in hand,on those of work previously executed and disposed of. Each isby a small capital of his own, which he periodicallyfrom the produce of his labour. The large capitalist is,like manner, maintained from funds provided in advance. If heconducts his operations, as much of his personal orexpenditure as does not exceed a fair remuneration oflabour at the market price, must be considered a part of his, expended, like

any other capital, for production: andpersonal consumption, so far as it consists of necessaries,productive consumption.

3. At the risk of being tedious, I must add a few more, to bring out into a still clearer and strongerthe idea of Capital. As M. Say truly remarks, it is on theelements of our subject that illustration is most usefully, since the greatest errors which prevail in it may beto the want of a thorough mastery over the elementary. Nor is this surprising: a branch may be diseased and allrest healthy, but unsoundness at the root diffusesthrough the whole tree.

Let us therefore consider whether, and in what cases, theof those who live on the interest of what they possess,being personally engaged in production, can be regardedcapital. It is so called in common language, and, withto the individual, not improperly. All funds from whichpossessor derives an income, which income he can use withoutand dissipating the fund itself, are to him equivalent to. But to transfer hastily and inconsiderately to thepoint of view, propositions which are true of the, has been a source of innumerable errors in political. In the present instance, that which is virtually capitalthe individual, is or is not capital to the nation, accordingthe fund which by the supposition he has not dissipated, hashas not been dissipated by somebody else.

For example, let property of the value of ten thousand poundsto A, be lent to B, a farmer or manufacturer, andprofitably in B's occupation. It is as much capital asit belonged to B. A is really a farmer or manufacturer, not, but in respect of his property. Capital worth tenpounds is employed in production — in maintainingand providing tools and materials; which capitalto A, while B takes the trouble of employing it, andfor his remuneration the difference between the profitit yields and the interest he pays to A. This is thecase.

Suppose next that A's ten thousand pounds, instead of beingto B, are lent on mortgage to C, a landed proprietor, bythey are employed in improving the productive powers of his, by fencing, draining, road-making, or permanent manures.is productive employment. The ten thousand pounds are sunk,not dissipated. They yield a permanent return; the land nowan increase of produce, sufficient, in a few years, ifoutlay has been judicious, to replace the amount, and in timemultiply it manifold. Here, then, is a value of ten thousand, employed in increasing the produce of the country. Thisa capital, for which C, if he lets his land, receivesreturns in the nominal form of increased rent; and theentitles A to receive from these returns, in the shapeinterest, such annual sum as has been agreed on. We will nowthe circumstances, and suppose that C does not employ thein improving his land, but in paying off a former mortgagein making a provision for children. Whether the ten thousandthus employed are capital or not, will depend on what iswith the amount by the ultimate receiver. If the childrentheir fortunes in a productive employment, or theon being paid off lends the amount to anotherto improve his land, or to a manufacturer to extendbusiness, it is still capital, because productively employed.

Suppose, however, that C, the borrowing landlord, is a, who burdens his land not to increase his fortune butsquander it, expending the amount in equipages and. In a year or two it is dissipated, and without. A is as rich as before; he has no longer his ten thousand, but he has a lien on the land, which he could still sellthat amount. C, however, is 10,000 l.

poorer than formerly;nobody is richer. It may be said that those are richer whomade profit out of the money while it was being spent. Noif C lost it by gaming, or was cheated of it by his, that is a mere transfer, not a destruction, and thosehave gained the amount may employ it productively. But if Creceived the fair value for his expenditure in articles ofor luxury, which he has consumed on himself, or byof his servants or guests, these articles have ceased to, and nothing has been produced to replace them: while ifsame sum had been employed in farming or manufacturing, thewhich would have taken place would have been morebalanced at the end of the year by new products, created bylabour of those who would in that case have been the. By C's prodigality, that which would have beenwith a return, is consumed without return. C's tradesmenhave made a profit during the process; but if the capital hadexpended productively, an equivalent profit would have beenby builders, fencers, tool-makers, and the tradespeople whothe consumption of the labouring classes; while at theof the time (to say nothing of any increase), C wouldhad the ten thousand pounds or its value replaced to him,now he has not. There is, therefore, on the general result,difference to the disadvantage of the community, of at leastthousand pounds, being the amount of C's unproductive. To A, the difference is not material, since hisis secured to him, and while the security is good, and therate of interest the same, he can always sell the mortgageits original value. To A, therefore, the lien of ten thousandon C's estate, is virtually a capital of that amount; butit so in reference to the community? It is not. A had aof ten thousand pounds, but this has been extinguished —and destroyed by C's prodigality. A now receives his, not from the produce of his capital, but from some otherof income belonging to C, probably from the rent of his, that is, from payments made to him by farmers out of theof their capital. The national capital is diminished bythousand pounds, and the national income by all which thosethousand pounds, employed as capital, would have produced.loss does not fall on the owner of the destroyed capital,the destroyer has agreed to indemnify him for it. But hisis only a small portion of that sustained by the community,what was devoted to the use and consumption of thewas only the interest; the capital itself was, orhave been, employed in the perpetual maintenance of annumber of labourers, regularly reproducing what they: and of this maintenance they are deprived without.

Let us now vary the hypothesis still further, and supposethe money is borrowed, not by a landlord, but by the State.lends his capital to Government to carry on a war: he buys fromState what are called government securities; that is,on the government to pay a certain annual income. Ifgovernment employed the money in making a railroad, thisbe a productive employment, and A's property would still beas capital; but since it is employed in war, that is, in theof officers and soldiers who produce nothing, and ina quantity of gunpowder and bullets without return,government is in the situation of C, the spendthrift, and A's ten thousand pounds are so much nationalwhich once existed, but exists no longer: virtuallyinto the sea, as far as wealth or production is concerned;for other reasons the employment of it may have been. A's subsequent income is derived, not from theof his own capital, but from taxes drawn from the producethe remaining capital of the community; to whom his capital isyielding any return, to indemnity them for the payment; it isand gone, and what he now possesses is a claim on theto other people's capital and industry. This claim he can, and get back the equivalent of his capital, which he mayemploy productively. True; but he does not get backown capital, or anything which it

has produced; that, and allpossible returns, are extinguished: what he gets is theof some other person, which that person is willing tofor his lien on the taxes. Another capitalisthimself for A as a mortgagee of the public, and Ahimself for the other capitalist as the possessor offund employed in production, or available for it. By thisthe productive powers of the community are neithernor diminished. The breach in the capital of thewas made when the government spent A's money: whereby aof ten thousand pounds was withdrawn or withheld fromemployment, placed in the fund for unproductive, and destroyed without equivalent.

The Principles of Political Economy

John Stuart Mill1,

Chapter 5

Propositions Respecting Capital

1. If the preceding explanations have answered their purpose,have given not only a sufficiently complete possession ofidea of Capital according to its definition, but a sufficientwith it in the concrete, and amidst the obscuritywhich the complication of individual circumstances surrounds, to have prepared even the unpractised reader for certainpropositions or theorems respecting capital, the fullof which is already a considerable step out ofinto light.

The first of these propositions is, That industry is limitedcapital. This is so obvious as to be taken for granted in manyforms of speech; but to see a truth occasionally is one, to recognise it habitually, and admit no propositionswith it, is another. The axiom was until latelyuniversally disregarded by legislators and political; and doctrines irreconcileable with it are still veryprofessed and inculcated.

The following are common expressions, implying its truth. Theof directing industry to a particular employment is describedthe phrase "applying capital" to the employment. To employon the land is to apply capital to the land. To employin a manufacture is to invest capital in the manufacture.implies that industry cannot be employed to any greaterthan there is capital to invest. The proposition, indeed,be assented to as soon as it is distinctly apprehended. The"applying capital" is of course metaphorical: what isapplied is labour; capital being an indispensable. Again, we often speak of the "productive powers of." This expression is not literally correct. The onlypowers are those of labour and natural agents; or ifportion of capital can by a stretch of language be said toa productive power of its own, it is only tools and, which, like wind or water, may be said to co-operatelabour. The food of labourers and the materials ofhave no productive power; but labour cannot exert itspower unless provided with them. There can be no morethan is supplied with materials to work up and food to. Self-evident as the thing is, it is often forgotten that theof a country are maintained and have their wants supplied,by the produce of present labour, but of past. They consumehas been produced, not what is about to be produced. Now, ofhas been produced, a part only is allotted to the support oflabour; and there will not and cannot be more of thatthan the portion so allotted (which is the capital of the) can feed, and provide with the materials and instrumentsproduction.

Yet, in disregard of a fact so evident, it long continued tobelieved that laws and governments, without creating capital,create industry. Not by making the people more laborious,increasing the efficiency of their labour; these are objectswhich the government can, in some degree, indirectly. But without any increase in the skill or energy oflabourers. and without causing any persons to labour who hadbeen maintained in idleness, it was still thought thatgovernment, without providing additional funds, could createemployment. A government would, by prohibitory laws,a stop to the importation of some commodity; and when by thishad caused the commodity to be produced at home, it wouldtself upon having enriched the country with a new branchindustry, would parade in statistical tables

the amount ofyielded and labour employed in the production, and takefor the whole of this as a gain to the country, obtainedthe prohibitory law. although this sort of politicalhas fallen a little into discredit in England, itflourishes in the nations of Continental Europe. Hadbeen aware that industry is limited by capital, theyhave seen that, the aggregate capital of the country notbeen increased, any portion of it which they by their lawscaused to be embarked in the newly-acquired branch ofmust have been withdrawn or withheld from some other; init gave, or would have given, employment to probably aboutsame quantity of labour which it employs in its new.(1)*

2. Because industry is limited by capital, we are not howeverinfer that it always reaches that limit. Capital may beunemployed, as in the case of unsold goods, or fundshave not yet found an investment: during this interval itnot set in motion any industry. Or there may not be as manyobtainable, as the capital would maintain and employ.has been known to occur in new colonies, where capital hasperished uselessly for want of labour: the Swan River(now called Western Australia), in the first yearsits foundation, was an instance. There are many personsfrom existing capital, who produce nothing, or whoproduce much more than they do. If the labourers wereto lower wages, or induced to work more hours for thewages, or if their families, who are already maintained from, were employed to a greater extent than they now are into the produce, a given capital would afford employment toindustry. The unproductive consumption of productive, the whole of which is now supplied by capital, might, or be postponed until the produce came in; and additionallabourers might be maintained with the amount. By suchsociety might obtain from its existing resources a greaterof produce: and to such means it has been driven, whensudden destruction of some large portion of its capitalthe employment of the reminder with the greatesteffect, a matter of paramount consideration for the.

When industry has not come up to the limit imposed by, governments may, in various ways, for example byadditional labourers, bring it nearer to that limit: asthe importation of Coolies and free Negroes into the West. There is another way in which governments can createindustry. They can create capital. They may lay on, and employ the amount productively. They may do what isequivalent; they may lay taxes on income or expenditure,apply the proceeds towards paying off the public debts. The, when paid off, would still desire to draw an incomehis property, most of which therefore would find its wayproductive employment, while a great part of it would havedrawn from the fund for unproductive expenditure, sincedo not wholly pay their taxes from what they would have, but partly, if not chiefly, from what they would have. It may be added, that any increase in the productive powercapital (or, more properly speaking, of labour) by improvementthe arts of life, or otherwise, tends to increase thefor labour. since, when there is a greater produce, it is always probable that some portion of thewill be saved and converted into capital; especiallythe increased returns to productive industry hold out antemptation to the conversion of funds from andestination to a productive.

3. While, on the one hand, industry is limited by capital, sothe other, every increase of capital gives, or is capable of, additional employment to industry., and this withoutlimit. I do not mean to deny that the capital, or partit, may be so employed as not to support labourers, beingin machinery, buildings, improvement of land, and the like.any

large increase of capital a considerable portion willbe thus employed, and will only co-operate with, not maintain them. What I do intend to assert is, thatportion which is destined to their maintenance, may(supposing no alteration in anything else) be indefinitely, without creating an impossibility of finding them: in other words, that if there are human beingsof work, and food to feed them, they may always bein producing something. This proposition requires to bedwelt upon, being one of those which it is exceedinglyto assent to when presented in general terms, but somewhatto keep fast hold of, in the crowd and confusion of thefacts of society. It is also very much opposed to common. There is not an opinion more general among mankindthis, that the unproductive expenditure of the rich isto the employment of the poor. Before Adam Smith, thehad hardly been questioned; and even since his time,of the highest name and of great merit* have contended,if consumers were to save and convert into capital more thanlimited portion of their income, and were not to devote toconsumption an amount of means bearing a certainto the capital of the country, the extra accumulation wouldmerely so much waste, since there would be no market for thewhich the capital so created would produce. Ithis to be one of the many errors arising in political, from the practice of not beginning with the examinationsimple cases, but rushing at once into the complexity ofphenomena.

Every one can see that if a benevolent government possessedthe food, and all the implements and materials, of the, it could exact productive labour from all capable of, to whom it allowed a share in the food, and could be in noof wanting a field for the employment of this productive, since as long as there was a single want unsaturated(which material objects could supply), of any one individual, theof the community could be turned to the production ofcapable of satisfying that want. Now, the individualof capital, when they add to it by fresh, are doing precisely the same thing which weto be done by a benevolent government. As it is allowableput any case by way of hypothesis, let us imagine the mostcase conceivable. Suppose that every capitalist came toof opinion that not being more meritorious than aconducted labourer, he ought not to fare better; andlaid by, from conscientious motives, the surplus ofprofits; or suppose this abstinence not spontaneous, butby law or opinion upon all capitalists, and uponlikewise. Unproductive expenditure is now reduced tolowest limit: and it is asked, how is the increased capitalfind employment? Who is to buy the goods which it will? There are no longer customers even for those which werebefore. The goods, therefore, (it is said) will remain; they will perish in the warehouses; until capital isdown to what it was originally, or rather to as much, as the demand of the consumers has lessened. But this isonly one-half of the matter. In the case supposed, thereno longer be any demand for luxuries, on the part ofand landowners. But when these classes turn theirinto capital, they do not thereby annihilate their powerconsumption; they do but transfer it from themselves to theto whom they give employment. Now, there are twosuppositions in regard to the labourers; either there, or there is not, an increase of their numbers, proportionalthe increase of capital. If there is, the case offers no. The production of necessaries for the new population,the place of the production of luxuries for a portion ofold, and supplies exactly the amount of employment which haslost. But suppose that there is no increase of population.whole of what was previously expended in luxuries, byand landlords, is distributed among the existing, in the form of additional wages. We will assume thembe already sufficiently supplied with

necessaries. What? That the labourers become consumers of luxuries; and thepreviously employed in the production of luxuries, isable to employ itself in the same manner: the difference, that the luxuries are shared among the community, instead of being confined to a few. The increasedand increased production, might, rigorously, continue, until every labourer had every indulgence of, consistent with continuing to work; supposing that theof their labour were physically sufficient to produce allamount of indulgences for their whole number. Thus the limitwealth is never deficiency of consumers, but of producers andpower. Every addition to capital gives to labouradditional employment, or additional remuneration;either the country, or the labouring class. If it findshands to set to work, it increases the aggregate: if only the same hands, it gives them a larger share of; and perhaps even in this case, by stimulating them to greater, augments the produce itself.

4. A second fundamental theorem respecting Capital, relatesthe source from which it is derived. It is the result of. The evidence of this lies abundantly in what has beensaid on the subject. But the proposition needs someillustration.

If all persons were to expend in personal indulgences allthey produce, and all the income they receive from what isby others, capital could not increase. All capital, withtrifling exception, was originally the result of saving. I say,a trifling exception; because a person who labours on hisaccount, may spend on his own account all he produces,becoming destitute; and the provision of necessaries onhe subsists until he has reaped his harvest, or sold his, though a real capital, cannot be said to have been, since it is all used for the supply of his own wants, andas speedily as if it had been consumed in idleness. Weimagine a number of individuals or families settled on asseparate pieces of land, each living on what their ownproduces, and consuming the whole produce. But even thesesave (that is, spare from their personal consumption) asas is necessary for seed. Some saving, therefore, there mustbeen, even in this simplest of all states of economical; people must have produced more than they used, or usedthan they produced. Still more must they do so before theyemploy other labourers, or increase their production beyondcan be accomplished by the work of their own hands. All thatone employs in supporting and carrying on any other labourhis own, must have been originally brought together by; somebody must have produced it and forborne to consume. We may say, therefore, without material inaccuracy, that all, and especially all addition to capital, are the resultsaving.

In a rude and violent state of society, it continuallythat the person who has capital is not the very personhas saved it, but some one who, being stronger, or belonginga more powerful community, has possessed himself of it by. And even in a state of things in which property was, the increase of capital has usually been, for a long, mainly derived from privations which, though essentiallysame with saving, are not generally called by that name,not voluntary. The actual producers have been slaves,to produce as much as force could extort from them, andconsume as little as the self-interest or the usually veryhumanity of their taskmasters would permit. This kind ofsaving, however, would not have caused any increase of, unless a part of the amount had been saved over again,, by the master. If all that he made his slavesand forbear to consume, had been consumed by him onindulgences, he would not have increased his capital,been enabled to maintain an increasing number of slaves. Toany slaves at all, implied a previous saving; a stock,least of

food, provided in advance. This saving may not,, have been made by any self-imposed privation of the; but more probably by that of the slaves themselves while; the rapine or war, which deprived them of their personal, having transferred also their accumulations to the.

There are other cases in which the term saving, with theusually belonging to it, does not exactly fit theby which capital is increased. If it were said, for, that the only way to accelerate the increase of capitalby increase of saving, the idea would probably be suggested ofabstinence, and increased privation. But it is obviouswhatever increases the productive power of labour, createsadditional fund to make savings from, and enables capital toenlarged not only without additional privation, butwith an increase of personal consumption., there is here an increase of saving, in thesense. Though there is more consumed, there is alsospared. There is a greater excess of production over. It is consistent with correctness to call this asaving. Though the term is not unobjectionable, there isother which is not liable to as great objections. To consumethan is produced, is saving; and that is the process bycapital is increased; not necessarily by consuming less,. We must not allow ourselves to be so much the slaveswords, as to be unable to use the word saving in this sense,being in danger of forgetting that to increase capitalis another way besides consuming less, namely, to produce.

5. A third fundamental theorem respecting Capital, closelywith the one last discussed, is, that although saved,the result of saving, it is nevertheless consumed. The worddoes not imply that what is saved is not consumed, nornecessarily that its consumption is deferred; but only that,consumed immediately, it is not consumed by the person whoit. If merely laid by for future use, it is said to be; and while hoarded, is not consumed at all. But ifas capital, it is all consumed; though not by the. Part is exchanged for tools or machinery, which areout by use; part for seed or materials, which are destroyedsuch by being sown or wrought up, and destroyed altogether byconsumption of the ultimate product. The remainder is paid into productive labourers, who consume it for their daily; or if they in their turn save any part, this also is not,speaking, hoarded, but (through savings banks, benefit, or some other channel) re-employed as capital, and.

The principle now stated is a strong example of the necessityattention to the most elementary truths of our subject: for itone of the most elementary of them all, and yet no one who hasbestowed some thought on the matter is habitually aware of, and most are not even willing to admit it when first stated.the vulgar, it is not at all apparent that what is saved is. To them, every one who saves, appears in the light of awho hoards : they may think such conduct permissible, orlaudable, when it is to provide for a family, and the like ;they have no conception of it as doing good to other people:is to them another word for keeping a thing to oneself;spending appears to them to be distributing it among. The person who expends his fortune in unproductive, is looked upon as diffusing benefits all around; andan object of so much favour, that some portion of the sameattaches even to him who spends what does not belonghim; who not only destroys his own capital, if he ever had, but under pretence of borrowing, and on promise of, possesses himself of capital belonging to others, andthat likewise.

This popular error comes from attending to a small portionof the consequences that flow from the saving or the; all the effects of either which are out of sight, beingof

mind. The eye follows what is saved, into an imaginarybox, and there loses sight of it; what is spent, itinto the hands of tradespeople and dependents; butreaching the ultimate destination in either case. Saving(for productive investment), and spending, coincide very closelythe first stage of their operations. The effects of both beginconsumption; with the destruction of a certain portion of; only the things consumed, and the persons consuming, are. There is, in the one case, a wearing out of tools, aof material, and a quantity of food and clothingto labourers, which they destroy by use: in the other, there is a consumption, that is to say, a destruction, of, equipages, and furniture. Thus far, the consequence to thewealth has been much the same; an equivalent quantity ofhas been destroyed in both cases. But in the spending, thisstage is also the final stage; that particular amount ofproduce of labour has disappeared, and there is nothing left;, on the contrary, the saving person, during the whole timethe destruction was going on, has had labourers at workit; who are ultimately found to have replaced, with an, the equivalent of what has been consumed. And as thisadmits of being repeated indefinitely without any freshof saving, a saving once made becomes a fund to maintain anumber of labourers in perpetuity, reproducingtheir own maintenance with a profit.

It is the intervention of money which obscures, to anapprehension, the true character of these phenomena.all expenditure being caRed on by means of money, thecomes to be looked upon as the main feature in the; and since that does not perish, but only changes, people overlook the destruction which takes place in theof unproductive expenditure. The money being merely, they think the wealth also has only been handed overthe spendthrift to other people. But this is simplymoney with wealth. The wealth which has beenwas not the money, but the wines, equipages, andwhich the money purchased; and these having beenwithout return, society collectively is poorer by the. It may be said, perhaps, that wines, equipages, and, are not subsistence, tools, and materials, and couldin any case have been applied to the support of labour; thatare adapted for no other than unproductive consumption, andthe detriment to the wealth of the community was when theyproduced, not when they were consumed. I am willing to allow, as far as is necessary for the argument, and the remarkbe very pertinent if these expensive luxuries were drawnan existing stock, never to be replenished. But since, oncontrary, they continue to be produced as long as there arefor them, and are produced in increased quantity toan increased demand; the choice made by a consumer to expendthousand a year in luxuries, keeps a corresponding number ofemployed from year to year in producing things whichbe of no use to production; their services being lost so farregards the increase of the national wealth, and the tools,, and food which they annually consume being so muchfrom the general stock of the community applicable topurposes. In proportion as any class is improvident or, the industry of the country takes the direction ofluxuries for their use; while not only the employmentproductive labourers is diminished, but the subsistence andwhich are the means of such employment do actuallyin smaller quantity.

Saving, in short, enriches, and spending impoverishes, thealong with the individual; which is but saying in other, that society at large is richer by what it expends inand aiding productive labour, but poorer by what itin its enjoyments.(2*)

6. To return to our fundamental theorem. Everything which isis consumed both what is saved and what is said to be; and the former quite as rapidly as the latter. All

theforms of language tend to disguise this. When peopleof the ancient wealth of a count, of riches inherited from, and similar expressions, the idea suggested is, thatriches so transmitted were produced long ago, at the timethey are said to have been first acquired, and that noof the capital of the country was produced this year,as much as may have been this year added to the total. The fact is far otherwise. The greater part, in value, ofwealth now existing in England has been produced by humanwithin the last twelve months. A very small proportionof that large aggregate was in existence ten years ago; —the present productive capital of the country scarcely any, except farm-houses and manufactories, and a few ships and; and even these would not in most cases have survived so, if fresh labour had not been employed within that period inthem into repair. The land subsists, and the land isthe only thing that subsists. Everything which is produced, and most things very quickly. Most kinds of capital arefitted by their nature to be long preserved. There are a few,but a few productions, capable of a very prolonged existence.Abbey has lasted many centuries, with occasional; some Grecian sculptures have existed above two thousand; the Pyramids perhaps double or treble that time. But theseobjects devoted to unproductive use. If we except bridgesaqueducts (to which may in some countries be added tanks and), there are few instances of any edifice applied topurposes which has been of great duration; suchdo not hold out against wear and tear, nor is it goodto construct them of the solidity necessary for. Capital is kept in existence from age to age not by, but by perpetual reproduction: every part of it isand destroyed, generally very soon after it is produced, butwho consume it are employed meanwhile in producing more.growth of capital is similar to the growth of population.individual who is born, dies, but in each year the numberexceeds the number who die: the population, therefore,increases, though not one person of those composing it wasuntil a very recent date.

7. This perpetual consumption and reproduction of capitalthe explanation of what has so often excited wonder, therapidity with which countries recover from a state of; the disappearance, in a short time, of all traces ofmischiefs done by earthquakes, floods, hurricanes, and theof war. An enemy lays waste a country by fire and sword,destroys or carries away nearly all the moveable wealthin it: all the inhabitants are ruined, and yet in a fewafter, everything is much as it was before. This visnaturae has been a subject of sterile astonishment, orbeen cited to exemplify the wonderful strength of theof saving, which can repair such enormous losses in soan interval. There is nothing at all wonderful in the. What the enemy have destroyed, would have been destroyeda little time by the inhabitants themselves: the wealth whichso rapidly reproduce, would have needed to be reproduced andhave been reproduced in any case, and probably in as shorttime. Nothing is changed, except that during the reproductionhave not now the advantage of consuming what had beenpreviously. The possibility of a rapid repair of their, mainly depends on whether the country has been. If its effective population have not been extirpatedthe time, and are not starved afterwards; then, with the sameand knowledge which they had before, with their land andpermanent improvements undestroyed, and the more durableprobably unimpaired, or only partially injured, theynearly all the requisites for their former amount of. If there is as much of food left to them, or ofto buy food, as enables them by any amount of privationremain alive and in working condition, they will in a shorthave raised as great a produce, and acquired collectively aswealth and as great a capital, as before; by the mereof that ordinary amount of exertion which they areto employ in their occupations. Nor does

this evincestrength in the principle of saving, in the popular sense ofterm, since what takes place is not intentional abstinence,involuntary privation.

Yet so fatal is the habit of thinking though the medium ofone set of technical phrases, and so little reason havemen to value themselves on being exempt from the verymental infirmities which beset the vulgar, that this simplewas never given (so far as I am aware) by anyeconomist before Dr. Chalmers; a writer many of whoseI think erroneous, but who has always the merit ofphenomena at first hand, and expressing them in aof his own, which often uncovers aspects of the truththe received phraseologies only tend to hide.

8. The same author carries out this train of thought to someconclusions on another closely connected subject, thatgovernment loans for war purposes or other unproductive. These loans, being drawn from capital (in lieu of, which would generally have been paid from income, and madein part or altogether by increased economy) must, according toprinciples we have laid down, tend to impoverish the country:the years in which expenditure of this sort has been on thescale, have often been years of great apparent.. the wealth and resources of the country, instead of, have given every sign of rapid increase during the, and of greatly expanded dimensions after its close. Thisconfessedly the case with Great Britain during the last longwar; and it would take some space to enumerate allunfounded theories in political economy, to which that factrise, and to which it secured temporary credence; almost allto exalt unproductive expenditure, at the expense of. Without entering into all the causes which operated,which commonly do operate, to prevent these extraordinaryon the productive resources of a country from being sofelt as it might seem reasonable to expect, we will supposemost unfavourable case possible: that the whole amountand destroyed by the government, was abstracted by thefrom a productive employment in which it had actually been. The capital, therefore, of the country, is this yearby so much. But unless the amount abstracted isenormous, there is no reason in the nature of the casenext year the national capital should not be as great as. The loan cannot have been taken from that portion of theof the country which consists of tools, machinery, and. It must have been wholly drawn from the portionin paying labourers: and the labourers will suffer. But if none of them are stared; if their wages cansuch an amount of reduction, or if charity interposesthem and absolute destitution, there is no reason thatlabour should produce less in the next year than in thebefore. If they produce as much as usual, having been paidby so many millions sterling, these millions are gained byemployers. The breach made in the capital of the country isinstantly repaired, but repaired by the privations and oftenreal misery of the labouring class. Here is ample reason whyperiods, even in the most unfavourable circumstances, maybe times of great gain to those whose prosperity usually, in the estimation of society, for national.(3*)

This leads to the vexed question to which Dr. Chalmers hasparticularly adverted; whether the funds required by afor extraordinary unproductive expenditure, are bestby loans, the interest only being provided by taxes, Ortaxes should be at once laid on to the whole amount;is called in the financial vocabulary, raising the whole ofsupplies within the year. Dr. Chalmers is strongly for themethod. He says, the common notion is that in calling forwhole amount in one year, you require what is either, or very inconvenient; that

the people cannot, withouthardship, pay the whole at once out of their yearly income;that it is much better to require of them a small paymentyear in the shape of interest, than so great a sacrificefor all. To which his answer is, that the sacrifice is madein either case. Whatever is spent, cannot but be drawnyearly income. The whole and every part of the wealthin the country, forms, or helps to form, the yearlyof somebody. The privation which it is supposed mustfrom taking the amount in the shape of taxes is notby taking it in a loan. The suffering is not averted, butthrown upon the labouring classes, the least able, and whoought, to bear it: while all the inconveniences, physical,, and political, produced by maintaining taxes for thepayment of the interest, are incurred in pure loss.capital is withdrawn from production, or from the fundfor production, to be lent to the State, and expended, that whole sum is withheld from the labouring: the loan, therefore, is in truth paid off the same year;whole of the sacrifice necessary for paying it off ismade: only it is paid to the wrong persons, anddoes not extinguish the claim; and paid by the veryof taxes, a tax exclusively on the labouring class. Andhaving, in this most painful and unjust way, gone throughwhole effort necessary for extinguishing the debt, theremains charged with it, and with the payment of itsin perpetuity.

These views appear to me strictly just, in so far as theabsorbed in loans would otherwise have been employed inindustry within the country. The practical state ofcase, however, seldom exactly corresponds with this. The loans of the less wealthy countries are madewith foreign capital, which would not, perhaps, have beenin to be invested on any less security than that of the: while those of rich and prosperous countries aremade, not with funds withdrawn from productive, but with the new accumulations constantly making from, and often with a part of them which, if not so taken,have migrated to colonies, or sought other investments. In these cases (which will be more particularly examined*), the sum wanted may be obtained by loan withoutto the labourers, or derangement of the national, and even perhaps with advantage to both, in comparisonraising the amount by taxation, since taxes, especially when, are almost always partly paid at the expense of what wouldhave been saved and added to capital. Besides, in awhich makes so great yearly additions to its wealth thatpart can be taken and expended unproductively withoutcapital, or even preventing a considerable increase,is evident that even if the whole of what is so taken wouldbecome capital, and obtained employment in the country, theon the labouring classes is far less prejudicial, and theagainst the loan system much less strong, than in the casesupposed. This brief anticipation of a discussion whichfind its proper place elsewhere, appeared necessary tofalse inferences from the premises previously laid down.

9. We now pass to a fourth fundamental theorem respecting, which is, perhaps, oftener overlooked or misconceivedeven any of the foregoing. What supports and employslabour, is the capital expended in setting it to work,not the demand of purchasers for the produce of the labourcompleted. Demand for commodities is not demand for labour.demand for commodities determines in what particular branchproduction the labour and capital shall be employed; itthe direction of the labour; but not the more or lessthe labour itself, or of the maintenance or payment of the. These depend on the amount of the capital, or other fundsdevoted to the sustenance and remuneration of labour.

Suppose, for instance, that there is a demand for velvet; aready to be laid out in buying velvet, but no capital tothe manufacture. It is of no consequence how great themay

be; unless capital is attracted into the occupation,will be no velvet made, and consequently none bought;, indeed, the desire of the intending purchaser for it isstrong, that he employs part of the price he would have paidit, in making advances to work-people, that they may employin making velvet; that is, unless he converts part ofincome into capital, and invests that capital in the. Let us now reverse the hypothesis, and suppose thatis plenty of capital ready for making velvet, but no. Velvet will not be made; but there is no particularon the part of capital for making velvet.and their labourers do not produce for the pleasuretheir customers, but for the supply of their own wants, andstill the capital and the labour which are the essentialsproduction, they can either produce something else which is in, or if there be no other demand, they themselves have one,can produce the things which they want for their own. So that the employment afforded to labour does notон the purchasers, but on the capital. I am, of course,taking into consideration the effects of a sudden change. Ifdemand ceases unexpectedly, after the commodity to supply italready produced, this introduces a different element into the: the capital has actually been consumed in producingwhich nobody wants or uses, and it has therefore, and the employment which it gave to labour is at an, not because there is no longer a demand, but because thereno longer a capital. This case therefore does not test the. The proper test is, to suppose that the change isand foreseen, and is attended with no waste of capital,manufacture being discontinued by merely not replacing theas it wears out, and not reinvesting the money as itin from the sale of the produce. The capital is thus readya new employment, in which it will maintain as much labour as. The manufacturer and his work-people lose the benefit ofskill and knowledge which they had acquired in the particular, and which can only be partially of use to them in any; and that is the amount of loss to the community by the. But the labourers can still work, and the capital whichemployed them will, either in the same hands, or bylent to others, employ either those labourers or annumber in some other occupation.

This theorem, that to purchase produce is not to employs; that the demand for labour is constituted by the wagesprecede the production, and not by the demand which mayfor the commodities resulting from the production; is awhich greatly needs all the illustration it can. It is, to common apprehension, a paradox; and even amongeconomists of reputation, I can hardly point to any,Mr. Ricardo and M. Say, who have kept it constantly andin view. Almost all others occasionally expressas if a person who buys commodities, the produce of, was an employer of labour, and created a demand for it as, and in the same sense, as if he bought the labour itself, by the payment of wages. It is no wonder that politicaladvances slowly, when such a question as this stillopen at its very threshold. I apprehend, that if byfor labour be meant the demand by which wages are raised,the number of labourers in employment increased, demand fordoes not constitute demand for labour. I conceivea person who buys commodities and consumes them himself,no good to the labouring classes; and that it is only byhe abstains from consuming, and expends in direct paymentslabourers in exchange for labour, that he benefits theclasses, or adds anything to the amount of their.

For the better illustration of the principle, let us put thecase. A consumer may expend his income either in buying, or commodities. He may employ part of it in hiringbricklayers to build a house, or excavators to diglakes, or labourers to make

plantations and lay outgrounds; or, instead of this, he may expend the samein buying velvet and lace. The question is, whether thebetween these two modes of expending his incomethe interest of the labouring classes. It is plain thatthe first of the two cases he employs labourers, who will beof employment, or at least out of that employment, in thecase. But those from whom I differ say that this is ofconsequence, because in buying velvet and lace he equallylabourers, namely, those who make the velvet and lace. I, however, that in this last case he does not employ; but merely decides in what kind of work some othershall employ them. The consumer does not with his ownpay to the weavers and lacemakers their day's wages. Hethe finished commodity, which has been produced by labourcapital, the labour not being paid nor the capital furnishedhim, but by the manufacturer. Suppose that he had been in theof expending this portion of his income in hiringbricklayers, who laid out the amount of their wages inand clothing, which were also produced by labour and. He, however, determines to prefer velvet, for which hecreates an extra demand. This demand cannot be satisfiedan extra supply, nor can the supply be produced withoutextra capital: where, then, is the capital to come from? Therenothing in the consumer's change of purpose which makes theof the country greater than it otherwise was. It appears,, that the increased demand for velvet could not for thebe supplied, were it not that the very circumstance whichrise to it has set at liberty a capital of the exact amount. The very sum which the consumer now employs in buying, formerly passed into the hands of journeymen bricklayers,expended it in food and necessaries, which they now either go, or squeeze by their competition, from the shares oflabourers. The labour and capital, therefore, whichproduced necessaries for the use of these bricklayers,deprived of their market, and must look out for other; and they find it in making velvet for the new demand.do not mean that the very same labour and capital whichthe necessaries turn themselves to producing the velvet;, in some one or other of a hundred modes, they take the placethat which does. There was capital in existence to do one ofthings to make the velvet, or to produce necessaries for thebricklayers; but not to do both. It was at the optionthe consumer which of the two should happen; and if he choosesvelvet, they go without the necessaries.

For further illustration, let us suppose the same case. The consumer has been accustomed to buy velvet, butto discontinue that expense, and to employ the samesum in hiring bricklayers. If the common opinion be, this change in the mode of his expenditure gives noemployment to labour, but only transfers employmentvelvet-makers to bricklayers. On closer inspection, however,will be seen that there is an increase of the total sumto the remuneration of labour. The velvet manufacturer,him aware of the diminished demand for his commodity,the production, and sets at liberty a correspondingof the capital employed in the manufacture. This capital,withdrawn from the maintenance of velvet-makers, is not thefund with that which the customer employs in maintaining; it is a second fund. There are, therefore, two fundsbe employed in the maintenance and remuneration of labour,before there was only one. There is not a transfer offrom velvet-makers to bricklayers; there is a newcreated for bricklayers, and a transfer of employmentvelvet-makers to some other labourers, most probably thoseproduce the food and other things which the bricklayers.

In answer to this it is said, that though money laid out invelvet is not capital, it replaces a capital; that thoughdoes not create a new demand for labour, it is the necessaryof enabling the existing demand to be kept up. The funds(it may be said) of the manufacturer, while locked up in velvet,be directly applied to the maintenance of labour; they dobegin to constitute a demand for labour until the velvet is, and the capital which made it replaced from the outlay ofpurchaser; and thus, it may be said, the velvet-maker and thebuyer have not two capitals, but only one capital between, which by the act of purchase the buyer transfers to the, and if instead of buying velvet he buys labour, hetransfers this capital elsewhere, extinguishing as muchfor labour in one quarter as he creates in another.

The premises of this argument are not denied. To set free awhich would otherwise be locked up in a form useless forsupport of labour, is, no doubt, the same thing to theof labourers as the creation of a new capital. It istrue that if I expend 1000l. in buying velvet, I enablemanufacturer to employ 1000l. in the maintenance of labour,could not have been so employed while the velvet remained: and if it would have remained unsold for ever unless Iit, then by changing my purpose, and hiring bricklayers, I undoubtedly create no new demand for labour: for whileemploy 1 000l. in hiring labour on the one hand, I annihilateever 1000l. of the velvet-maker's capital on the other. Butis confounding the effects arising from the mere suddennessa change with the effects of the change itself. If when theceased to purchase, the capital employed in making velvethis use necessarily perished, then his expending the samein hiring bricklayers would be no creation, but merely a, of employment. The increased employment which I contendgiven to labour, would not be given unless the capital of themaker could be liberated, and would not be given until itliberated. But every one knows that the capital invested inemployment can be withdrawn from it, if sufficient time be. If the velvet-maker had previous notice, by notthe usual order, he will have produced 1000l. less, and an equivalent portion of his capital will have beenset free. If he had no previous notice, and the articleremains on his hands, the increase of his stock willhim next year to suspend or diminish his production untilsurplus is caRed off. When this process is complete, thewill find himself as rich as before, withpower of employing labour in general, though aof his capital will now be employed in maintaining somekind of it. Until this adjustment has taken place, thefor labour will be merely changed, not increased: but asas it has taken place, the demand for labour is increased.there was formerly only one capital employed in maintainingto make 1000l. worth of velvet, there is now that sameemployed in making something else, and 1000l. distributedbricklayers besides. There are now two capitals employed intwo sets of labourers; while before, one of those, that of the customer, only served as a wheel in theby which the other capital, that of the manufacturer,on its employment of labour from year to year.

The proposition for which I am contending is in realityto the following, which to some minds will appear a, though to others it is a paradox: that a person does goodlabourers, not by what he consumes on himself, but solely byhe does not so consume. If instead of laying out 100l. inor silk, I expend it in wages, the demand for commodities isequal in both cases: in the one, it is a demand forl. worth of wine or silk, in the other, for the same value of, beer, labourers' clothing, fuel, and indulgences: but theof the community have in the latter case the value ofl. more of the produce of the community

distributed among. I have consumed that much less, and made over my consumingto them. If it were not so, my having consumed less wouldleave more to be consumed by others; which is a manifest. When less is not produced, what one personto consume is necessarily added to the share of those tohe transfers his power of purchase. In the case supposed Inot necessarily consume less ultimately, since the labourersI pay may build a house for me, or make something else forfuture consumption. But I have at all events postponed my, and have turned over part of my share of the presentof the community to the labourers. If after an interval Iindemnified, it is not from the existing produce, but from aaddition made to it. I have therefore left more of theproduce to be consumed by others; and have put into theof labourers the power to consume it.

There cannot be a better reductio ad absurdum of the oppositethan that afforded by the Poor Law. If it be equally forbenefit of the labouring classes whether I consume my meansthe form of things purchased for my own use, or set aside ain the shape of wages or alms for their direct, on what ground can the policy be justified of takingmoney from me to support paupers? since my unproductivewould have equally benefited them, while I shouldenjoyed it too. If society can both eat its cake and have, why should it not be allowed the double indulgence? Butsense tells every one in his own case (though he does notit on the larger scale), that the poor rate which he pays issubtracted from his own consumption, and that no shiftingpayment backwards and forwards will enable two persons to eatsame food. If he had not been required to pay the rate, andconsequently laid out the amount on himself, the poor wouldhad as much less for their share of the total produce of the, as he himself would have consumed more.(4*)

It appears, then, that a demand delayed until the work is, and furnishing no advances, but only reimbursingmade by others, contributes nothing to the demand for; and that what is so expended, is, in all its effects, soas regards the employment of the labouring class, a mere; it does not and cannot create any employment except atexpense of other employment which existed before.

But though a demand for velvet does nothing more in regard toemployment for labour and capital, than to determine so muchthe employment which already existed, into that particularinstead of any other; still, to the producers alreadyin the velvet manufacture, and not intending to quit it,is of the utmost importance. To them, a falling off in theis a real loss, and one which, even if none of their goodsperish unsold, may mount to any height, up to that whichmake them choose, as the smaller evil, to retire from the. On the contrary, an increased demand enables them totheir transactions — to make a profit on a larger, if they have it, or can borrow it; and, turning overcapital more rapidly, they will employ their labourers more, or employ a greater number than before. So that andemand for a commodity does really, in the particular, often cause a greater employment to be given toby the same capital. The mistake lies in not perceivingin the cases supposed, this advantage is given to labour andin one department, only by being withdrawn from another;that when the change has produced its natural effect ofinto the employment additional capital proportional toincreased demand, the advantage itself ceases.

The grounds of a proposition, when well understood, usuallya tolerable indication of the limitations of it. The general, now stated, is that demand for commodities Determinesthe direction of labour, and the kind of wealth produced,not the quantity or

efficiency of the labour, or theof wealth. But to this there are two exceptions. First,labour is supported, but not fully occupied, a new demandsomething which it can produce, may stimulate the labour thusto increased exertions, of which the result may be anof wealth, to the advantage of the labourers themselvesof others. Work which can be done in the spare hours ofsubsisted from some other source, can (as before) be undertaken without withdrawing capital from other, beyond the amount (often very small) required tothe expense of tools and materials, and even this willbe provided by savings made expressly for the purpose. Theof our theorem thus failing, the theorem itself fails, andof this kind may, by the springing up of a demand forcommodity, be called into existence without depriving labouran equivalent amount of employment in any other quarter. Thedoes not, even in this case, operate on labour anythan through the medium of an existing capital, but itan inducement which causes that capital to set in motiongreater amount of labour than it did before.

The second exception, of which I shall speak at length in achapter, consists in the known effect of an extensionthe market for a commodity, in rendering possible an increasedof the division of labour, and hence a more effectiveof the productive forces of society. This, like the, is more an exception. in appearance than it is in. It is not the money paid by the purchaser, whichthe labour; it is the capital of the producer: theonly determines in what manner that capital shall be, and what kind of labour it shall remunerate; but if itthat the commodity shall be produced on a large scale,enables the same capital to produce more of the commodity, andby an indirect effect in causing an increase of capital,an eventual increase of the remuneration of the labourer.

The demand for commodities is a consideration of importancein the theory of exchange, than in that of production.at things in the aggregate, and permanently, theof the producer is derived from the productive powerhis own capital. The sale of the produce for money, and theexpenditure of the money in buying other commodities,a mere exchange of equivalent values for mutual. It is true that, the division of employments beingof the principal means of increasing the productive power of, the power of exchanging gives rise to a great increase ofproduce; but even then it is production, not exchange, whichlabour and capital. We cannot too strictly representourselves the operation of exchange, whether conducted byor through the medium of money, as the mere mechanism byeach person transforms the remuneration of his labour or ofcapital into the particular shape in which it is mostto him to possess it; but in no wise the source of theitself.

10. The preceding principles demonstrate the fallacy of manyarguments and doctrines, which are continuallythemselves in new forms. For example, it has been, and by some from whom better things might have been, that the argument for the income-tax, grounded on itson the higher and middle classes only, and sparing the, is an error; some have gone so far as to say, an imposture;in taking from the rich what they would have expendedthe poor, the tax injures the poor as much as if it haddirectly levied from them. Of this doctrine we now know whatthink. So far, indeed, as what is taken from the rich in, would, if not so taken, have been saved and converted into, or even expended in the maintenance and wages ofor of any class of unproductive labourers, to thatthe demand for labour is no doubt diminished, and the pooraffected, by the tax on the rich; and as theseare almost always produced in a greater or less degree,is impossible so to tax the rich as that

no portion whateverthe tax can fall on the poor. But even here the question, whether the government, after receiving the amount, willlay out as great a portion of it in the direct purchase of, as the taxpayers would have done. In regard to all thatof the tax, which, if not paid to the government, wouldbeen consumed in the form of commodities (or even expendedservices if the payment has been advanced by a capitalist),, according to the principles we have investigated, fallson the rich, and not at all on the poor. There isthe same demand for labour, so far as this portion is, after the tax, as before it. The capital whichemployed the labourers of the country, remains, and iscapable of employing the same number. There is the sameof produce paid in wages, or allotted to defray theand clothing of labourers.

If those against whom I am now contending were in the right,would be impossible to tax anybody except the poor. If it isthe labourers, to tax what is laid out in the produce of, the labouring classes pay all the taxes. The same, however, equally proves, that it is impossible to taxlabourers at all; since the tax, being laid out either inor in commodities, comes all back to them; so thathas the singular proper of falling on nobody. On theshowing, it would do the labourers no harm to take from themthey have, and distribute it among the other members of the. It would all be "spent among them," which on thiscomes to the same thing. The error is produced by notdirectly at the realities of the phenomena, but attendingto the outward mechanism of paying and spending. If we lookthe effects produced not on the money, which merely changes, but on the commodities which are used and consumed, we see, in consequence of the income-tax, the classes who pay it dodiminish their consumption. Exactly so far as they do, they are the persons on whom the tax falls. It is defrayedof what they would otherwise have used and enjoyed. So far,the other hand, as the burthen falls, not on what they wouldconsumed, but on what they would have saved to maintain, or spent in maintaining or paying unproductive, to that extent the tax forms a deduction from whathave been used and enjoyed by the labouring classes. But ifgovernment, as is probably the fact, expends fully as much ofamount as the tax-payers would have done in the directof labour, as in hiring sailors, soldiers, and, or in paying off debt, by which last operation it evencapital; the labouring classes not only do not lose anyby the tax, but may possibly gain some, and the wholethe tax falls exclusively where it was intended.

All that portion of the produce of the country which any one,a labourer, actually and literally consumes for his own use,not contribute in the smallest degree to the maintenance of. No one is benefited by mere consumption, except thewho consumes. And a person cannot both consume his income, and make it over to be consumed by others. Taking away aportion by taxation cannot deprive both him and them of, but only him or them. To know which is the sufferer, we mustwhose consumption will have to be retrenched in: this, whoever it be, is the person on whom the taxfalls.:. An exception must be admitted when the industry created orby the restrictive law belongs to the class of what aredomestic manufactures. These being carried on by personsfed — by labouring families, inthe intervals of other— no transfer of capital tothe occupation isto its being undertaken, beyond the value of theand tools, which is often inconsiderable. If,, a protecting duty causes this occupation to be carried, when it otherwise would not, there is in this case a realof the production of the country.

In order to render our theoretical proposition invulnerable,peculiar case must be allowed for; but it does not touch thedoctrine of free trade. Domestic manufactures cannot,the very nature of things, require protection, since theof the labourers being provided from other sources, theof the product, however much it may be reduced, is nearlyclear gain. If, therefore, the domestic producers retire fromcompetition, it is never from necessity, but because theis not worth the labour it costs, in the opinion of thejudges, those who enjoy the one and undergo the other. Theythe sacrifice of buying their clothing to the labour ofit. They will not continue their labour unless societygive them more for it, than in thier own opinion its productworth.. It is worth while to direct attention to several circumstancesto a certain extent diminish the detriment caused to thewealth by the prodigality of individuals, or raise up a, more or less ample, as a consequence of theitself. One of these is, that spendthrifts do notsucceed in consuming all they spend. Their habitualas to expenditure causes them to be cheated andon all quarters, often by persons of frugal habits. Largeare continually made by agents, stewards, and evenservants, of improvident persons of fortune; and theymuch higher prices for all purchases than people of careful, which accounts for their being popular as customers. They, therefore, acutally not able to get into their possessiondestroy a quantity of wealth by any means equivalent to thewhich they dissipate. Much of it is merely transferred to, by whom a part may be saved. Another thing to be observed, that the prodigality of some may reduce others to a forced. Suppose a sudden demand for some article of luxury,by the caprice of a prodigal, which not having beenon beforehand, there has been no increase of the usual. The price will rise; and may rise beyond the means or theof some of the habitual consumers, who may inforego their accustomed indulgence,and save the. If they do not, but continue to expend as great a valuebefore on the commodity, the dealers in it obtain, for onlysame quantity of the article, a return increased by the wholewhat the spendthrift has paid; and thus the amount which heis transferred bodily to them, and may be added to their; his increased personal consumption being made up by theof the other purchasers, who have obtained less thanof their accustomed gratification for the same equivalent.the other hand, a counter-process must be going on somewhere,the prodigal must have diminished his purchases in somequarter to balance the augmentation in this; he has perhapsin funds employed in sustaining productive labour, and thein subsistence and in the instruments of production havecommodities left on their hands, or have received, for theamount of commodities, a less than usual return. But suchof income or capital, by industrious persons, except whenextraordinary amount, are generally made up by increasingand privation; so that the capital of the community maybe, on the whole, impaired, and the prodigal may have had hisindulgence at the expense not of the permanent resources,of the temporary pleasures and comforts of others. For incase the community are poorer by what any one spends,others are in consequence led to curtail their spending.are yet other and more recondite ways in which theof some may bring about its compensation in the extraof others; but these can only be considered in that partthe Fourth Book, which treats of the limiting principle to theof capital.. On the other hand,it must be remembered that war abstractsproductive employment not only capital, but likewise; that the funds withdrawn from the renumeration oflabourers are partly employed in paying the same orindividuals for unproductive labour; and that by thisof its effects, war expenditure acts in precisely themanner to that which Dr. Chalmers points out, and, soas it goes, directly counteracts

the effects described in the. So far as labourers are taken from production, to man theand navy, the labouring classes are not damaged, theare not benefited, and the general produce of theis diminished, by war expenditure. Accordingly, Dr.'s doctrine, though true of this country, is whollyto countries differently circumstanced; to France,example, during the Napoleon wars. At that period the draughtthe labouring population of France, for a long series of, was enormous, while the funds which supported the war weresupplied by contributions levied on the countries overrunthe French arms, a very small proportion alone consisting ofcapital. In France, accordingly, the wages of labour didfall, but rose; the employers of labour were not benefited,injured; while the wealth of the country was impaired by theor total loss of so vast an amount of its productive. In England all this was reversed. England employedfew additional soldiers and sailors of her own,she diverted hundreds of millions of capital fromemployment, to supply munitions of war and supportfor her Continental allies. Consequently, as shown in the, her labourers suffered, her capitalists prospered, and herproductive resources did not fall off.. The following case, which presents the argument in a somewhatshape, may serve for still further illustration.

Suppose that a rich individual, A, expends a certain amountin wages or alms, which, as soon as received, is expendedconsumed, in the form of coarse food, by the receivers. A, leaving his property to B, who discontinues this item of, and expends in lieu of it the same sum each day infor his own table, I have chosen this supposition, intht the two cases may be similar in all their, except that which is the subject of comparison. Innot to obscure the essential facts of the case bythem through the hazy medium of a money transaction,us further suppose that A, and B after him, are landlords ofestate on which both the food consumed by the recipients of's disbursements, and the articles of luxury supplied for B's, are produced; and that their rent is paid to them in kind,giving previous notice what description of produce theyrequire. The question is, whether B's expenditure gives asemployment or as much food to his poorer neighbours as A's.

From the case as stated, it seems to follow that while A, that portion of his income which he expended in wages or, would be drawn by him from the farm in the shape of foodlabourers, and would be used as such; while B, who came after, would require, instead of this, an equivalent value inarticles of food, to be consumed in his own household:the farmer, therefore, would, under B's regime, produce thatless of ordinary food, and more of expensive delicacies, forday of the year,than was produced in A's time, and thatwould be that amount less of food shared, throughout the, among the labouring and poorer classes. This is what wouldconformable to the principles laid down in the text. Those whodifferently, must, on the other hand, suppose that therequired by B would be produced, not instead of, but into, the food previously supplied to A's labourers, andthe aggregate produce of the country would be increased in. But when it is asked, how this double production would be, would be enabled to supply the new wants of B, withoutless of other things; the only mode which presentsis, that he should first produce the food, and then,that food to the labourers whom A formerly fed, should byof their labour, produce the luxuries wanted by B. This, when the objectors are hard pressed, appears to betheir meaning. But it is an obvious answer, that on this, B must wait for his luxuries till the second year,they are wanted this year. By the original hypothesis, hehis luxurious dinner day by day, pari passu with theof bread and potatoes formerly served out by A to his.

There is not time to feed the labourers first, andB afterwards: he and they cannot both have their wantsto: he can only satisfy his own demand for, by leaving as much of theirs, as was formerlyfrom that fund, unsatisfied.

It may, indeed, be rejoined by an objector, that since, onpresent showing, time is the only thing wanting to render theof B consistent with as large an employment to labourwas given by A, why may we not suppose that B postpones hisconsumption of personal luxuries until they can beto him by the labour of the persons whom A employed? Incase, it may be said, he would employ and feed as muchas his predecessors. Undoubtedly he would; but why?his income would be expended in exactly the same mannerhis predecessor's; it would be expended in wages. A reservedhis personal consumption a fund which he paid away directlylabourers; B does the same, only instead of paying it to them, he leaves in the hands of the farmer, who pays it tofor him. On this supposition, B, in the first year, neitherthe amount, as far as he is personally concerned, in's manner nor in his own, really saves that portion of his, and lends it to the farmer. And if, in subsequent years,himself within the year's income, he leaves the farmerarrears to that amount, it becomes an additional capital, withthe farmer may permanently employ and feed A's labourers.pretends that such a change as this, a change froman income in wages of labour, to saving it for, deprives any labourers of employment. What isto have that effect is, the change from hiring labourersbuying commodities for personal use; as represented by ourhypothesis.

In our illustration we have supposed no buying and selling,use of money. But the case as we have put it, corresponds withfact in everything except the details of the mechanism.whole of any country is virtually a single farm and, from which every member of the community draws hisshare of the produce, having a certain number of, called pounds sterling, put into his hands, which, atconvenience, he brings back and exchanges for such goods asprefers, up to the limit of the amount. He does not, as in ourcase, give notice beforehand what things he shall; but the dealers and producers are quite capable ofit out by observation, and any change in the demand isfollowed by an adaptation of the supply to it. If achanges from paying away a part of his income in wages,spending it that same day (not some subsequent and distant) in things for his own consumption, and perseveres in thispractice until production has had time to adapt itself toalteration of demand, there will from that time be less foodother articles for the use of labourers, produced in the, by exactly the value of the extra luxuries now demanded;the labourers, as a class, will be worse off by the precise.

The Principles of Political Economy

John Stuart Mill1,

Chapter 6

Circulating and Fixed Capital

1. To complete our explanations on the subject of capital, itnecessary to say something of the two species into which it isdivided. The distinction is very obvious, and though not, has been often adverted to, in the two preceding chapters:it is now proper to define it accurately, and to point out aof its consequences.

Of the capital engaged in the production of any commodity,is a part which, after being once used, exists no longer as; is no longer capable of rendering service to production,at least not the same service, nor to the same sort of. Such, for example, is the portion of capital whichof materials. The tallow and alkali of which soap is, once used in the manufacture, are destroyed as alkali and; and cannot be employed any further in the soap, though in their altered condition, as soap, they areof being used as a material or an instrument in otherof manufacture. In the same division must be placed theof capital which is paid as the wages, or consumed as the, of labourers. The part of the capital of awhich he pays away to his work-people, once so, exists no longer as his capital, or as a cotton-spinner's: such portion of it as the workmen consume, no longeras capital at all: even if they save any part, it may nowmore properly regarded as a fresh capital, the result of aact of accumulation. Capital which in this manner fulfilswhole of its office in the production in which it is engaged,a single use, is called Circulating Capital. The term, whichnot very appropriate, is derived from the circumstance, thatportion of capital requires to be constantly renewed by theof the finished product, and when renewed is perpetuallywith in buying materials and paying wages; so that it doeswork, not by being kept, but by changing hands.

Another large portion of capital, however, consists inof production, of a more or less permanent character;produce their effect not by being parted with, but by being; and the efficacy of which is not exhausted by a single use.this class belong buildings, machinery, and all or most thingsby the name of implements or tools. The durability of somethese is considerable, and their function as productiveis prolonged through many repetitions of theoperation. In this class must likewise be includedsunk (as the expression is) in permanent improvements of. So also the capital expended once for all, in theof an undertaking, to prepare the way for subsequent: the expense of opening a mine, for example: ofcanals, of making roads or docks. Other examples might be, but these are sufficient. Capital which exists in any ofdurable shapes, and the return to which is spread over aof corresponding duration, is called Fixed Capital.

Of fixed capital, some kinds require to be occasionally orrenewed. Such are all implements and buildings: they, at intervals, partial renewal by means of repairs, andat last entirely worn out, and cannot be of any furtheras buildings and implements, but fall back into the classmaterials. In other cases, the capital does not, unless as aof some unusual accident, require entire renewal: butis always some outlay needed, either regularly or at least, to keep it up. A dock or a canal, once made, doesrequire, like a machine, to be made

again, unless purposely, or unless an earthquake or some similar catastrophefilled it up: but regular and frequent outlays are necessarykeep it in repair. The cost of opening a mine needs not bea second time; but unless some one goes to the expensekeeping the mine clear of water, it is soon rendered useless.most permanent of all kinds of fixed capital is that employedgiving increased productiveness to a natural agent, such as. The draining of marshy or inundated tracts like the Bedford, the reclaiming of land from the sea, or its protection by, are improvements calculated for perpetuity; butand dykes require frequent repairs. The same character ofbelongs to the improvement of land by subsoil, which adds so much to the productiveness of the clay; or by permanent manures, that is, by the addition to the, not of the substances which enter into the composition of, and which are therefore consumed by vegetation, butthose which merely alter the relation of the soil to air and; as sand and lime on the heavy soils, clay and marl on the. Even such works, however, require some, though it may belittle, occasional outlay to maintain their full effect.

These improvements, however, by the very fact of theirthat title, produce an increase of return, which, afterall expenditure necessary for keeping them up, stilla surplus. This surplus forms the return to the capitalin the first instance, and that return does not, as in theof machinery, terminate by the wearing out of the machine,continues for ever. The land, thus increased in, bears a value in the market, proportional to the: and hence it is usual to consider the capital which was, or sunk, in making the improvement, as still existingthe increased value of the land. There must be no mistake,. The capital, like all other capital, has been consumed.was consumed in maintaining the labourers who executed the, and in the wear and tear of the tools by which theyassisted. But it was consumed productively, and has left aresult in the improved productiveness of annatural agent, the land. We may call the increasedthe joint result of the land and of a capital fixed inland. But as the capital, having in reality been consumed,be withdrawn, its productiveness is thenceforthblended with that arising from the originalof the soil; and the remuneration for the use of itdepends, not upon the laws which govern the returnslabour and capital, but upon those which govern the recompensenatural agents. What these are, we shall see hereafter.(1*)

2. There is a great difference between the effects ofand those of fixed capital, on the amount of theproduce of the country. Circulating capital being destroyedsuch, or at any rate finally lost to the owner, by a single; and the product resulting from that one use being the onlyfrom which the owner can replace the capital, or obtainremuneration for its productive employment; the product mustcourse be sufficient for those purposes, or in other words,result of a single use must be a reproduction equal to theamount of the circulating capital used, and a profit. This, however, is by no means necessary in the case ofcapital. Since machinery, for example, is not whollyby one use, it is not necessary that it should be whollyfrom the product of that use. The machine answers theof its owner if it brings in, during each interval of, enough to cover the expense of repairs, and thein value which the machine has sustained during thetime, with a surplus sufficient to yield the ordinary profitthe entire value of the machine.

From this it follows that all increase of fixed capital, whenplace at the expense of circulating, must be, at least, prejudicial to the interests of the labourers. Thistrue, not of

machinery alone, but of all improvements by whichis sunk; that is, rendered permanently incapable of beingto the maintenance and remuneration of labour. Supposea person farms his own land, with a capital of two thousandof corn, employed in maintaining labourers during one(for simplicity we omit the consideration of seed and), whose labour produces him annually two thousand fourquarters, being a profit of twenty per cent. This profitshall suppose that he annually consumes, carrying on hisfrom year to year on the original capital of twoquarters. Let us now suppose that by the expenditure ofhis capital he effects a permanent improvement of his land,is executed by half his labourers, and occupies them for a, after which he will only require, for the effectualof his land, half as many labourers as before. Theof his capital he employs as usual. In the first yearis no difference in the condition of the labourers, exceptpart of them have received the same pay for an operation onland, which they previously obtained for ploughing, sowing,reaping. At the end of the year, however, the improver has, as before, a capital of two thousand quarters of corn. Onlythousand quarters of his capital have been reproduced in theway: he has now only those thousand quarters and his. He will employ, in the next and in each following, only half the number of labourers, and will divide amongonly half the former quantity of subsistence. The loss willbe made up to them if the improved land, with the diminishedof labour, produces two thousand four hundred quartersbefore, because so enormous an accession of gain will probablythe improver to save a part, add it to his capital, anda larger employer of labour. But it is conceivable thatmay not be the case; for (supposing, as we may do, that thewill last indefinitely, without any outlay worthto keep it up) the improver will have gained largelyhis improvement if the land now yields, not two thousand four, but one thousand five hundred quarters; since this willthe one thousand quarters forming his present circulating, with a profit of twenty-five per cent (instead of twentybefore) on the whole capital, fixed and circulating together.improvement, therefore, may be a very profitable one to him,yet very injurious to the labourers.

The supposition, in the terms in which it has been stated, isideal; or at most applicable only to such a case as thatthe conversion of arable land into pasture, which, thougha frequent practice, is regarded by modernas the reverse of an improvement.(2*) But thisnot affect the substance of the argument. Suppose that thedoes not operate in the manner supposed — does nota part of the labour previously employed on the land to bewith — but only enables the same labour to raise aproduce. Suppose, too, that the greater produce, which byof the improvement can be raised from the soil with thelabour, is all wanted, and will find purchasers. Thewill in that case require the same number of labourersbefore, at the same wages. But where will he find the means ofthem? He has no longer his original capital of twoquarters disposable for the purpose. One thousand ofare lost and gone — consumed in making the improvement. Ifis to employ as many labourers as before, and pay them as, he must borrow, or obtain from some other source, aquarters to supply the deficit. But these thousandalready maintained, or were destined to maintain, anquantity of labour. They are not a fresh creation;destination is only changed from one productive employmentanother; and though the agriculturist has made up thein his own circulating capital, the breach in thecapital of the community remains unrepaired.

The argument relied on by most of those who contend thatcan never be injurious to the labouring class, is, thatcheapening production it creates such an increased demand

forcommodity, as enables, ere long, a greater number of personsever to find employment in producing it. This argument doesseem to me to have the weight commonly ascribed to it. The, though too broadly stated, is, no doubt, often true. Thewho were thrown out of employment by the invention of, were doubtless soon outnumbered by the compositors andwho took their place; and the number of labouringnow occupied in the cotton manufacture is many timesthan were so occupied previously to the inventions ofand Arkwright, which shows that besides the enormouscapital now embarked in the manufacture, it also employs alarger circulating capital than at any former time. But ifcapital was drawn from other employments; if the funds whichthe place of the capital sunk in costly machinery, werenot by any additional saving consequent on the, but by drafts on the general capital of the. what better were the labouring classes for the mere? In what manner was the loss they sustained by theof circulating into fixed capital made up to them by ashifting of part of the remainder of the circulating capitalits old employments to a new one?

All attempts to make out that the labouring classes as abody cannot suffer temporarily by the introduction of, or by the sinking of capital in permanent, are, I conceive, necessarily fallacious. That theysuffer in the particular department of industry to whichchange applies, is generally admitted, and obvious to common; but it is often said, that though employment is withdrawnlabour in one department, an exactly equivalent employmentopened for it in others, because what the consumers save inincreased cheapness of one particular article enables them totheir consumption of others, thereby increasing thefor other kinds of labour. This is plausible, but, as wasin the last chapter, involves a fallacy; demand forbeing a totally different thing from demand for. It is true, the consumers have now additional means ofother things; but this will not create the other things,there is capital to produce them, and the improvement hasset at liberty any capital, if even it has not absorbed someother employments. The supposed increase of production andemployment for labour in other departments therefore will notplace; and the increased demand for commodities by some, will be balanced by a cessation of demand on the partothers, namely, the labourers who were superseded by the, and who will now be maintained, if at all, by, either in the way of competition or of charity, in whatpreviously consumed by other people.

3. Nevertheless, I do not believe that as things are actually, improvements in production are often, if ever,, even temporarily, to the labouring classes in the. They would be so if they took place suddenly to aamount, because much of the capital sunk must necessarilythat case be provided from funds already employed ascapital. But improvements are always introduced very, and are seldom or never made by withdrawingcapital from actual production, but are made by theof the annual increase. There are few if any examplesa great increase of fixed capital, at a time and place wherecapital was not rapidly increasing likewise. It isin poor or backward countries that great and costlyin production are made. To sink capital in land forpermanent return — to introduce expensive machinery — areinvolving immediate sacrifice for distant objects; and, in the first place, tolerably complete security of; in the second, considerable activity of industrial; and in the third, a high standard of what has beenthe "effective desire of accumulation:" which three thingsthe elements of a society rapidly progressive in its

amountcapital. Although, therefore, the labouring classes must, not only if the increase of fixed capital takes place atexpense of circulating, but even if it is so large and rapidto retard that ordinary increase to which the growth ofhas habitually adapted itself; yet, in point of fact,is very unlikely to happen, since there is probably nowhose fixed capital increases in a ratio more thanto its circulating. If the whole of the railways, during the speculative madness of 1845, obtained theof Parliament, had been constructed in the times fixedthe completion of each, this improbable contingency would,likely, have been realized; but this very case has affordedstriking example of the difficulties which oppose the diversionnew channels, of any considerable portion of the capitalsupplies the old: difficulties generally much more thanto prevent enterprises that involve the sinking of, from extending themselves with such rapidity as tothe sources of the existing employment for labour.

To these considerations must be added, that even ifdid for a time decrease the aggregate produce andcirculating capital of the community, they would not the lessin the long run to augment both. They increase the return to; and of this increase the benefit must necessarily accrueto the capitalist in greater profits, or to the customerdiminished prices; affording, in either case, an augmentedfrom which accumulation may be made, while enlarged profitshold out an increased inducement to accumulation. In thewe before selected, in which the immediate result of thewas to diminish the gross produce from two thousandhundred quarters to one thousand five hundred, yet theof the capitalist being now five hundred quarters insteadfour hundred, the extra one hundred quarters, if regularly, would in a few years replace the one thousand quartersfrom his circulating capital. Now the extension ofwhich almost certainly follows in any department inan improvement has been made, affords a strong inducementthose engaged in it to add to their capital; and hence, at thepace at which improvements are usually introduced, a greatof the capital which the improvement ultimately absorbs, isfrom the increased profits and increased savings which ititself called forth.

This tendency of improvements in production to causeaccumulation, and thereby ultimately to increase theproduce, even if temporarily diminishing it, will assume amore decided character if it, should appear that there arelimits both to the accumulation of capital, and to theof production from the land, which limits once attained,further increase of produce must stop; but that improvementsproduction, whatever may be their other effects, tend to throwor both of these limits farther off. Now, these are truthswill appear in the clearest light in a subsequent stage ofinvestigation. It will be seen, that the quantity of capitalwill, or even which can, be accumulated in any country, andamount of gross produce which will, or even which can, be, bear a proportion to the state of the arts of productionexisting; and that every improvement, even if for the timediminish the circulating capital and the gross produce,makes room for a larger amount of both, than couldhave existed otherwise. It is this which is theanswer to the objections against machinery; and thethence arising of the ultimate benefit to labourers ofinventions even in the existing state of society, willbe seen to be conclusive.(3*) But this does notgovernments from the obligation of alleviating, and ifpreventing, the evils of which this source of ultimateis or may be productive to an existing generation. If theor fixing of capital in machinery or useful works wereto proceed at such a pace as to impair materially

the fundsthe maintenance of labour, it would be incumbent onto take measures for moderating its rapidity: andimprovements which do not diminish employment on the whole,always throw some particular class of labourers out of it,cannot be a more legitimate object of the legislator's carethe interests of those who are thus sacrificed to the gainstheir fellow-citizens and of posterity.

To return to the theoretical distinction between fixed andcapital. Since all wealth which is destined to befor reproduction comes within the designation of, there are parts of capital which do not agree with theof either species of it; for instance, the stock ofgoods which a manufacturer or dealer at any timeunsold in his warehouses. But this, though capital asits destination, is not yet capital in actual exercise. it isengaged in production, but has first to he sold or exchanged,is, converted into an equivalent value of some other; and therefore is not yet either fixed or circulating; but will become either one or the other, or bedivided between them. With the proceeds of hisgoods, a manufacturer will partly pay his work-people,replenish his stock of the materials of his manufacture,partly provide new buildings and machinery, or repair the; but how much will be devoted to one purpose, and how much to, depends on the nature of the manufacture, and theof the particular moment.

It should be observed further, that the portion of capitalin the form of seed or material, though, unlike fixed, it requires to be at once replaced from the gross, stands yet in the same relation to the employment of, as fixed capital does. What is expended in materials ismuch withdrawn from the maintenance and remuneration of, as what is fixed in machinery; and if capital nowin wages were diverted to the providing of materials,effect on the labourers would be as prejudicial as if it wereinto fixed capital. This, however, is a kind of changeseldom, if ever, takes place. The tendency of improvementsproduction is always to economize, never to increase, theof seed or material for a given produce; and theof the labourers has no detriment to apprehend from this.:. Infra, book ii. chap. xvi. On Rent.. The clearing away of the small farmers in the North of, within the present century, was, however, a case of it;Ireland, since the potato famine and the repeal of the corn, is another. The remarkable decrease which has latelynotice in the gross produce of Irish agriculture, is,all appearance, partly attributable to the diversion of landmaintaining human labourers to feeding cattle; and it couldhave taken place without the removal of a large part of thepopulation by emigration or death. We have thus two recent, in which what was regarded as an agricultural, has diminished the power of the country to supportpopulation. The effect, however, of all the improvements duemodern science is to increase, or at all events, not to, the gross produce.. Infra, book iv. chap. v.

The Principles of Political Economy

John Stuart Mill1,

Chapter 7

What Depends the Degree of Productiveness of Productive Agents

1. We have concluded our general survey of the requisites of. We have found that they may be reduced to three:, capital, and the materials and motive forces afforded by. Of these, labour and the raw material of the globe areand indispensable. Natural motive powers may be called inthe assistance of labour, and are a help, but not an, of production. The remaining requisite, capital, isthe product of labour: its instrumentality in productiontherefore, in reality, that of labour in an shape. It does notless require to be specified separately. A previousof labour to produce the capital required forduring the work, is no less essential than theof labour to the work itself. Of capital, again, one,by far the largest, portion, conduces to production only byin existence the labour which produces: the remainder,the instruments and materials, contribute to it directly,the same manner with natural agents, and the materialsby nature.

We now advance to the second great question in political; on what the degree of productiveness of these agents. For it is evident that their productive efficacy variesat various times and places. With the same population andof territory, some countries have a much lager amount ofthan others, and the same country at one time aamount than itself at another. Compare England eithera similar extent of territory in Russia, or with an equalof Russians. Compare England now with England in theAges; Sicily, Northern Africa, or Syria at present, withsame countries at the time of their greatest prosperity,the Roman Conquest. Some of the causes which contribute todifference of productiveness are obvious; others not so much. We proceed to specify several of them.

2. The most evident cause of superior productiveness is whatcalled natural advantages. These are various. Fertility ofis one of the principal. In this there are great varieties,the deserts of Arabia to the alluvial plains of the Ganges,Niger, and the Mississippi. A favourable climate is even morethan a rich soil. There are countries capable of being, but too cold to be compatible with agriculture. Theircannot pass beyond the nomadic state; they must live,the Laplanders, by the domestication of the rein-deer, ifby hunting or fishing, like the miserable Esquimaux. Therecountries where oats will ripen, but not wheat, such as theof Scotland; others where wheat can be grown, but fromof moisture and want of sunshine, affords but a precious; as in parts of Ireland. With each advance towards the, or, in the European temperate region, towards the east,new branch of agriculture becomes first possible, then; the vine, maize, silk, figs, olives, rice, dates,present themselves, until we come to the sugar,, cotton, spices, &c. of climates which also afford, of thecommon agricultural products, and with only a slight degreecultivation, two or even three harvests in a year. Nor is itagriculture alone that differences of climate ae important.influence is felt in many other branches of production: indurability of all work which is exposed to the air; of, for example. If the temples of Karnac and Luxor hadbeen injured by men, they might have subsisted in theirperfection almost for ever, for the inscriptions on somethem, though anterior to all authentic history, are fresheris in our climate an inscription fifty years old: while at. Petersburg, the most

massive works, solidly executed inhardly a generation ago, are already, as travellers tell, almost in a state to require reconstruction, from alternateto summer heat and intense frost. The superiority of thefabrics of Southern Europe over those of England in theand clearness of many of their colours, is ascribed tosuperior quality of the atmosphere, for which neither theof chemists nor the skill of dyers has been able to, in our hazy and damp climate, a complete equivalent.

Another part of the influence of climate consists inthe physical requirements of the producers. In hot, mankind can exist in comfort with less perfect housing,clothing; fuel, that absolute necessary of life in cold, they can almost dispense with, except for industrial. They also require less aliment; as experience had proved,before theory had accounted for it by ascertaining that mostwhat we consume as food is not required for the actualof the organs, but for keeping up the animal heat, andsupplying the necessary stimulus to the vital functions,in hot climates is almost sufficiently supplied by air and. Much, therefore, of the labour elsewhere expended tothe mere necessaries of life, not being required, moredisposable for its higher uses and its enjoyments; if theof the inhabitants does not rather induce them to usethese advantages in over-population, or in the indulgence of.

Among natural advantages, besides soil and climate, must beabundance of mineral productions, in convenient, and capable of being worked with moderate labour.are the coal-fields of Great Britain, which do so much toits inhabitants for the disadvantages of climate; andscarcely inferior resource possessed by this country and theStates, in a copious supply of an easily reduced iron ore,no great depth below the earth's surface, and in closeto coal deposits available for working it. In mountainhill districts, the abundance of natural water-power makesamends for the usually inferior fertility of those. But perhaps a greater advantage than all these is asituation, especially when accompanied with good natural; and, next to it, great navigable rivers. Theseconsist indeed wholly in saving of cost of carriage.few who have not considered the subject, have any adequatehow great an extent of economical advantage this; nor, without having considered the influence exercisedproduction by exchanges, and by what is called the division of, can it be fully estimated. So important is it, that itdoes more than counterbalance sterility of soil, and almostother natural inferiority; especially in that early stageindustry in which labour and science have not yet providedmeans of communication capable of rivalling the. In the ancient world, and in the Middle ages, the mostcommunities were not those which had the largest, or the most fertile soil, but rather those which hadforced by natural sterility to make the utmost use of amaritime situation; as athens, Tyre, Marseilles,, the free cities on the Baltic, and the like.

3. So much for natural advantages; the value of which,paribus, is too obvious to be ever underrated. Buttestifies that natural advantages scarcely ever do forcommunity, no more than fortune and station do for an, anything like what it lies in their nature, or incapacity, to do. Neither now nor in former ages have thepossessing the best climate and soil, been either theor the most powerful; but (in so far as regards the massthe people) generally among the poorest, though, in the midstpoverty, probably on the whole the most enjoying. Human lifethose countries can be supported on so little, that the poorsuffer from anxiety, and in climates in which mereis a pleasure, the luxury which they prefer is that of. Energy, at the call of passion, they possess in, but not that which is manifested in sustained

andlabour: and as they seldom concern themselves enoughremote objects to establish good political institutions,incentives to industry are further weakened by imperfectof its fruits. Successful production, like most otherof success, depends more on the qualities of the human, than on the circumstances in which they work: and it is, not facilities, that nourish bodily and mental. accordingly the tribes of mankind who have overrun andothers, and compelled them to labour for their benefit,been mostly reared amidst hardship. They have either beenin the forests of northern climates, or the deficiency ofhardships has been supplied, as among the Greeks and, by the artificial ones of a rigid military discipline.the time when the circumstances of modern society permitteddiscontinuance of that discipline, the South has no longerconquering nations; military vigour, as well asthought and industrial energy, have all had theirseats in the less favoured North.

As the second, therefore, of the causes of superior, we may rank the greater energy of labour. By thisnot to be understood occasional, but regular and habitual. No one undergoes, without murmuring, a greater amount offatigue and hardship, or has his bodily powers, andfaculties of mind as he possesses, kept longer at at theirstretch, than the North American; yet his indolence, whenever he has a brief respite from the pressure ofwants. Individuals, or nations, do not differ so much inefforts they are able and willing to make under strongincentives, as in their capacity of present exertiona distant object; and in the thoroughness of theirto work on ordinary occasions. Some amount of theseis a necessary condition of any great improvement among. To civilize a savage, he must be inspired with new wantsdesires, even if not of a very elevated kind, provided thatgratification can be a motive to steady and regular bodilymental exertion. If the negroes of Jamaica and Demerara,their emancipation, had contented themselves, as it wasthey would do, with the necessaries of life, andall labour beyond the little which in a tropical, with a thin population and abundance of the richest, is sufficient to support existence, they would have sunka condition more barbarous, though less unhappy, than theirstate of slavery. The motive which was most relied oninducing them to work was their love of fine clothes andornaments. No one will stand up for this taste as worthybeing cultivated, and in most societies its indulgence tendsimpoverish rather than to enrich; but in the state of mind ofnegroes it might have been the only incentive that could makevoluntarily undergo systematic labour, and so acquire orhabits of voluntary industry which may be converted tovaluable ends. In England, it is not the desire of wealthneeds to be taught, but the use of wealth, and appreciationthe objects of desire which wealth cannot purchase, or forwhich it is not required. Every real improvement in theof the English, whether it consist in giving themaspirations, or only a juster estimate of the value ofpresent objects of desire, must necessarily moderate theof their devotion to the pursuit of wealth. There is no, however, that it should diminish the strenuous andapplication to the matter at hand, which is found inbest English workmen, and is their most valuable quality.

The desirable medium is one which mankind have not oftenhow to hit: when they labour, to do it with all their, and especially with all their mind; but to devote to, for mere pecuniary gain, fewer hours in the day, fewerin the year, and fewer years of life.

4. The third element which determines the productiveness oflabour of a community, is the skill and knowledge therein; whether it be the skill and knowledge of the labourers, or of those who direct their labour. No illustrationrequisite to show how the

efficacy of industry is promoted bymanual dexterity of those who perform mere routine processes;the intelligence of those engaged in operations in which thehas a considerable part; and by the amount of knowledge ofpowers and of the properties of objects, which is turnedthe purposes of industry. That the productiveness of theof a people is limited by their knowledge of the arts of, is self-evident; and that any progress in those arts, anyapplication of the objects or powers of nature touses, enables the same quantity and intensity ofto raise a greater produce.

One principal department of these improvements consists ininvention and use of tools and machinery. The manner in whichserve to increase production and to economize labour, needsbe specially detailed in a work like the present: it will beexplained and exemplified, in a manner at once scientificpopular, in Mr. Babbage's well-known "Economy of MachineryManufactures." An entire chapter of Mr. Babbage's book isof instances of the efficacy of machinery in "exertingtoo great for human power, and executing operations toofor human touch." But to find examples of work whichnot be performed at all by unassisted labour, we need notso far. Without pumps, worked by steam-engines or otherwise,water which collects in mines could not in many situations berid of at all, and the mines, after being worked to a little, must be abandoned: without ships or boats the sea couldhave been crossed; without tools of some sort, trees couldbe cut down, nor rocks excavated; a plough, or at least a, is necessary to any tillage of the ground. Very simple andinstruments, however, are sufficient to render literallymost works hitherto executed by mankind. and subsequenthave chiefly served to enable the work to be performedgreater perfection, and, above all, with a greatly diminishedof labour: the labour thus saved becoming disposable foremployments.

The use of machinery is far from being the only mode in whicheffects of knowledge in aiding production are exemplified. Inand horticulture, machinery is only now beginning tothat it can do anything of importance, beyond the inventionprogressive improvement of the plough and a few other simple. The greatest agricultural inventions have consistedthe direct application of more judicious processes to the land, and to the plants growing on it; such as rotation of, to avoid the necessity of leaving the land for one seasonevery two or three; improved manures, to renovate itswhen exhausted by cropping; ploughing and draining theas well as the surface; conversion of bogs and marshescultivable land; such modes of pruning, and of training andup plants and trees, as experience has shown to deservepreference; in the case of the more expensive cultures,the roots or seeds further apart, and more completelythe soil in which they are placed, &c. Inand commerce, some of the most importantconsist in economizing time; in making the returnmore speedily upon the labour and outlay. There are otherswhich the advantage consists in economy of material.

5. But the effects of the increased knowledge of a communityincreasing its wealth, need the less illustration as they havefamiliar to the most uneducated, from such conspicuousas railways and steam-ships. A thing not yet so welland recognised, is the economical value of the generalof intelligence among the people. The number of personsto direct and superintend any industrial enterprise, orto execute any process which cannot be reduced almost to anof memory and routine, is always far short of the demand;is evident from the enormous difference between the salariesto such persons, and the wages of

ordinary labour. Theof practical good sense, which renders the majority oflabouring class such bad calculators — which makes, for, their domestic economy so improvident, lax, and— must disqualify them for any but a low grade oflabour, and render their industry far less productivewith equal energy it otherwise might be. The importance,in this limited aspect, of popular education, is well worthythe attention of politicians, especially in England; sinceobservers, accustomed to employ labourers of various, testify that in the workmen of other countries theyfind great intelligence wholly apart from instruction, butif an English labourer is anything but a hewer of wood and aof water, he is indebted for it to education, which in hisis almost always self-education. Mr. Escher, of Zurich (anand cotton manufacturer employing nearly two thousandmen of many different nations), in his evidence annexedthe Report of the Poor Law Commissioners, in 1840, on theof pauper children, gives a character of English aswith Continental workmen, which all persons of similarwill, I believe, confirm.

"The Italians' quickness of perception is shown in rapidlyany new descriptions of labour put into their, in a power of quickly comprehending the meaning of their, of adapting themselves to new circumstances, muchwhat any other classes have. The French workmen have thenatural characteristics, only in a somewhat lower degree.English, Swiss, German, and Dutch workmen, we find, have allslower natural comprehension. As workmen only, theis undoubtedly due to the English; because, as we find, they are all trained to special branches, on which theyhad comparatively superior training, and have concentratedtheir thoughts. As men of business or of general usefulness,as men with whom an employer would best like to be, I should, however, decidedly prefer the Saxons andSwiss, but more especially the Saxons, because they have hadvery careful general education, which has extended theirbeyond any special employment, and rendered them fittake up, after a short preparation, any employment to whichmay be called. If I have an English workman engaged in theof a steam-engine, he will understand that, and nothing; and for other circumstances or other branches of mechanics,closely allied, he will be comparatively helpless tohimself to all the circumstances that may arise, to makefor them, and give sound advice or write clearand letters on his work in the various relatedof mechanics."

On the connexion between mental cultivation and moralin the labouring class, the same witness says,"The better educated workmen, we find, are distinguished bymoral habits in every respect. In the first place, theyentirely sober; they are discreet in their enjoyments, whichof a more rational and refined kind; they have a taste forbetter society, which they approach respectfully, andfind much readier admittance to it; they cultivate; they read; they enjoy the pleasures of scenery, and makefor excursions into the count; they are economical, andeconomy extends beyond their own purse to the stock ofmaster; they are, consequently, honest and trustworthy."in answer to a question respecting the English workmen,"Whilst in respect to the work to which they have been speciallythey are the most skilful, they are in conduct the most, debauched, and unruly, and least respectable andof any nation whatsoever whom we have employed; andsaying this, I express the experience of every manufacturer onContinent to whom I have spoken, and especially of themanufacturers, who make the loudest complaints. Theseof depravity do not apply to the English workmenhave received an education, but attach to the others in thein which

they are in want of it. When the uneducatedworkmen are released from the bonds of iron discipline inthey have been restrained by their employers in England,are treated with the urbanity and friendly feeling which theeducated workmen on the Continent expect and receive fromemployers, they, the English workmen, completely lose their: they do not understand their position, and after atime become totally unmanageable and useless."* Thisof observation is borne out by experience in England. As soon as any idea of equality enters the mind of anEnglish working man, his head is turned by it. When heto be servile, he becomes insolent.

The moral qualities of the labourers are fully as importantthe efficiency and worth of their labour, as the intellectual.of the effects of intemperance upon their bodilymental faculties, and of flighty, unsteady habits upon theand continuity of their work (points so easily understoodnot to require being insisted upon), it is well worthy of, how much of the aggregate effect of their labouron their trustworthiness. All the labour now expended inthat they fulfil their engagement, or in verifying thathave fulfilled it, is so much withdrawn from the realof production, to be devoted to a subsidiary functionneedful not by the necessity of things, but by theof men. Nor are the greatest outward precautions morevery imperfectly efficacious, where, as is now almostthe case with hired labourers, the slightestof vigilance is an opportunity eagerly seized forperformance of their contract. The advantage to mankindbeing able to trust one another, penetrates into every crevicecranny of human life: the economical is perhaps the smallestof it, yet even this iS incalculable. To consider only theobvious part of the waste of wealth occasioned to society byimprobity; there is in all rich communities a predatory, who live by pillaging or overreaching other people;numbers cannot be authentically ascertained, but on theestimate, in a country like England, it is very large. Theof these persons is a direct burthen on the national. The police, and the whole apparatus of punishment, andcriminal and partly of civil justice, are a second burthennecessity by the first. The exorbitantly-paid professionlawyers, so far as their work is not created by defects in the, of their own contriving, are required and supportedby the dishonesty of mankind. As the standard ofin a community rises higher, all these expenses become. But this positive saving would be far outweighed by theincrease in the produce of aU kinds of labour, and savingtime and expenditure, which would be obtained if the labourersperformed what they undertake; and by the increased, the feeing of power and confidence, with which works ofsorts would be planned and carried on by those who felt thatwhose aid was required would do their part faithfullyto their contracts. Conjoint action is possible just inas human beings can rely on each other. There arein Europe, of first-rate industrial capabilities, wheremost serious impediment to conducting business concerns on ascale, is the rarity of persons who are supposed fit to bewith the receipt and expenditure of large sums of money.are nations whose commodities are looked shily upon by, because they cannot depend on finding the quality ofarticle conformable to that of the sample. Such short-sightedare far from unexampled in English exports. Every one hasof "devil's dust:" and among other instances given by Mr., is one in which a branch of export trade was for a longactually stopped by the forgeries and frauds which hadin it. On the other hand, the substantial advantagein business transactions from proved trustworthiness, isless remarkably exemplified in the same work. "At one of ourtowns, sales and purchases on a very extensive scale aredaily in the course of business without any of the partiesexchanging a written document."* Spread

over a year's, how great a return, in saving of time, trouble, and, is brought in to the producers and dealers of such afrom their own integrity. "The influence of establishedin producing confidence operated in a very remarkableat the time of the exclusion of British manufactures fromContinent during the last war. One of our largesthad been in the habit of doing extensive businessa house in the centre of Germany; but on the closing of theports against our manufactures, heavy penalties wereon all those who contravened the Berlin and Milan. The English manufacturer continued, nevertheless, toorders, with directions how to consign them, andfor the time and mode of payment, in letters, theof which was known to him, but which were neverexcept by the Christian name of one of the firm, and evensome instances they were without any signature at all. Thesewere executed, and in no instance was there the leastin the payments."(1*)

6. Among the secondary causes which determine theof productive agents, the most important is. By security I mean the completeness of the protectionsociety affords to its members. This consists of protectionthe government, and protection against the government. Theis the more important. Where a person known to possessworth taking away, can expect nothing but to have itfrom him, with every circumstance of tyrannical violence, byagents of a rapacious government, it is not likely that manyexert themselves to produce much more than necessaries. Thisthe acknowledged explanation of the poverty of many fertileof Asia, which were once prosperous and populous. Fromto the degree of security enjoyed in the best governed partsEurope, there are numerous gradations. In many provinces of, before the Revolution, a vicious system of taxation onland, and still more the absence of redress against theexactions which were made under colour of the taxes,it the interest of every cultivator to appear poor, andto cultivate badly. The only insecurity which isparalysing to the active energies of producers, isarising from the government, or from persons invested withauthority. Against all other depredators there is a hope ofoneself. Greece and the Greek colonies in the ancient. Flanders and Italy in the Middle Ages, by no means enjoyedany one with modern ideas would call security: the state ofwas most unsettled and turbulent; person and propertyexposed to a thousand dangers. But they were free countries;were in general neither arbitrarily oppressed, norplundered by their governments. Against otherthe individual energy which their institutions called, enabled them to make successful resistance: their labour,, was eminently productive, and their riches, while theyfree, were constantly on the increase. The Roman, putting an end to wars and internal conflictsthe empire, relieved the subject population from muchthe former insecurity. but because it left them under theyoke of its own rapacity, they became enervated and, until they were an easy prey to barbarous but free. They would neither fight nor labour, because they werelonger suffered to enjoy that for which they fought and.

Much of the security of person and property in modern nationsthe effect of manners and opinion rather than of law. There, or lately were, countries in Europe where the monarch wasabsolute, but where, from the restraints imposed byusage, no subject felt practically in the smallestof having his possessions arbitrarily seized or alevied on them by the government. There must,, be in such governments much petty plunder and otherby subordinate agents, for which redress is not obtained,to the want of publicity which is the ordinary character ofgovernments. In England the people are tolerably well, both by

institutions and manners, against the agentsgovernment; but, for the security they enjoy against otherdoers, they are very little indebted to their institutions.laws cannot be said to afford protection to property, whenafford it only at such a cost as renders submission toin general the better calculation. The security ofin England is owing (except as regards open violence) to, and the fear of exposure, much more than to the directof the law and the courts of justice.

Independently of all imperfection in the bulwarks whichpurposely throws round what it recognises as property,are various other modes in which defective institutionsthe employment of the productive resources of a country tobest advantage. We shall have occasion for noticing many ofin the progress of our subject. It is sufficient here to, that the efficiency of industry may be expected to be, in proportion as the fruits of industry are insured to theexerting it: and that all social arrangements areto useful exertion, according as they provide that theof every one for his labour shall be proportioned as muchpossible to the benefit which it produces. All laws or usagesfavour one class or sort of persons to the disadvantage of; which chain up the efforts of any part of the communitypursuit of their own good, or stand between those efforts andnatural fruits are (independently of all other grounds of) violations of the fundamental principles ofpolicy; tending to make the aggregate productiveof the community productive in a less degree than theyotherwise be.:. Some minor instances noticed by Mr. Babbage may be cited inillustration of the waste occasioned to society throughinability of its members to trust one another.

"The cost to the purchaser is the price he pays for any, added to the cost of verifying the fact of its havingdegree of goodness for which he contracts. In some cases,goodness of the article is evident on mere inspection; and incases there is not much difference of price at different. The goodness of loaf sugar,for instance, can be discernedat a glance; and the consequence is, that the price is so, and the profit upon it so small, that no grocer is atanxious to sell it; whilst on the other hand, tea, of whichis exceedingly difficult to judge, and which can beby mixture so as to deceive the skill even of aeye, has a great variety of different prices, and isarticle which every grocer is most anxious to sell to his. The difficulty and expense of verificaton are in someso great, as to justify the deviation fromestablished principles. Thus it is a general maxim thatcan purchase any article at a cheaper rate than thatwhich they can manufacture it themselves. But it has,, been considered more economical to build extensivemills (such as those at Deptford), and to grind their own, than to verify each sack of purchased flour, and to employin devising methods of detecting the new modes ofwhich might deprive a nation, such as the United, of a large export trade in flour.

Again: "Some years since, a mode of preparing old clover andseeds by a process called doctoring became so prevalentto excite the attention of the House of Commons. It appearedevidence before a Committee, that the old seed of the whitewas doctored by first wetting it slightly, and then dryingthe fumes of burning sulphur; and that the red clover seedits colour improved by shaking it in a sack with a smallof indigo; but this being detected after a time, thethen used a preparation of logwood, fined by a little, and sometimes by verdigris; thus at once improving theof the old seed,and diminishing, if not destroying,vegetative power, already enfeebled by age. Supposing nohad resulted to good seed so prepared, it was proved that,the improved appearance, the market price would be

enhancedthis process from five to twenty-five shillings aweight. But the greatest evil arose from the circumstancethese processes rendering old and worthless seed equal into the best. One witness had tried some doctored seed,found that not above one grain in a hundred grew, and thatwhich did vegetate died away afterwards; whilst aboutor ninety per cent of good seed usually grows. The seed sowas sold to retail dealers in the country, who of courseto purchase at the cheapest rate, and from them itinto the hands of farmers, neither of these classes beingof distinguishing the fraudulent from the genuine seed.cultivators in consequence diminished their consumption ofarticles, and others were obliged to pay a higher pricewho had skill to distinguish the mixed seed, and who hadand character to prevent them from dealing it."

The same writer states that Irish flax, though in naturalinferior to none, sells, or did lately sell, in theata penny to twopence per pound less than foreign orflax; part of the difference arising from negligence inpreparation, but part from the cause mentioned in theof Mr. Corry, many years Secretary to the Irish Linen: "The owners of the flax, who are almost always people inlower classes of life, believe that they can best advanceown interests by imposing on the buyers. Flax being sold by, various expedients are used to increase it; and everyis injurious, particularly the damping of it; a verypractice, which makes the flax afterwards heat. The insideevery bundle (and the bundles all vary in bulk) is often fullpeebles, or dirt of various kinds, to increase the weight. Instate it is purchased and exported to Great Britain."

It was given in evidence before a Committee of the House ofthat the lace trade at Nottingham had greatly fallen off,the making of fraudulent and bad articles: that "a kind ofcalled single-press was manufatured," (I still quote Mr.,) "which although good to the eye, became nearly spoiledwashing by the slipping of the threads; that not one person inthousand could distinguish the difference between single-pressdouble-press lace; that even workmen and manufacturers wereto employ a magnifying-glass for that purpose; and thatanother similar article, called warp-lace, such aid was."

The Principles of Political Economy

John Stuart Mill1,

Chapter 8

Co-operation, or the Combination of Labour

1. In the enumeration of the circumstances which promote theof labour, we have left one untouched, which,of its importance, and of the many topics of discussionit involves, requires to be treated apart. This is,operation, or the combined action of numbers. Of this greatto production, a single department, known by the name ofof Labour, has engaged a large share of the attention ofeconomists; most deservedly indeed, but to theof other cases and exemplifications of the samelaw. Mr. Wakefield was, I believe, the first toout, that a part of the subject had, with injurious effect,mistaken for the whole; that a more fundamental principlebeneath that of the division of labour, and comprehends it.

Co-operation, he observes,(1*) is "of two distinct kinds:, such co-operation as takes place when several persons helpother in the same employment; secondly, such co-operation asplace when several persons help each other in different. These may be termed Simple Co-operation and Complexoperation.

"The advantage of simple co-operation is illustrated by theof two greyhounds running together, which, it is said, willmore hares than four greyhounds running separately. In anumber of simple operations performed by human exertion, itquite obvious that two men working together will do more than, or four times four men, each of whom should work alone. Inlifting of heavy weights, for example, in the felling of, in the sawing of timber, in the gathering of much hay orduring a short period of fine weather, in draining a largeof land during the short season when such a work may beconducted, in the pulling of ropes on board ship, in theof large boats, in some mining operations, in the erectiona scaffolding for building, and in the breaking of stones forrepair of a road, so that the whole of the road shall alwayskept in good order: in all these simple operations, andmore, it is absolutely necessary that many personswork together, at the same time, in the same place, and insame way. The savages of New Holland never help each other,in the most simple operations; and their condition is hardly, in some respects it is inferior, to that of the wildwhich they now and then catch. Let any one imagine thatlabourers of England should suddenly desist from helping eachin simple employments, and he will see at once theadvantages of simple co-operation. In a countlessof employments, the produce of labour is, up to a certain, in proportion to such mutual assistance amongst the. This is the first step in social improvement." Theis, when "one body of men having combined their labour tomore food than they require, another body of men areto combine their labour for the purpose of producing morethan they require, and with those surplus clothes buyingsurplus food of the other body of labourers; while, if bothtogether have produced more food and clothes than theyrequire, both bodies obtain, by means of exchange, a properfor setting more labourers to work in their respective." To simple co-operation is thus superadded what Mr.terms Complex Co-operation. The one is the combinationseveral labourers to help each other in the same set of; the other is the combination of several labourers toone another by a division of operations.

There is "an important distinction between simple and complex. Of the former, one is always conscious at the timepractising it: it is obvious to the most ignorant and vulgar. Of the latter, but a very few of the vast numbers whoit are in any degree conscious. The cause of thisis easily seen. When several men are employed inthe same weight, or pulling the same rope, at the same, and in the same place, there can be no sort of doubt thatco-operate with each other; the fact is impressed on theby the mere sense of sight; but when several men, or bodiesmen, are employed at different times and places, and inpursuits, their co-operation with each other, though itbe quite as certain, is not so readily perceived as in thecase: in order to perceive it, a complex operation of theis required."(2*)

In the present state of society the breeding and feeding ofis the occupation of one set of people, dressing the woolprepare it for the spinner is that of another, spinning itthread of a third, weaving the thread into broadcloth of a, dyeing the cloth of a fifth, making it into a coat of a, without counting the multitude of carriers, merchants,, and retailers, put in requisition at the successiveof this progress. All these persons, without knowledge ofanother or previous understanding, co-operate in theof the ultimate result, a coat. But these are far fromall who co-operate in it; for each of these personsfood, and many other articles of consumption, and unlesscould have relied that other people would produce these for, he could not have devoted his whole time to one step in theof operations which produces one single commodity, a. Every person who took part in producing food or erectingfor this series of producers, has, however unconsciouslyhis part, combined his labour with theirs. It is by a real,unexpressed, concert, "that the body who raise more foodthey want, can exchange with the body who raise more clothesthey want; and if the two bodies were separated, either byor disinclination — unless the two bodies shouldform themselves into one, for the common object ofenough food and clothes for the whole — they could notinto two distinct parts the whole operation of producing aquantity of food and clothes."(3*)

2. The influence exercised on production by the separation of, is more fundamental than, from the mode in which theis usually treated, a reader might be induced to suppose.is not merely that when the production of different thingsthe sole or principal occupation of different persons, agreater quantity of each kind of article is produced. Theis much beyond this. Without some separation of, very few things would be produced at all.

Suppose a set of persons, or a number of families, allprecisely in the same manner; each family settled on aof its own land, on which it grows by its labour the foodfor its own sustenance, and as there are no persons toany surplus produce where all are producers, each family hasproduce within itself whatever other articles it consumes. Incircumstances, if the soil was tolerably fertile, anddid not tread too closely on the heels of subsistence,would be, no doubt, some kind of domestic manufactures;for the family might perhaps be spun and woven within, by the labour probably of the women (a first step in theof employments); and a dwelling of some sort would beand kept in repair by their united labour. But beyondfood (precarious, too, from the variations of the), coarse clothing, and very imperfect lodging, it wouldscarcely possible that the family should produce anything. They would, in general, require their utmost exertions toso much. Their power even of extracting food from thewould be kept within narrow limits by the quality

of their, which would necessarily be of the most wretched. To do almost anything in the way of producing forarticles of convenience or luxury, would require tootime, and, in many cases, their presence in a different. Very few kinds of industry, therefore, would exist; andwhich did exist, namely the production of necessaries, wouldextremely inefficient, not solely from imperfect implements,because, when the ground and the domestic industry fed by itbeen made to supply the necessaries of a single family inabundance, there would be little motive, while theof the family remained the same, to make either the landthe labour produce more.

But suppose an event to occur, which would amount to ain the circumstances of this little settlement.that a company of artificers, provided with tools, andfood sufficient to maintain them for a year, arrive in theand establish themselves in the midst of the population.new settlers occupy themselves in producing articles of useornament adapted to the taste of a simple people; and beforefood is exhausted they have produced these in considerable, and are ready to exchange them for more food. Theposition of the landed population is now mostaltered. They have an opportunity given them ofcomforts and luxuries. Things which, while theysolely on their own labour, they never could have, because they could not have produced, are nowto them if they can succeed in producing an additionalof food and necessaries. They are thus incited tothe productiveness of their industry. Among thefor the first time made accessible to them, betterare probably one: and apart from this, they have a motivelabour more assiduously, and to adopt contrivances for makinglabour more effectual. By these means they will generallyin compelling their land to produce, not only food for, but a surplus for the new comers, wherewith to buythem the products of their industry. The new settlerswhat is called a market for surplus agricultural: and their arrival has enriched the settlement not onlythe manufactured article which they produce, but by the foodwould not have been produced unless they had been there toit.

There is no inconsistency between this doctrine, and thewe before maintained, that a market for commoditiesnot constitute employment for labour.(4*) The labour of thewas already provided with employment; they are notto the demand of the new comers for being able tothemselves. What that demand does for them is, to calllabour into increased vigour and efficiency; to stimulate, by new motives, to new exertions. Neither do the new comerstheir maintenance and employment to the demand of the: with a year's subsistence in store, they couldsettled side by side with the former inhabitants, anda similar scanty stock of food and necessaries.we see of what supreme importance to theof the labour of producers, is the existence ofproducers within reach, employed in a different kind of. The power of exchanging the products of one kind offor those of another, is a condition, but for which, therealmost always be a smaller quantity of labour altogether.a new market is opened for any product of industry, and aquantity of the article is consequently produced, theproduction is not always obtained at the expense ofother product; it is often a new creation, the result ofwhich would otherwise have remained unexerted; or ofrendered to labour by improvements or by modes ofoperation to which recourse would not have been had if anhad not been offered for raising a larger produce.

3. From these considerations it appears that a country willhave a productive agriculture, unless it has a large town, or the only available substitute, a large exportin agricultural produce to supply a population elsewhere. Ithe phrase town population for

shortness, to imply anon-agricultural; which will generally be collected inor large villages, for the sake of combination of labour.application of this truth by Mr. Wakefield to the theory of, has excited much attention, and is doubtlessto excite much more. It is one of those great practical, which, once made, appears so obvious that the meritmaking them seems less than it is. Mr. Wakefield was the firstpoint out that the mode of planting new settlements, thenpractised — setting down a number of families side by, each on its piece of land, all employing themselves inthe same manner, — though in favourable circumstances itassure to those families a rude abundance of mere, can never be other than unfavourable to greator rapid growth: and his system consists offor securing that every colony shall have from thea town population bearing due proportion to its, and that the cultivators of the soil shall not bewidely scattered as to be deprived by distance, of the benefitthat town population as a market for their produce. TheOn which the scheme is founded, does not depend on anyrespecting the superior productiveness of land held inportions, and cultivated by hired labour. Supposing it trueland yields the greatest produce when divided into smalland cultivated by peasant proprietors, a townwill be just as necessary to induce those proprietorsraise that larger produce: and if they were too far from theseat of nonagricultural industry to use it as a marketdisposing of their surplus, and thereby supplying their other, neither that surplus nor any equivalent for it would,speaking, be produced.

It is, above all, the deficiency of town population whichthe productiveness of the industry of a country like. The agriculture of India is conducted entirely on theof small holdings. There is, however, a considerableof combination of labour. The village institutions and, which are the real framework of Indian society, makefor joint action in the cases in which it is seen to be; or where they fail to do so, the government (whenwell administered) steps in, and by an outlay from the, executes by combined labour the tanks, embankments, andof irrigation, which are indispensable. The implements andof agriculture are however so wretched, that theof the soil, in spite of great natural fertility and ahighly favourable to vegetation, is miserably small: andland might be made to yield food in abundance for many morethe present number of inhabitants, without departing fromsystem of small holdings. But to this the stimulus is, which a large town population, connected with the ruralby easy and unexpensive means of communication, would. That town population, again, does not grow up, becausefew wants and unaspiring spirit of the cultivators (joinedlately with great insecurity of property, from military andrapacity) prevent them from attempting to become consumerstown produce. In these circumstances the best chance of andevelopment of the productive resources of India, consiststhe rapid growth of its export of agricultural produce(cotton, indigo, sugar, coffee, &c.) to the markets of Europe.producers of these articles are consumers of food supplied byfellow — agriculturists in India; and the market thusfor surplus food will, if accompanied by good government,up by degrees more extended wants and desires, directedtowards European commodities, or towards things which willfor their production in India a larger manufacturing.

4. Thus far of the separation of employments, a form of theof labour without which there cannot be the firstof industrial civilization. But when this separation isestablished; when it has become the general practiceeach producer to supply many others

with one commodity, andbe supplied by others with most of the things which he; reasons not less real, though less imperative, invitea further extension of the same principle. It is found thatproductive power of labour is increased by carrying thefurther and further; by breaking down more and moreprocess of industry into parts, so that each labourer shallhimself to an ever smaller number of simple operations.thus, in time, arise those remarkable cases of what is calleddivision of labour, with which all readers on subjects ofnature are familiar. Adam Smith's illustration frommaking, though so well known, is so much to the point, that Iventure once more to transcribe it. "The business of makingpin is divided into about eighteen distinct operations. One manout the wire, another straights it, a third cuts it, apoints it, a fifth grinds it at the top for receiving the; to make the head requires two or three distinct operations;put it on, is a peculiar business; to whiten the pins is; it is even a trade by itself to put them into the..... I have seen a small manufactory where ten men onlyemployed, and where some of them, consequently, performedor three distinct operations. But though they were very poor,therefore but indifferently accommodated with the necessary, they could, when they exerted themselves, make amongabout twelve pounds of pins in a day. There are in a poundof four thousand pins of a middling size. Those ten, therefore, could make among them upwards of forty-eightpins in a day. Each person, therefore, making a tenthof forty-eight thousand pins, might be considered as makingthousand eight hundred pins in a day. But if they had allseparately and independently, and without any of thembeen educated to this peculiar business, they certainlynot each of them have made twenty, perhaps not one pin in a."(5*)

M. Say furnishes a still stronger example of the effects ofof labour — from a not very important branch ofcertainly, the manufacture of playing cards. "It is saidthose engaged in the business, that each card, that is, aof pasteboard of the size of the hand, before being readysale, does not undergo fewer than seventy operations,(6*)one of which might be the occupation of a distinct class of. And if there are not seventy classes of work-people incard manufactory, it is because the division of labour iscarried so far as it might be; because the same workman iswith two, three, or four distinct operations. Theof this distribution of employment is immense. I havea card manufactory where thirty workmen produced dailythousand five hundred cards, being above five hundredfor each labourer; and it may be presumed that if each ofworkmen were obliged to perform all the operations himself,supposing him a practised hand, he would not perhapstwo cards in a day. and the thirty workmen, instead ofthousand five hundred cards, would make only sixty."(7*)

In watchmaking, as Mr. Babbage observes, "it was stated inbefore a Committee of the House of Commons, that therea hundred and two distinct branches of this art, to each ofa boy may be put apprentice; and that he only learns his's department, and is unable, after his apprenticeship has, without subsequent instruction, to work at any other. The watch-finisher, whose business it is to put togetherscattered parts, is the only one, out of the hundred and two, who can work in any other department than his own."(8*)

5. The causes of the increased efficiency given to labour bydivision of employments are some of them too familiar tospecification; but it is worth while to attempt aenumeration of them. By Adam Smith they are reduced to. "First, the increase of dexterity in every particular; secondly, the saving of the time which is commonly

lostpassing from one species of work to another. and lastly, theof a great number of machines which facilitate andlabour, and enable one man to do the work of many."(9*)

Of these, the increase of dexterity of the individual workmanthe most obvious and universal. It does not follow thata thing has been done oftener it will be done better.depends on the intelligence of the workman, and on thein which his mind works along with his hands. But it willdone more easily. The organs themselves acquire greater power:muscles employed grow stronger by frequent exercise, themore pliant, and the mental powers more efficient, andsensible of fatigue. What can be done easily has at least achance of being done well, and is sure to be done more. What was at first done slowly comes to be done; what was at first done slowly with accuracy is at lastquickly with equal accuracy. This is as true of mentalas of bodily. Even a child, after much practice, sumsa column of figures with a rapidity which resembles intuition.act of speaking any language, of reading fluently, of playingat sight, are cases as remarkable as they are familiar.bodily acts, dancing, gymnastic exercises, ease andof execution on a musical instrument, are examples ofrapidity and facility acquired by repetition. In simpleroperations the effect is of course still sooner produced."The rapidity," Adam Smith observes, "with which some of theof certain manufactures are performed, exceeds whathuman hand could, by those who had never seen them, becapable of acquiring."(10*) This skill is, naturally,after shorter practice, in proportion as the division ofis more minute; and will not be attained in the sameat all, if the workman has a greater variety of operationsexecute than allows of a sufficiently frequent repetition of. The advantage is not confined to the greater efficiencyattained, but includes also the diminished loss of, and waste of material, in learning the art. "A certainof material," says Mr. Babbage,(11*) "will in all casesconsumed unprofitably, or spoiled, by every person who learnsart; and as he applies himself to each new process, he willsome of the raw material, or of the partly manufactured. But if each man commit this waste in acquiringevery process, the quantity of waste will be muchthan if each person confine his attention to one." And in general each will be much sooner qualified tohis one process, if he be not distracted while learning, by the necessity of learning others.

The second advantage enumerated by Adam Smith as arising fromdivision of labour, is one on which I cannot help thinkingmore stress is laid by him and others than it deserves. Tofull justice to his opinion, I will quote his own expositionit. "The advantage which is gained by saving the time commonlyin passing from one sort of work to another, is much greaterwe should at first view be apt to imagine it. It isto pass very quickly from one kind of work to another,is carried on in a different place, and with quite different. A country weaver, who cultivates a small farm, must lose adeal of time in passing from his loom to the field, and fromfield to his loom. When the two trades can be carried on insame workhouse, the loss of time is no doubt much less. It isin this case, however, very considerable. A man commonlya little in turning his hand from one sort of employmentanother. When he first begins the new work, he is seldom veryand hearty; his mind, as they say, does not go to it, andsome time he rather trifles than applies to good purpose. Theof sauntering and of indolent careless application, whichnaturally, or rather necessarily acquired by every countrywho is obliged to change his work and his tools everyhour, and to apply his hand in twenty different ways almostday of his life, renders

him almost always slothful and, and incapable of any vigorous application even on the mostoccasions."(12*) This is surely a most exaggeratedof the inefficiency of country labour, where it hasadequate motive to exertion. Few workmen change their worktheir tools oftener than a gardener; is he usually incapablevigorous application? Many of the higher description ofhave to perform a great multiplicity of operations withvariety of tools. They do not execute each of these with thewith which a factory workman performs his single; but they are, except in a merely manual sense, morelabourers, and in all senses whatever more energetic.

Mr. Babbage, following in the track of Adam Smith, says,"When the human hand, or the human head, has been for some timein any kind of work, it cannot instantly change itswith full effect. The muscles of the limbs employedacquired a flexibility during their exertion, and those notaction a stiffness during rest, which renders every changeand unequal in the commencement. Long habit also produces inmuscles exercised a capacity for enduring fatigue to a muchdegree than they could support under other circumstances.similar result seems to take place in any change of mental; the attention bestowed on the new subject not being soat first as it becomes after some exercise. Theof different tools in the successive processes, iscause of the loss of time in changing from one operationanother. If these tools are simple, and the change is not, the loss of time is not considerable; but in manyof the arts, the tools are of great delicacy, requiringadjustment every time they are used; and in many cases,time employed in adjusting bears a large proportion to thatin using the tool. The sliding-rest, the dividing anddrilling engine are of this kind: and hence, in manufactoriessufficient extent, it is found to be good economy to keep oneconstantly employed in one kind of work: one lathe, for, having a screw motion to its sliding-rest along thelength of its bed, is kept constantly making cylinders;, having a motion for equalizing the velocity of the workthe point at which it passes the tool, is kept for facing; whilst a third is constantly employed in cutting."

I am very far from implying that these differentare of no weight; but I think there areconsiderations which are overlooked. If one kind ofor mental labour is different from another, for thatreason it is to some extent a rest from that other. and ifgreatest vigour is not at once obtained in the second, neither could the first have been indefinitelywithout some relaxation of energy. It is a matter ofexperience that a change of occupation will often affordwhere complete repose would otherwise be necessary, anda person can work many more hours without fatigue at aof occupations, than if confined during the whole timeone. Different occupations employ different muscles, orenergies of the mind, some of which rest and arewhile others work. Bodily labour itself rests from, and conversely. The variety itself has an invigoratingon what, for want of a more philosophical appellation, weterm the animal spirits; so important to the efficiency ofwork not mechanical, and not unimportant even to that. Theweight due to these considerations is different withindividuals; some are more fitted than others forin one occupation, and less fit for change; theylonger to get the steam up (to use a metaphor now); the irksomeness of setting to work lasts longer, and itmore time to bring their faculties into full play, andwhen this is once done, they do not like to leave off,go on long without intermission, even to the injury of their. Temperament has something to do with these differences.are people whose faculties seem by nature to come slowlyaction, and to accomplish little until they have

been a longemployed. Others, again, get into action rapidly, but, without exhaustion, continue long. In this, however, asmost other things, though natural differences are something,is much more. The habit of passing rapidly from oneto another may be acquired, like other habits, bycultivation; and when it is acquired, there is none of thewhich Adam Smith speaks of, after each change; no wantenergy and interest, but the workman comes to each part of hiswith a freshness and a spirit which he does not retainhe persists in any one part (unless in case of unusual) beyond the length of time to which he is accustomed.are usually (at least in their present social) of far greater versatility than men; and thetopic is an instance among multitudes, how little theand experience of women have yet counted for, in formingopinions of mankind. There are few women who would not rejectidea that work is made vigorous by being protracted, and isfor some time after changing to a new thing. Even incase, habit, I believe, much more than nature, is the causethe difference. The occupations of nine out of every ten menspecial, those of nine out of every ten women general,a multitude of details, each of which requires verytime. Women are in the constant practice of passingfrom one manual, and still more from one mental operationanother, which therefore rarely costs them either effort orof time, while a man's occupation generally consists insteadily for a long time at one thing, or one veryclass of things. But the situations are sometimes, and with them the characters. Women are not found lessthan men for the uniformity of factory work, or theynot so generally be employed for it; and a man who hasthe habit of turning his hand to many things, far fromthe slothful and lazy person described by Adam Smith, isremarkably lively and active. It is true, however, thatof occupation may be too frequent even for the most. Incessant variety is even more fatiguing thansameness.

The third advantage attributed by Adam Smith to the divisionlabour, is, to a certain extent, real. Inventions tending tolabour in a particular operation, are more likely to occurany one in proportion as his thoughts are intensely directedthat occupation, and continually employed upon it. A person isso likely to make practical improvements in one department of, whose attention is very much diverted to others. But, in, much more depends on general intelligence and habitualof mind, than on exclusiveness of occupation; and ifexclusiveness is carried to a degree unfavourable to theof intelligence, there will be more lost in this kindadvantage, than gained. We may add, that whatever may be theof making inventions, when they are once made, theefficiency of labour is owing to the invention itself,not to the division of labour.

The greatest advantage (next to the dexterity of the workmen)from the minute division of labour which takes place inmanufacturing industry, is one not mentioned by Adam, but to which attention has been drawn by Mr. Babbage; theeconomical distribution of labour, by classing thepeople according to their capacity. Different parts of theseries of operations require unequal degrees of skill andstrength; and those who have skill enough for the most, or strength enough for the hardest parts of the, are made much more useful by being employed solely in; the operations which everybody is capable of, being left towho are fit for no others. Production is most efficientthe precise quantity of skill and strength, which isfor each part of the process, is employed in it, and no. The operation of pin-making requires, it seems, in itsparts, such different degrees of skill, that the wagesby the persons employed vary from fourpence halfpenny ato six shillings; and if the workman

who is paid at thatrate had to perform the whole process, he would bea part of his time with a waste per day equivalent to thebetween six shillings and fourpence halfpenny. Withoutto the loss sustained in quantity of work done, andeven that he could make a pound of pins in the samein which ten workmen combining their labour can make ten, Mr. Babbage computes that they would cost, in making,times and three-quarters as much as they now do by means ofdivision of labour. In needlemaking, he adds, the differencebe still greater, for in that, the scale of remunerationdifferent parts of the process varies from sixpence to twentya day.

To the advantage which consists in extracting the greatestamount of utility from skill, may be added the analogous, of extracting the utmost possible utility from tools. "Ifman," says an able writer,(13*) "had all the tools which manyoccupations require, at least three-fourths of themconstantly be idle and useless. It were clearly then, were any society to exist where each man had all these, and alternately carried on each of these occupations, thatmembers of it should, if possible, divide them amongst them,restricting himself to some particular employment. Theof the change to the whole community, and therefore toindividual in it, are great. In the first place, theimplements being in constant employment, yield a betterfor what has been laid out in procuring them. Intheir owners can afford to have them of betterand more complete construction. The result of both events, that a larger provision is made for the future wants of thesociety."

6. The division of labour, as all writers on the subject have, is limited by the extent of the market. If, by theof pin-making into ten distinct employments,eight thousand pins can be made in a day, this separationonly be advisable if the number of accessible consumers isas to require, every day, something like forty-eightpins. If there is only a demand for twenty-four, the division of labour can only be advantageouslyto the extent which will every day produce that smaller. This, therefore, is a further mode in which an accessiondemand for a commodity tends to increase the efficiency of theemployed in its production. The extent of the market maylimited by several causes: too small a population; thetoo scattered and distant to be easily accessible;of roads and water carriage; or, finally, thetoo poor, that is, their collective labour too little, to admit of their being large consumers. Indolence,of skill, and want of combination of labour, among those whootherwise be buyers of a commodity, limit, therefore, theamount of combination of labour among its producers. Inearly stage of civilization, when the demand of any particularwas necessarily small, industry only flourished amongwho by their command of the sea-coast or of a navigable, could have the whole world, or all that part of it whichon coasts or navigable rivers, as a market for their. The increase of the general riches of the world,accompanied with freedom of commercial intercourse,in navigation, and inland communication by roads,, or railways, tends to give increased productiveness tolabour of every nation in particular, by enabling eachto supply with its special products so much larger a, that a great extension of the division of labour in theiris an ordinary consequence.

The division of labour is also limited, in many cases, by theof the employment. Agriculture, for example, is notof so great a division of occupations as manyof manufactures, because its different operations cannotbe simultaneous. One man cannot be always ploughing,sowing, and another reaping. A workman who only practisedagricultural operation would he idle eleven months of the. The same person may perform them all in

succession, and, in most climates, a considerable amount of unoccupied time.execute a great agricultural improvement, it is oftenthat many labourers should work together; but in, except the few whose business is superintendence, theywork in the same manner. A canal or a railway embankmenthe made without a combination of many labourers; but theyall excavators, except the engineers and a few clerks.:. Note to Wakefield's edition of Adam Smith, vol. i. p. 26.. Wealth of Nations, ed. Wakefield, I, 30.. Wealth of Nations, ed. Wakefield, I, 29.. Supra, pp. 78-88.. Wealth of Nations, ed. Wakefield, I, 8.. "Ce ne sont point les memes ouvriers qui preparent le papieron fait les cartes, ni les couleurs dont on les empreint; etne fesant attention qu'au seul emploi de ces matieres, nousqu'un jeu de cartes est le resultat de plusiersdont chacune occupe une serie distincte d'ouvriers et'ouvrieres qui s'appliquent toujours a la meme opeation. Ce sontpersonnes differentes, et toujours les memes, qui epluchentbouchons et grosseurs qui se trouvent dans le papier eta l'egalite d'epaisseur; les memes qui collent ensembletrois feuilles de papier dont se compose le carton et qui leen presse; les memes qui impriment en noir le dessin des; d'autres ouvriers impriment les couleurs des memes; d'autres font secher au rechaud les cartons une fois'ils sont imprimes; d'autres s'occupent de les lisser dessus et. C'est une occupation particuliere que de les couper'egale dimension; c'en est une autre de les assembler pour endes jeux; une autre encore d'imprimer les enveloppes des, et une autre encore de les envelopper; sans compter lesdes personnes chargees des ventes et des achats, deles ouvriers et de tenir les ecritures." — Say, Cours'Economie Politique, vol. i, p. 340.

It is remarkable proof of the economy of labour occasioned byminute division of occupations, that an article, theof which is the result of such a multitude of manual, can be sold for a trifling sum.. Ibid, I, p. 341.. Economy of Machinery and Manufactures, 3rd Edition, p. 201.. Wealth of Nations, ed. Wakefield, I, 12-13.. "In astronomical observations, the senses of the operator areso acute by habit, that he can estimate differences ofto the tenth of a second; and adjust his measuringto graduations of which five thousand occupy only an. It is the same throughout the commonest processes of. A child who fastens on the heads of pins will repeatoperation requiring several distinct motions of the muscleshundred times a minute for several successive hours. In aManchester paper it was stated tahat a peculiar sort ofor 'gimp', which cost three shillings making when first, was now manufactured for one penny; and this not, as, by the invention of a new machine, but solely throughincreased dexterity of the workman." Edinburgh Review for1840, p. 81.. Page 171.. Wealth of Nations, ed. Wakefield, I, 14-15.. Statement of some New Principles on the subject of Political, by John Rae, p. 164.

The Principles of Political Economy

John Stuart Mill1,

Chapter 9

Production on a Large, and Production on a Small Scale

1. From the importance of combination of labour, it is anconclusion, that there are many cases in which productionmade much more effective by being conducted on a large scale.it is essential to the greatest efficiency of labourmany labourers should combine, even though only in the waySimple Co-operation, the scale of the enterprise must be suchto bring many labourers together, and the capital must beenough to maintain them. Still more needful is this whennature of the employment allows, and the extent of themarket encourages, a considerable division of labour.larger the enterprise, the farther the division of labour maycarried. This is one of the principal causes of large. Even when no additional subdivision of the workfollow an enlargement of the operations, there will be goodin enlarging them to the point at which every person toit is convenient to assign a special occupation, will haveemployment in that occupation. This point is wellby Mr. Babbage.(1*)

"If machines be kept working through the twenty-four hours,"(which is evidently the only economical mode of employing them,)"it is necessary that some person shall attend to admit theat the time they relieve each other; and whether theor other person so employed admit one person or twenty,rest will be equally disturbed. It will also be necessaryto adjust or repair the machine; and this can bemuch better by a workman accustomed to machine-making, thanthe person who uses it. Now, since the good performance andduration of machines depend, to a very great extent, uponevery shake or imperfection in their parts as soon asappear, the prompt attention of a workman resident on thewill considerably reduce the expenditure arising from theand tear of the machinery. But in the case of a singleframe, or a single loom, this would be too expensive a plan.then arises another circumstance which tends to enlarge theof a factory. It ought to consist of such a number ofas shall occupy the whole time of one workman in keepingin order: if extended beyond that number, the same principleeconomy would point out the necessity of doubling or triplingnumber of machines, in order to employ the whole time of twothree skilful workmen.

"When one portion of the workman's labour consists in theof mere physical force, as in weaving, and in manyarts, it will soon occur to the manufacturer, that ifpart were executed by a steam engine, the same man might, incase of weaving, attend to two or more looms at once: and,we already suppose that one or more operative engineersbeen employed, the number of looms may be so arranged thattime shall be fully occupied in keeping the steam-enginethe looms in order.

"Pursuing the same principles, the manufactory becomesso enlarged, that the expense of lighting during theamounts to a considerable sum : and as there are alreadyto the establishment persons who are up all night, andtherefore constantly attend to it, and also engineers to makekeep in repair any machinery, the addition of an apparatusmaking gas to light the factory leads to a new extension, atsame time that it contributes, by

diminishing the expense of, and the risk of accidents from fire, to reduce the costmanufacturing.

"Long before a factory has reached this extent, it will havefound necessary to establish an accountant's department,clerks to pay the workmen, and to see that they arrive atstated times; and this department must be in communicationthe agents who purchase the raw produce, and with those whothe manufactured article." It will cost these clerks andlittle more time and trouble to pay a large number ofthan a small number; to check the accounts of large, than of small. If the business doubled itself, itprobably be necessary to increase, but certainly not to, the number either of accountants, or of buying andagents. Every increase of business would enable the wholebe caRed on with a proportionately smaller amount of labour.

As a general rule, the expenses of a business do not increaseany means proportionally to the quantity of business. Let usas an example, a set of operations which we are accustomedsee carried on by one great establishment, that of the Post. Suppose that the business, let us say only of the Londonpost, instead of being centralized in a single concern,divided among five or six competing companies. Each of thesebe obliged to maintain almost as large an establishment asnow sufficient for the whole. Since each must arrange forand delivering letters in all parts of the town, eachsend letter-carriers into every street, and almost every, and this too as many times in the day as is now done byPost Office, if the service is to be as well performed. Eachhave an office for receiving letters in every neighbourhood,all subsidiary arrangements for collecting the letters fromdifferent offices and re-distributing them. To this must bethe much greater number of superior officers who would beto check and control the subordinates, implying not onlygreater cost in salaries for such responsible officers, but the, perhaps, of being satisfied in many instances with anstandard of qualification, and so failing in the object.

Whether or not the advantages obtained by operating on ascale preponderate in any particular case over the moreattention, and greater regard to minor gains and losses,found in small establishments, can be ascertained, in aof free competition, by an unfailing test. Wherever therelarge and small establishments in the same business, that onethe two which in existing circumstances carries on theat greatest advantage will be able to undersell the. The power of permanently underselling can only, generally, be derived from increased effectiveness of labour; and, when obtained by a more extended division of employment, ora classification tending to a better economy of skill, alwaysa greater produce from the same labour, and not merelysame produce from less labour: it increases not the surplus, but the gross produce of industry. If an increased quantitythe particular article is not required, and part of thein consequence lose their employment, the capital whichand employed them is also set at liberty; and theproduce of the country is increased by some otherof their labour.

Another of the causes of large manufactories, however, is theof processes requiring expensive machinery.machinery supposes a large capital; and is not resortedexcept with the intention of producing, and the hope of, as much of the article as comes up to the full powers ofmachine. For both these reasons, wherever costly machinery is, the large system of production is inevitable. But the powerunderselling is not in this case so unerring a test as in the, of the beneficial effect on the total production of the. The

power of underselling does not depend on theincrease of produce, but on its bearing an increasedto the expenses; which, as was shown in a former,(2*) it may do, consistently with even a diminution ofgross annual produce. By the adoption of machinery, acapital, which was perpetually consumed and, has been converted into a fixed capital, requiringa small annual expense to keep it up: and a much smallerwill suffice for merely covering that expense, andthe remaining circulating capital of the producer. Thetherefore might answer perfectly well to the, and enable him to undersell his competitors, thougheffect on the production of the country might be not anbut a diminution. It is true, the article will be sold, and therefore, of that single article, there willbe not a smaller, but a greater quantity sold; since theto the community collectively has fallen upon thepeople, and they are not the principal customers, ifat all, of most branches of manufacture. But thoughparticular branch of industry may extend itself, it will bereplenishing its diminished circulating capital from that ofcommunity generally; and if the labourers employed in thatescape loss of employment, it is because the loss willitself over the labouring people at large. If any of themreduced to the condition of unproductive labourers, supportedvoluntary or legal charity, the gross produce of the countryto that extent permanently diminished, until the ordinaryof accumulation makes it up; but if the condition of theclasses enables them to bear a temporary reduction of, and the superseded labourers become absorbed in other, their labour is still productive, and the breach ingross produce of the COmmunity is repaired, though not theto the labourers. I have restated this exposition,has already been made in a former place, to impress morethe truth, that a mode of production does not ofincrease the productive effect of the collective laboura community, because it enables a particular commodity to becheaper. The one consequence generally accompanies the, but not necessarily. I will not here repeat the reasons Igave, nor anticipate those which will be given morehereafter, for deeming the exception to be rather a casepossible, than one which is frequently realized in.

A considerable part of the saving of labour effected bythe large system of production for the small, is thein the labour of the capitalists themselves. If a hundredwith small capitals carry on separately the same, the superintendence of each concern will probablythe whole attention of the person conducting it,at least to hinder his time or thoughts from beingfor anything else: while a single manufacturera capital equal to the sum of theirs, with ten or aclerks, could conduct the whole of their amount of, and have leisure too for other occupations. The small, it is true, generally combines with the business ofsome portion of the details, which the other leaves tosubordinates: the small farmer follows his own plough, thetradesman serves in his own shop, the small weaver pliesown loom. But in this very union of functions there is, in aproportion of cases, a want of economy. The principal inconcern is either wasting, in the routine of a business,suitable for the direction of it, or he is only fit forformer, and then the latter will be ill done. I must observe,, that I do not attach, to this saving of labour, theoften ascribed to it. There is undoubtedly much moreexpended in the superintendence of many small capitalsin that of one large capital. For this labour however theproducers have generally a full compensation, in theof being their own masters, and not servants of an. It may be said, that if they value this independencewill submit to pay a price for it, and to sell at therates occasioned by the competition of the great dealermanufacturer. But they cannot always do this and continue toa living. They thus gradually disappear from society. Afterconsumed

their little capital in prolonging thestruggle, they either sink into the condition oflabourers, or become dependent on others for support.

2. Production on a large scale is greatly promoted by theof forming a large capital by the combination of manycontributions; or, in other words, by the formation ofstock companies. The advantages of the joint stockare numerous and important.

In the first place, many undertakings require an amount ofbeyond the means of the richest individual or private. No individual could have made a railway from LondonLiverpool; it is doubtful if any individual could even worktraffic on it, now when it is made. The government indeedhave done both; and in countries where the practice ofoperation is only in the earlier stages of its growth, thecan alone be looked to for any of the works for whichgreat combination of means is requisite; because it can obtainmeans by compulsory taxation, and is already accustomed toconduct of large operations. For reasons, however, which arewell known, and of which we shall treat fully, government agency for the conduct of industrialis generally one of the least eligible of resources,any other is available.

Next, there are undertakings which individuals are notincapable of performing, but which they cannot performthe scale and with the continuity which are ever more and moreby the exigencies of a society in an advancing state.are quite capable of despatching ships from Englandany or every part of the world, to carry passengers and; the thing was done before joint stock companies for thewere heard of. But when, from the increase of populationtransactions, as well as of means of payment, the public willlonger content themselves with occasional opportunities, butthe certainty that packets shall start regularly, forplaces once or even twice a day, for others once a week, forthat a steam ship of great size and expensive constructiondepart on fixed days twice in each month, it is evidentto afford an assurance of keeping up with punctuality such aof costly operations, requires a much larger capital and alarger staff of qualified subordinates than can be commandedan individual capitalist. There are other cases, again, inthough the business might be perfectly well transacted withor moderate capitals, the guarantee of a great subscribedis necessary or desirable as a security to the public forfulfilment of pecuniary engagements. This is especially thewhen the nature of the business requires that numbers ofshould be willing to trust the concern with their money:in the business of banking, and that of insurance: to both ofthe joint stock principle is eminently adapted. It is anof the folly and jobbery of the rulers of mankind, thata late period the joint stock principle, as a general, was in this country interdicted by law to these two modesbusiness; to banking altogether, and to insurance in theof sea risks; in order to bestow a lucrative monopolyparticular establishments which the government was pleasedto license, namely the Bank of England, and twocompanies, the London and the Royal Exchange.

Another advantage of joint stock or associated management, isincident of publicity. This is not an invariable, but it is aconsequence of the joint stock principle, and might be,in some important cases it already is, compulsory. In banking,, and other businesses which depend wholly on, publicity is a still more important element ofthan a large subscribed capital. A heavy loss occurringa private bank may be kept secret; even though it were of suchas to cause the ruin of the concern, the banker maycarry it on for years, trying to retrieve its position,to fall in the end with a greater crash: but this cannot

sohappen in the case of a joint stock company, whoseare published periodically. The accounts, even if, still exercise some check; and the suspicions of, breaking out at the general meetings, put theon their guard.

These are some of the advantages of joint stock overmanagement. But if we look to the other side of the, we shall find that individual management has also veryadvantages over joint stock. The chief of these is the muchinterest of the managers in the success of the.

The administration of a joint stock association is, in the, administration by hired servants. Even the committee, orof directors, who are supposed to superintend the, and who do really appoint and remove the managers,no pecuniary interest in the good working of the concernthe shares they individually hold, which are always a verypart of the capital of the association, and in general butsmall part of the fortunes of the directors themselves; and thethey take in the management usually divides their time withother occupations, of as great or greater importance toown interest; the business being the principal concern ofone except those who are hired to carry it on. But experience, and proverbs, the expression of popular experience,, how inferior is the quality of hired servants, comparedthe ministration of those personally interested in the work,how indispensable, when hired service must be employed, is"the master's eye" to watch over it.

The successful conduct of an industrial enterprise requiresquite distinct qualifications: fidelity, and zeal. Theof the hired managers of a concern it is possible to. When their work admits of being reduced to a definite setrules, the violation of these is a matter on which conscienceeasily blind itself, and on which responsibility may beby the loss of employment. But to carry on a greatsuccessfully, requires a hundred things which, as theybe defined beforehand, it is impossible to convert intoand positive obligations. First and principally, itthat the directing mind should be incessantly occupiedthe subject; should be continually laying schemes by whichprofit may be obtained, or expense saved. This intensityinterest in the subject it is seldom to be expected that anyshould feel, who is conducting a business as the hiredand for the profit of another. There are experiments inaffairs which are conclusive on the point. Look at theclass of rulers, and ministers of state. The work they arewith, is among the most interesting and exciting of all; the personal share which they themselves reap of thebenefits or misfortunes which befall the state underrule, is far from trifling, and the rewards and punishmentsthey may expect from public estimation are of the plain andkind which are most keenly felt and most widely. Yet how rare a thing is it to find a statesman inmental indolence is not stronger than all these inducements.infinitesimal is the proportion who trouble themselves to, or even to attend to, plans of public improvement, unlessit is made still more troublesome to them to remain; or who have any other real desire than that of rubbing, so as to escape general blame. On a smaller scale, all whoever employed hired labour have had ample experience of themade to give as little labour in exchange for the wages,is compatible with not being turned off. The universal neglectdomestic servants of their employer's interests, whereverare not protected by some fixed rule, is matter of common; unless where long continuance in the same service, andgood offices, have produced either personal, or some feeling of a common interest.

Another of the disadvantages of joint stock concerns, whichin some degree common to all concerns on a large scale, isof small gains and small savings. In the management ofgreat capital and great transactions, especially when thehave not much interest in it of their own, small sumsapt to be counted for next to nothing; they never seem worthcare and trouble which it costs to attend to them, and theof liberality and openhandedness is cheaply bought by aof such trifling considerations. But small profits andexpenses often repeated, amount to great gains and losses:of this a large capitalist is often a sufficiently goodto be practically aware; and to arrange his businessa system, which if enforced by a sufficiently vigilant, precludes the possibility of the habitual waste,incident to a great business. But the managers of astock concern seldom devote themselves sufficiently to the, to enforce unremittingly, even if introduced, through everyof the business, a really economical system.

From considerations of this nature, Adam Smith was led toas a principle, that joint stock companies could neverexpected to maintain themselves without an exclusive, except in branches of business which, like banking,, and some others, admit of being, in a considerable, reduced to fixed rules. This, however, is one of thosestatements of a true principle, often met with in Adam. In his days there were few instances of joint stockwhich had been permanently successful without a, except the class of cases which he referred to; buthis time there have been many; and the regular increaseof the spirit of combination and of the ability to combine,doubtless produce many more. Adam Smith fixed histoo exclusively on the superior energy and moreattention brought to a business in which the wholeand the whole gain belong to the persons conducting it; andoverlooked various countervailing considerations which go away towards neutralizing even that great point of.

Of these one of the most important is that which relates tointellectual and active qualifications of the directing head.stimulus of individual interest is some security for, but exertion is of little avail if the intelligenceis of an inferior order, which it must necessity be inmajority of concerns carried on by the persons chieflyin them. Where the concern is large, and can afford asufficient to attract a class of candidates superiorthe common average, it is possible to select for the general, and for all the skilled employments of a subordinate, persons of a degree of acquirement and cultivatedwhich more than compensates for their inferiorin the result. Their greater perspicacity enables them,even a part of their minds, to see probabilities ofwhich never occur to the ordinary run of men by theexertion of the whole of theirs; and their superior, and habitual rectitude of perception and of judgment,them against blunders, the fear of which would prevent thefrom hoarding their interests in any attempt out of theroutine.

It must be further remarked, that it is not a necessaryof joint stock management, that the persons employed,in superior or in subordinate offices, should be paidby fixed salaries. There are modes of connecting more orintimately the interest of the employees with the pecuniaryof the concern. There is a long series of intermediate, between working wholly on one's own account, andby the day, week, or year for an invariable payment. Eventhe case of ordinary unskilled labour, there is such a thingtask-work, or working by the piece: and the superiorof this is so well known, that judicious employersresort to it when the work admits of being put out inportions, without the necessity of too troublesome ato guard against inferiority in the execution. Incase of the managers of joint

stock companies, and of theand controlling officers in many private, it is a common enough practice to connect theirinterest with the interest of their employers, bythem part of their remuneration in the form of aon the profits. The personal interest thus given toservants is not comparable in intensity to that of theof the capital; hut it is sufficient to be a very materialto zeal and carefulness, and, when added to theof superior intelligence, often raises the quality ofservice much above that which the generality of masters areof rendering to themselves. The ulterior extensions ofthis principle of remuneration is susceptible, being ofsocial as well as economical importance, will be moreadverted to in a subsequent stage of the present.

As I have already remarked of large establishments generally,compared with small ones, whenever competition is free itswill show whether individual or joint stock agency isadapted to the particular case, since that which is mostand most economical will always in the end succeed inthe other.

3. The possibility of substituting the large system offor the small, depends of course, in the first place,the extent of the market. The large system can only bewhen a large amount of business is to be done: it, therefore, either a populous and flourishing community,a great opening for exportation. Again, this as well as everychange in the system of production is greatly favoured by acondition of capital. It is chiefly when the capitala country is receiving a great annual increase, that there islarge amount of capital seeking for investment: and a newis much sooner and more easily entered upon by new, than by withdrawing capital from existing employments.change is also much facilitated by the existence of largein few hands. It is true that the same amount of capitalbe raised by bringing together many small sums. But this(besides that it is not equally well suited to all branches of) supposes a much greater degree of commercial confidenceenterprise diffused through the community, and belongsto a more advanced stage of industrial progress.

In the countries in which there are the largest markets, thediffusion of commercial confidence and enterprise, theannual increase of capital, and the greatest number ofcapitals owned by individuals, there is a tendency tomore and more, in one branch of industry after, large establishments for small ones. In England, thetype of all these characteristics, there is a perpetualnot only of large manufacturing establishments, but also,a sufficient number of purchasers are assembled, ofand warehouses for conducting retail business on a large. These are almost always able to undersell the smaller, partly, it is understood, by means of division of, and the economy occasioned by limiting the employment ofagency to cases where skill is required; and partly, no, by the saving of labour arising from the great scale oftransactions; as it costs no more time, and not much moreof mind, to make a large purchase, for example, than aone, and very much less than to make a number of small.

With a view merely to production, and to the greatestof labour, this change is wholly beneficial. In someit is attended with drawbacks, rather social than, the nature of which has been already hinted at. Butdisadvantages may be supposed to attend on the changea small to a large system of production, they are notto the change from a large to a still larger. When, inemployment, the régime of independent small producers hasnever been possible, or has been superseded, and theof many work-people under One management has become fully, from that time any further enlargement in the scaleproduction is generally an unqualified benefit. It is obvious,example, how great an

economy of labour would be obtained ifwere supplied by a single gas or water company instead ofexisting plurality. While there are even as many as two, thisdouble establishments of all sorts, when one only, with aincrease, could probably perform the whole operationwell; double sets of machinery and works, when the wholethe gas or water required could generally be produced by oneonly; even double sets of pipes, if the companies did notthis needless expense by agreeing upon a division of the. Were there only one establishment, it could make lower, consistently with obtaining the rate of profit now. But would. it do so? Even if it did not, the communitythe aggregate would still be a gainer. since the shareholdersa part of the community, and they would obtain higher profitsthe consumers paid only the same. It is, however, an errorsuppose that the prices are ever permanently kept down by theof these companies. Where competitors are so few,always end by agreeing not to compete. They may run a racecheapness to ruin a new candidate, but as soon as he hashis footing they come to terms with him. When,, a business of real public importance can only beon advantageously upon so large a scale as to render theof competition almost illusory, it is an unthriftyof the public resources that several costly sets ofshould be kept up for the purpose of rendering tocommunity this one service. It is much better to treat it atas a public function; and if it be not such as theitself could beneficially undertake, it should be madeentire to the company or association which will perform itthe best terms for the public. In the case of railways, for, no one can desire to see the enormous waste of capitalland (not to speak of increased nuisance) involved in theof a second railway to connect the same placesunited by an existing one; while the two would not do thebetter than it could be done by one, and after a short timeprobably be amalgamated. Only one such line ought to be, but the control over that line never ought to bewith by the State, unless on a temporary concession, as in; and the vested right which Parliament has allowed to beby the existing companies, like all other proprietarywhich are opposed to public utility, is morally valid onlya claim to compensation.

4. The question between the large and the small systems ofas applied to agriculture — between large and small, the grande and the petite culture — stands, in many, on different grounds from the general question betweenand small industrial establishments. In its social aspect,as an element in the Distribution of Wealth, this questionoccupy us hereafter: but even as a question of production,superiority of the large system in agriculture is by no meansclearly established as in manufactures.

I have already remarked, that the operations of agriculturelittle susceptible of benefit from the division of labour.is but little separation of employments even on the largest. The same persons may not in general attend to the live, to the marketing, and to the cultivation of the soil; butbeyond that primary and simple classification theis not carried. The combination of labour of whichis susceptible, is chiefly that which Mr. WakefieldSimple Co-operation; several persons helping one another insame work, at the same time and place. But I confess it seemsme that this able writer attributes more importance to thatof co-operation, in reference to agriculture properly so, than it deserves. None of the common farming operationsmuch of it. There is no particular advantage in setting anumber of people to work together in ploughing or diggingsowing the same field, or even in mowing or reaping it unlesspresses. A single family can generally supply all

theof labour necessary for these purposes. And in thein which an union of many efforts is really needed, thereseldom found any impracticability in obtaining it where farmssmall.

The waste of productive power by subdivision of the landamounts to a great evil, but this applies chiefly to aso minute, that the cultivators have not enough landoccupy their time. Up to that point the same principles whichlarge manufactories are applicable to agriculture. Forgreatest productive efficiency, it is generally desirable(though even this proposition must be received with) that no family who have any land, should havethan they could cultivate, or than will fully employ theirand tools. These, however, are not the dimensions of large, but of what are reckoned in England very small ones. Thefarmer has some advantage in the article of buildings. Itnot cost so much to house a great number of cattle in one, as to lodge them equally well in several buildings.is also some advantage in implements. A small farmer is notlikely to possess expensive instruments. But the principalimplements, even when of the best construction, areexpensive. It may not answer to a small farmer to own amachine, for the small quantity of corn he has to; but there is no reason why such a machine should not inneighbourhood be owned in common, or provided by someto whom the others pay a consideration for its use;as, when worked by steam, they are so constructed asbe moveable.(3*) The large farmer can make some saving in costcarriage. There is nearly as much trouble in carrying a smallof produce to market, as a much greater produce; inhome a small, as a much larger quantity of manures, andof daily consumption. There is also the greaterof buying things in large quantities. These variousmust count for something, but it does not seem thatought to count for very much. In England, for some, there has been little experience of small farms; butIreland the experience has been ample, not merely under thebut under the best management; and the highest Irishmay be cited in opposition to the opinion which onsubject commonly prevails in England. Mr. Blacker, for, one of the most experienced agriculturists andimprovers in the North of Ireland, whose experiencechiefly in the best cultivated, which are also the mostdivided parts of the country, was of opinion, thatholding farms not exceeding from five to eight or ten, could live comfortably and pay as high a rent as any largewhatever. "I am firmly persuaded," (he says,(4*) "that thefarmer who holds his own plough and digs his own ground, iffollows a proper rotation of crops, and feeds his cattle inhouse, can undersell the large farmer, or in other words cana rent which the other cannot afford; and in this I amby the opinion of many practical men who have wellthe subject... The English farmer of 700 to 800 acresa kind of man approaching to what is known by the name of afarmer. He must have his horse to ride, and his gig,perhaps an overseer to attend to his labourers; he certainlysuperintend himself the labour going on in a farm of 800." After a few other remarks, he adds, "Besides all these, which the small farmer knows little about, there isgreat expense of carting out the manure from the homestead toa great distance, and again carting home the crop. A singlewill consume the produce of more land than would feed afarmer and his wife and two children. And what is more than, the large farmer says to his labourers, go to your work; butthe small farmer has occasion to hire them, he says, come;intelligent reader will, I dare say, understand the."

One of the objections most urged against small farms is, thatdo not and cannot maintain, proportionally to their extent,great a number of cattle as large farms, and that thissuch a deficiency of manure, that a soil muchmust always be impoverished. It will be

found,, that subdivision only produces this effect when itthe land into the hands of cultivators so poor as not tothe amount of live stock suitable to the size of their. A small farm and a badly stocked farm are not synonymous.make the comparison fairly, we must suppose the same amount ofwhich is possessed by the large farmers to beamong the small ones. When this condition, or evenapproach to it, exists, and when stall feeding is practised(and stall feeding now begins to be considered good economy evenlarge farms), experience, far from bearing out the assertionsmall farming is unfavourable to the multiplication of, conclusively establishes the very reverse. The abundancecattle, and copious use of manure, on the small farms of, are the most striking features in that Flemishwhich is the admiration of all competent judges,in England or on the Continent.(5*)

The disadvantage, when disadvantage there is, of small orof peasant farming, as compared with capitalist farming,chiefly consist in inferiority of skill and knowledge; butis not true, as a general fact, that such inferiority exists.of small farms and peasant farming, Flanders and Italy,a good agriculture many generations before England, andis still, as a whole, probably the best agriculture in the. The empirical skill, which is the effect of daily andobservation, peasant farmers often possess in an eminent. The traditional knowledge, for example, of the culture ofvine, possessed by the peasantry of the countries where thewines are produced, is extraordinary. There is no doubt anof science, or at least of theory; and to some extent aof the spirit of improvement, so far as relates to theof new processes. There is also a want of means toexperiments, which can seldom be made with advantage exceptrich proprietors or capitalists. As for those systematicwhich operate on a large tract of country at once(such as great works of draining or irrigation) or which for anyreasons do really require large numbers of workmentheir labour, these are not in general to be expectedsmall farmers, or even small proprietors, though combinationthem for such purposes is by no means unexampled, and willmore common as their intelligence is more developed.

Against these disadvantages is to be placed, where the tenureland is of the requisite kind, an ardour of industryunexampled in any other condition of agriculture. Thisa subject on which the testimony of competent witnesses is. The working of the petite culture cannot be fairlywhere the small cultivator is merely a tenant, and nota tenant on fixed conditions, but (as until lately in) at a nominal rent greater than can be paid, andpractically at a varying rent always amounting to thethat can be paid. To understand the subject, it must bewhere the cultivator is the proprietor, or at least aétayer with a permanent tenure; where the labour he exerts tothe produce and value of the land avails wholly, or atpartly, to his own benefit and that of his descendants. Indivision of our subject, we shall discuss at some lengthimportant subject of tenures of land, and I defer till thencitation of evidence on the marvellous industry of peasant. It may suffice here to appeal to the immense amountgross produce which, even without a permanent tenure, Englishgenerally obtain from their little allotments; abeyond comparison greater than a large farmer extracts,would find it his interest to extract, from the same piece of.

And this I take to be the true reason why large cultivationgenerally most advantageous as a mere investment for profit.occupied by a large farmer is not, in one sense of the word,so highly. There is not nearly so much labour expended on. This is not

on account of any economy arising fromof labour, but because, by employing less, a greateris obtained in proportion to the outlay. It does notto any one to pay others for exerting all the labour whichpeasant, or even the allotment-holder, gladly undergoes whenfruits are to be wholly reaped by himself. This labour,, is not unproductive : it all adds to the gross produce.anything like equality of skill and knowledge, the largedoes not obtain nearly so much from the soil as the small, or the small farmer with adequate motives to: but though his returns are less, the labour is less instill greater degree, and as whatever labour he employs must befor, it does not suit his purpose to employ more.

But although the gross produce of the land is greatest,paribus, under small cultivation, and although,, a country is able on that system to support a largerpopulation, it is generally assumed by English writerswhat is termed the net produce, that is, the surplus afterthe cultivators, must be smaller; that therefore, thedisposable for all other purposes, for manufactures,commerce and navigation, for national defence, for theof knowledge, for the liberal professions, for thefunctions of government, for the arts and literature, allwhich are dependent on this surplus for their existence as, must be less numerous; and that the nation,(waving all question as to the condition of the actual), must be inferior in the principal elements ofpower, and in many of those of general well-being. This,, has been taken for granted much too readily. Undoubtedlynon-agricultural population will bear a less ratio to the, under small than under large cultivation. But thatwill be less numerous absolutely, is by no means a. If the total population, agricultural andagricultural, is greater, the nonagricultural portion may henumerous in itself, and may yet be a smaller proportion ofwhole. If the gross produce is larger, the net produce maybe larger, and yet bear a smaller ratio to the gross produce.even Mr. Wakefield sometimes appears to confound theseideas. In France it is computed that two-thirds of thepopulation are agricultural. In England, at most,third. Hence Mr. Wakefield infers, that "as in France onlypeople are supported by the labour of two cultivators,in England the labour of two cultivators supports six, English agriculture is twice as productive as French," owing to the superior efficiency of large farmingcombination of labour. But in the first place, the factsare overstated. The labour of two persons in Englandnot quite support six people, for there is not a little foodfrom foreign countries, and from Ireland. In France,, the labour of two cultivators does much more than supply theof three persons. It provides the three persons, andforeigners, with flax, hemp, and to a certain extentsilk, oils, tobacco, and latterly sugar, which in Englandwholly obtained from abroad; nearly all the timber used inis of home growth, nearly all which is used in England is; the principal fuel of France is procured and brought toby persons reckoned among agriculturists, in England bynot so reckoned. I do not take into calculation hides and, these products being common to both countries, nor wine orproduced for home consumption, since England has aproduction of beer and spirits; but England has noexport of either article, and a great importation of the, while France supplies wines and spirits to the whole world.say nothing of fruit, eggs, and such minor particles ofproduce, in which the export trade of France is. But not to lay undue stress on these abatements, wetake the statement as it stands. Suppose that two persons,England, do bonâ fide produce the food of six, while in, for the same purpose, the labour of four is requisite.it follow that England must have a larger surplus for theof a non-agricultural population? No; but merely that shedevote two-thirds of her whole produce to the purpose,of one-third. Suppose the produce to be twice as great,the one-

third will amount to as much as the two-thirds. Themight be, that owing to the greater quantity of labouron the French system, the same land would produce foodtwelve persons which on the English system would only producefor six: and if this were so, which would be quite consistentthe conditions of the hypothesis, then although the food forwas produced by the labour of eight, while the six wereby the labour of only two, there would be the same number ofdisposable for other employment in the one country as inother. I am not contending that the fact is so. I know thatgross produce per acre in France as a whole (though not inmost improved districts) averages much less than in England,that, in proportion to the extent and fertility of the two, England has, in the sense we are now speaking of, muchlargest disposable population. But the disproportionis not to be measured by Mr. Wakefield's simple. As well might it be said that agricultural labour inUnited States, where, by a late census, four families infive appeared to be engaged in agriculture, must be stillinefficient than in France.

The inferiority of French cultivation (which, taking theas a whole, must be allowed to be real, though much) is probably more owing to the lower general averageindustrial skill and energy in that country, than to anycause; and even if partly the effect of minute, it does not prove that small faring is, but only (what is undoubtedly the fact) thatin France are very frequently too small, and, what is, broken up into an almost incredible number of patches or, most inconveniently dispersed and parted from one.

As a question, not of gross, but of net produce, themerits of the grande and the petite culture,when the small farmer is also the proprietor, cannotlooked upon as decided. It is a question on which good judgespresent differ. The current of English opinion is in favour offarms: on the Continent, the weight of authority seems toon the other side. Professor Rau, of Heidelberg, the author ofof the most comprehensive and elaborate of extant treatisespolitical economy, and who has that large acquaintance withand authorities on his own subject, which generallyhis countrymen, lays it down as a settled truth,small or moderate-sized farms yield not only a larger grossa larger net produce: though, he adds, it is desirable therebe some great proprietors, to lead the way in new.(6*) The most apparently impartial andjudgment that I have met with is that of M. Passy,(always speaking with reference to net produce) gives hisin favour of large farms for grain and forage; but, forkinds of culture which require much labour and attention,the advantage wholly on the side of small cultivation;in this description, not only the vine and the olive,a considerable amount of care and labour must be bestowedeach individual plant, but also roots, leguminous plants, andwhich furnish the materials of manufactures. The small, and consequent multiplication, of farms, according to all, are extremely favourable to the abundance of manyproducts of agriculture.(7*)

It is evident that every labourer who extracts from the landthan his own food, and that of any family he may have,the means of supporting a non-agricultural population.if his surplus is no more than enough to buy clothes, thewho make the clothes are a non-agricultural population,to exist by food which he produces. Every agricultural, therefore, which produces its own necessaries, adds tonet produce of agriculture; and so does every person born onland, who by employing himself on it, adds more to its grossthan the mere food which he eats. It is questionable, even in the most subdivided districts of Europe whichcultivated by the proprietors, the multiplication of hands onsoil has approached, or

tends to approach, within a greatof this limit. In France, though the subdivision istoo great, there is proof positive that it is farhaving reached the point at which it would begin to diminishpower of supporting a non-agricultural population. This isby the great increase of the towns; which have ofincreased in a much greater ratio than the population,(8*) showing (unless the condition of the townis becoming rapidly deteriorated, which there is noto believe) that even by the unfair and inapplicable testproportions, the productiveness of agriculture must be on the. This, too, concurrently with the amplest evidence thatthe more improved districts of France, and in some which,lately, were among the unimproved, there is a considerablyconsumption of country produce by the countryitself.

Impressed with the conviction that, of all faults which cancommitted by a scientific writer on political and social, exaggeration, and assertion beyond the evidence, mostto be guarded against, I limited myself in the earlyof this work to the foregoing very moderate statements.little knew how much stronger my language might have beenexceeding the truth, and how much the actual progress ofagriculture surpassed anything which I had at that timegrounds to affirm. The investigations of that eminenton agricultural statistics, M. Léonce de Lavergne,by desire of the Academy of Moral and Politicalof the Institute of France, have led to the conclusionsince the Revolution of 1789, the total produce of Frenchhas doubled; profits and wages having both increasedabout the same, and rent in a still greater ratio. M. de, whose impartiality is one of his greatest merits, is,, so far in this instance from the suspicion of having ato make out, that he is labouring to show, not how muchagriculture has accomplished, but how much still remainsit to do. "We have required" (he says) "no less than seventyto bring into cultivation two million hectares" (fiveEnglish acres) "of waste land, to suppress half our, double our agricultural products, increase ourby 30 per cent, our wages by 100 per cent, our rent byper cent. At this rate we shall require three quarters of amore to arrive at the point which England has already."(9*)

After this evidence, we have surely now heard the last of theof small properties and small farms withimprovement. The only question which remains open isof degree; the comparative rapidity of agriculturalunder the two systems; and it is the general opinionthose who are equally well acquainted with both, thatis greatest under a due admixture between them.

In the present chapter, I do not enter on the questiongreat and small cultivation in any other respect than asquestion of production, and of the efficiency of labour. Wereturn to it hereafter as affecting the distribution of the, and the physical and social well-being of thethemselves; in which aspects it deserves, and, a still more particular examination.:. Page 214 et seqq.. Supra, chap. vi. p. 94.. The observation in the text may hereafter may hereaftersome degree of modification from inventions such as theplough and the reaping machine. The effect, however, ofimprovements on the relative advantages of large and small, will not depend on the efficiency of the instruments, buttheir costliness. I see no reason to expect that this will beas to make them inaccessible to small farmers, orof small farmers.. Prize Essay on the Management of Landed Property in Ireland,William Blacker, Esq. (1837).. "The number of beasts fed on a farm of which the whole island," (says the elaborate and intellegent treatise onHusbandry, from personal observation and the best, published in the Library of the Society for theof Useful Knowledge,) "is surprising to

those who areacquainted with the mode in which the food is prepared forcattle. A beast for every three acres of land is a common, and in very small occupations where much spadeis used, the proportion is still greater. Afterthe accounts given in a variety of places andof the average quantity of milk which a cow gives whenin the stall,the result is, that it greatly exceeds that ofbest dairy farms, and the quantity of butter made from aquantity of milk is also greater. it appears astonishingthe occupier of only ten or twelve acres of light arablebe able to maintain four or five cows, but the fact isin the Waes country." (pp. 59, 60)

This subject is treated very intelligently in the work of, "Des Systemes de Culture et de leur Influence sur'Economie Sociale", one of the most inpartial discussions, asthe two systems, which has yet appeared in France.

"Sans nul doute, c'est l'Angleterre qui, a superficie egale,le plus d'animaux; la Hollande et quelques parties de lapourraient seules lui disputer cet avantage; maisce la un resultat des formes de l'exploitation, et desde climat et de situation locale neelles pas a le produire? C'est, a notre avis, ce quisaurait etre conteste. En effect, quoiqu'on en ait dit,ou la grande et la petite culture se rencontrent sur lespoints, c'est celle-ci qui, bien qu'elle ne puisseautant de moutons, possede, tout compense, le plusnobre d'animaux producteurs d'engrais. Voici, par example,qui ressort des informations fournies par la Belgique.

"Les deux provinces ou regne la plus petite culture sontd'Anvers et de la Flandre oriente, et elles possedent en, par 100 hectares de terres cultivees, 74 betes bovines14 moutons. Les deux provinces ou se trouvent les grandessont celles de Namur et du Hainaut, et elles n'ont en, pour 100 hectares de terres cultivees, que 30 beteset 45 moutons. Or, en comptant, suivant l'usage, 10comme l'equivalent d'une tete de gros betail, nousd'un cote, 76 animaux servant a maintenir ladu sol; de l'autre, moins de 35, difference a coup sur. (D'apres les documents statistiques publies par lede l'Interieur, 3me publication officielle.) Il est a, au surplus, que le nombre des animaux n'est pas, danspartie de la Belgique dont le sol est devise en tres-petites, beaucoup moindre qu'en Angleterre. En l'evaluant dansderniere contree a raison seulement du territoire en, il y existe, par centaine d'hectares, 65 betes a cornepres de 260 moutons, c-a-d. l'equivalent de 91 des premiers,seulement 15 de plus que dans l'autre. Et encore est-il juste'observer qu'en Belgique rien n'est perdu des engrais donnes paranimaus nourris a peu pres toute l'annee a l'etable, tandis'en Angleterre la pature en plein air affaiblitles quantites qu'il devient possible de mettrea profit.

"Dans le departement du Nord aussi, ce sont lesdont les fermes ont la moindre contenance quile plus d'animaux. Tandis que les arrondissementsLille et de Hazebrouck, outre un plus grand nombre de chevaux,, l'un l'equivalent de 52 tetes de gros betail, l'autre'equivalent de 46; les arrondissement ou les exploitations sontplus grandes, ceux de Dunkerque et d'Avesnes, ne contiennent,premier, que l'equivalent de 44 betes bovines, l'autre quede 40. (D'apres la Statisique de la France publiee par ledu Commerce: Agriculture, t. i.)

"Pareilles recherces etendues sur d'autres points de laoffriraient desresultats analogues. S'il est vrai que dansbanlieue des villes, la petite culture s'abstienne deanimaux, au produit desquels elle supplee facilementdes achats d'engrais, il ne se peut que le genre

de travailexige le plus de la terre ne soit pas celui qui enle plus activement la fertilite. Assurement il n'estdonne aux petites fermes de posseder de nombroux troupeaux de, et c'est un inconvenient; mais, en revanche, ellesplus de betes bovines que les grandes. C'est la unea laquelle elles ne sauraient se soustraire dans aucunou les besoins de la consommation le ont appelees a fleurir;periraient si elles ne reussissaient pas a y satisfie.

"Voici, au surplus, sur ce point des details dont'exactitude nos parait pleinement attestee par l'excellence duou nous les avons puises. Ces details, contenus dans lade la commune de Vensat (Puy de Dome), publieepar M. le docteur Jusseraud, maire de la commune, sont'autant plus precieux, qu'ils mettent dans tout leur la naturechangements que le developpement de la petite culture a, danspays dont il s'agit, apportes au nombre et a l'espece desdont le produit en engrais soutient et acroit lades terres. Dans la commune de Vensat, qui comprendhectares divises en 4600 parcelles appartenant a 591, le territoire exploite se compose de 1466. Or, en 1790, 17 fermes en occupaient les deux tiers etautres tout le reste. Depuis lors, les cultures se sont, et maintenant leur petitesse est extreme. Quelle a ete'influence du changement sur la quantite des animaux? Uneconsiderable. En 1790, la commune ne possedait'environ 676 des premieres, et 533 seulement des secondes.pour remplacer 1300 moutons elle a acquis 376 boeufs et, et tout compense, la somme des engrais s'est accrue dansproportion de 490 a 729, ou de plus de 48 pour cent. Et encoreil a remarquer que, plus forts et mieux nourris a present,animaux contribuent bien davantage a entretenir la fertiliteterres.

"Voila ce que les faits nous apprennent sur ce point: il'est donc pas vrai que la petite culture ne nourrisse pas autant'animaux que les autres; loin de la, a condition locales, c'est elle qui en possede le plus, et il ne devait pasdifficile de la presumer; car, du moment ou c'est elle quile plus aux terres, il faut bien qu'elle leur donne desd'autant plus reparateurs qu'elle en exige davantage. Que'on prenne un a un les autres reproches; qu'on les examine a lade faits bien apprecies, on s'appercevra bientot qu'ils neetre mieux fondes, et qu'ils n'ont ete formules quequ'on a compare l'etat des cultures dans des contrees oucauses de la prosperite agricole n'agissaient pas avec laenergie." (pp. 116-120). See pp. 352 and 353 of a French translation published atin 1839, by M. Fred de Kemmeter, of Ghent.. "Dans le department du Nord," says M. Passy, "une ferme de 20recueille en veaus, laitage, oeufs, et volailles,pour un millier de francs dans l'annee; et, les frais, c'est l'equivalent d'une addition au roduit net de 1520 francs par hectare." Des Systemes de Culture, p. 114.. During the interval between the census of 1851 and that of, the increase of the population of Paris alone, exceeded theincrease of all France; while nearly all the othertowns likewise showed an increase.. Economie Rurale de la France depuis 1789. Par M. Leonce de. Membre de l'Institut et de la Societe Centrale'Agriculture de France. 2me ed. p. 59.

The Principles of Political Economy

John Stuart Mill1,

Chapter 10

the Law of the Increase of Labour

1. We have now successively considered each of the agents orof production, and of the means by which the efficacythese various agents is promoted. In order to come to an endthe questions which relate exclusively to production, one, of primary importance, remains.

Production is not a fixed, but an increasing thing. When notback by bad institutions, or a low state of the arts of, the produce of industry has usually tended to increase;not only by the desire of the producers to augmentmeans of consumption, but by the increasing number of the. Nothing in political economy can be of more importanceto ascertain the law of this increase of production; theto which it is subject: whether it has practically any, and what these are. There is also no subject in politicalwhich is popularly less understood, or on which thecommitted are of a character to produce, and do produce,mischief.

We have seen that the essential requisites of production are— labour, capital, and natural agents; the term capitalall external and physical requisites which are productslabour, the term natural agents all those which are not. Butnatural agents we need not take into account those which,in unlimited quantity, being incapable of appropriation,never altering in their qualities, are always ready to lendequal degree of assistance to production, whatever may be its; as air, and the light of the sun. Being now about tothe impediments to production, not the facilities for, we need advert to no other natural agents than those whichliable to be deficient either in quantity or in productive. These may be all represented by the term land. Land, innarrowest acceptation, as the source of agricultural produce,the chief of them; and if we extend the term to mines and— to what is found in the earth itself, or in thewhich partly cover it, as well as to what is grown or fedits surface, it embraces everything with which we need atconcern ourselves.

We may say, then, without a greater stretch of language thanthe necessary explanation is permissible, that theof production are Labour, Capital, and Land. Theof production, therefore, depends on the properties ofelements. It is a result of the increase either of thethemselves, or of their productiveness. The law of theof production must be a consequence of the laws of these; the limits to the increase of production must be the, whatever they are, set by those laws. We proceed tothe three elements successively, with reference to this; or in other words, the law of the increase of production,in respect of its dependence, first on Labour, secondly on, and lastly on Land.

2. The increase of labour is the increase of mankind; of. On this subject the discussions excited by the EssayMr. Malthus have made the truth, though by no meansadmitted, yet so fully known, that a brieferof the question than would otherwise have beenwill probably on the present occasion suffice.

The power of multiplication inherent in all organic life mayregarded as infinite. There is no one species of vegetable or, which, if the earth were entirely abandoned to it, and tothings on which it feeds, would not in a small number ofoverspread every region of the globe, of which the climatecompatible with its existence. The degree of possibleis different in different orders of beings; but in allis sufficient, for the earth to be very speedily filled up.are many species of vegetables of which a single plant willin one year the germs of a thousand; if only two come to, in fourteen years the two will have multiplied tothousand and more. It is but a moderate case of fecundityanimals to be capable of quadrupling their numbers in a single; if they only do as much in half a century, ten thousandhave swelled within two centuries to upwards of two millionsa half. The capacity of increase is necessarily in aprogression: the numerical ratio alone is different.

To this property of organized beings, the human species formsexception. Its power of increase is indefinite, and the actualwould he extraordinarily rapid, if the power wereto the utmost.

It never is exercised to the utmost, and yet, in the mostcircumstances known to exist, which are those of aregion colonized from an industrious and civilized, population has continued, for several generations,of fresh immication, to double itself in not muchthan twenty years.(1*) That the capacity of multiplicationthe human species exceeds even this, is evident if we considergreat is the ordinary number of children to a family, whereclimate is good and early marriages usual; and how small aof them die before the age of maturity, in the presentof hygienic knowledge, where the locality is healthy, andfamily adequately provided with the means of living. It is alow estimate of the capacity of increase, if we only assume,in a good sanitary condition of the people, each generationbe double the number of the generation which preceded it.

Twenty or thirty years ago, these propositions might stillrequired considerable enforcement and illustration; but theof them is so ample and incontestable, that they havetheir way against all kinds of opposition, and may now beas axiomatic: though the extreme reluctance felt tothem, every now and then gives birth to some ephemeral, speedily forgotten, of a different law of increase incircumstances, through a providential adaptation of theof the human species to the exigencies of society.(2*)obstacle to a just understanding of the subject does notfrom these theories, but from too confused a notion of thewhich, at most times and places, keep the actual increasemankind so far behind the capacity.

3. Those causes, nevertheless, are in no way mysterious. Whatthe population of hares and rabbits from overstockingearth? Not want of fecundity, but causes very different: many, and insufficient subsistence; not enough to eat, andto be eaten. In the human race, which is not generallyto the latter inconvenience, the equivalents for it areand disease. If the multiplication of mankind proceeded only,that of the other animals, from a blind instinct, it wouldlimited in the same manner with theirs; the births would be asas the physical constitution of the species admitted of,the population would be kept down by deaths.(3*) But theof human creatures is more or less influenced byof consequences, and by impulses superior to mereinstincts: and they do not, therefore, propagate like, but are capable, though in very unequal degrees, of beingby prudence, or by the social affections, from givingto beings born only to misery and premature death. Inas mankind rise above

the condition of the beasts,is restrained by the fear of want rather than by want. Even where there is no question of starvation, many areacted upon by the apprehension of losing what have comebe regarded as the decencies of their situation in life.no other motives than these two have been found strong, in the generality of mankind, to counteract the tendencyincrease. It has been the practice of a great majority of theand the poorer classes, whenever free from external, to marry as early, and in most countries to have as many, with maintaining themselves in the condition of wereto, or were accustomed to consider as theirs. Among theclasses, in many individual instances, there is anrestraint exercised from the desire of doing more thantheir circumstances — of improving them; but such ais rarely found, or rarely has that effect, in theclasses. If they can bring up a family as they werebrought up, even the prudent among them are usually. Too often they do not think even of that, but rely on, or on the resources to be found in legal or voluntary.

In a very backward state of society, like that of Europe inMiddle Ages, and many parts of Asia at present, population isdown by actual starvation. The starvation does not takein ordinary years, but in seasons of scarcity, which instates of society are much more frequent and more extremeEurope is now accustomed to. In these seasons actual want,the maladies consequent on it, carry off numbers of the, which in a succession of favourable years again, to be again cruelly decimated. In a more improved state,, even among the poorest of the people, are limited to actual, and to a bare sufficiency of those: and the increasekept within bounds, not by excess of deaths, but by limitationbirths. The limitation is brought about in various ways. Incountries, it is the result of prudent or conscientiousrestraint. There is a condition to which the labouringare habituated; they perceive that by having too numerous, they must sink below that condition, or fail toit to their children; and this they do not choose toto. The countries in which, so far as is known, a greatof voluntary prudence has been longest practised on this, are Norway and parts of Switzerland. Concerning both,happens to be unusually authentic information; many factscarefully brought together by Mr. Malthus, and muchevidence has been obtained since his time. In bothcountries the increase of population is very slow; and whatit is not multitude of deaths, but fewness of births. Bothbirths and the deaths are remarkably few in proportion to the; the average duration of life is the longest in; the population contains fewer children, and a greaternumber of persons in the vigour of life, than isto be the case in any other part of the world. The paucitybirths tends directly to prolong life, by keeping the peoplecomfortable circumstances; and the same prudence is doubtlessin avoiding causes of disease, as in keeping clear ofprincipal cause of poverty. It is worthy of remark that thecounties thus honourably distinguished, are countries oflanded proprietors.

There are other cases in which the prudence and forethought,perhaps might not be exercised by the people themselves,exercised by the state for their benefit; marriage not beinguntil the contracting parties can show that they haveprospect of a comfortable support. Under these laws, of whichshall speak more fully hereafter, the condition of the peoplereported to be good, and the illegitimate births not soas might be expected. There are places, again, in whichrestraining cause seems to be not so much individual, as some general and perhaps even accidental habit ofcountry. In the rural districts of England,

during the last, the growth of population was very effectually repressedthe difficulty of obtaining a cottage to live in. It was thefor unmarried labourers to lodge and board with their; it was the custom for married labourers to have a: and the rule of the English poor laws by which a parishcharged with the support of its unemployed poor, renderedaverse to promote marriage. About the end of the, the great demand for men in war and manufactures, madebe thought a patriotic thing to encourage population: andthe same time the growing inclination of farmers to liverich people, favoured as it was by a long period of high, made them desirous of keeping inferiors at a greater, and, pecuniary motives arising from abuses of the poorbeing superadded, they gradually drove their labourers into, which the landlords now no longer refused permission to. In some countries an old standing custom that a girlnot marry until she had spun and woven for herself antrousseau (destined for the supply of her whole subsequent,) is said to have acted as a substantial check to. In England, at present, the influence of prudence indown multiplication is seen by the diminished number ofin the manufacturing districts in years when trade is.

But whatever be the causes by which population is anywhereto a comparatively slow rate of increase, an accelerationthe rate very speedily follows any diminution of the motivesrestraint. It is but rarely that improvements in the conditionthe labouring classes do anything more than give a temporary, speedy filled up by an increase of their numbers. The usecommonly choose to make of any advantageous change in their, is to take it out in the form which, by augmentingpopulation, deprives the succeeding generation of the. Unless, either by their general improvement inand moral culture, or at least by raising theirstandard of comfortable living, they can be taught toa better use of favourable circumstances, nothing permanentbe done for them; the most promising schemes end only ina more numerous, but not a happier people. By theirstandard, I mean that (when any such there is) down tothey will multiply, but not lower. Every advance they makeeducation, civilization, and social improvement, tends tothis standard; and there is no doubt that it is gradually,slowly, rising in the more advanced countries of Western. Subsistence and employment in England have nevermore rapidly than in the last forty years, but everysince 1821 showed a smaller proportional increase ofthan that of the period preceding; and the produce ofagriculture and industry is increasing in a progressive, while the population exhibits in every quinquennial, a smaller proportion of births to the population.

The subject, however, of population, in its connexion withcondition of the labouring classes, will be considered inplace; in the present we have to do with it solely as onethe elements of Production; and in that character we could notwith pointing out the unlimited extent of its naturalof increase, and the causes owing to which so small aof that unlimited power is for the most part actually. After this brief indication, we shall proceed to theelements.:. This has been disputed; but the highest estimate I have seenthe term which population requires for doubling itself in theStates, independently of immigrants and of their progeny- that of Mr. Carey — does not exceed thirty years.. One of these theories, that of Mr. Doubleday, may be thoughtrequire a passing notice, because it has of late obtained some, and because it derives a semblance of support from theanalogies of organic life. this theory maintains that theof the human animal, and of all other living beings,

isinverse proportion to the quantity of nutriment; that anpopulations multiplies rapidly, but that all classes incircumstances are, by a physiological law, so, as seldom to keep up their numbers without beingfrom a poorer class. There is no doubt that a positiveof nutriment, in animals as well as in fruit trees, isto reproduction; and it is quite possible, though bymeans proved, that the physiological conditions of fecundityexist in the greatest degree when the supply of food isstinted. But any one who might be inclined to draw from, even if admitted, conclusions at variance with theof Mr Malthus, needs only be invited to look through aof the Peerage, and observe the enormous families, almostin that class; or call to mind the large families ofEnglish clergy, and generally of the middle classes of.

It is, besides, well remarked by Mr Carey, that, to bewith Mr Doubleday's theory, the increase of theof the United States, apart from immigrants, ought toone of the slowest on record.

Mr Carey has a theory of his own, also grounded on atruth, that the total sum of nutriment received byorganized body directs itself in largest proportion totheof the system which are most used; from which hea diminution in the fecundity of human beings, notmore abundant feeding, but through the greater use ofbrains incidient to an advanced civilization. There isplausibility in this speculation, and experience mayconfirm it. But the change in the human constitutionit supposes, if ever realized, will conduce to the expectedrather by rendering physical self-restraint easier, thandispensing with its necessity; since the most rapid know ratemultiplicaton is quite compatible with a very sparingof the multiplying power.. Mr Carey expatiates on the absurdity of supposing that matterto assume the highest form of organization, the human, at arapid rate than it assumes the lower forms, which composefood; that human beings multiply faster than turnips and. But the limit to the increase of mankind, according todoctrine of Mr Malthus, does not depende on the power ofof turnips and cabbages, but on the limited quantity ofland on which they can be grown. So long as the quantity ofis practically unlimited, which it is in the United States,food, consequently, can be increased at the highest rateis natural to it, mankind also may, without augmentedin obtaining subsistence, increase at their highest. When Mr Carey can show, not that turnips and cabbages, butthe soil itself, or the nutritive elements containing in it,naturally to multiply, and that too at a rate exceeding therapid possible increase of mankind, he will have saidto the purpose. Till then, this part at least of hismay be considered as non-existent.

The Principles of Political Economy

John Stuart Mill1,

Chapter 11

the Law of the Increase of Capital

1. The requisites of production being labour, capital, and, it has been seen from the preceding chapter that theto the increase of production do not arise from theof these elements. On the side of labour there is noto an increase of production, indefinite in extent andunslackening rapidity. Population has the power of increasingan uniform and rapid geometrical ratio. If the only essentialof production were labour, the produce might, andwould, increase in the same ratio; and there would belimit, until the numbers of mankind were brought to a standactual want of space.

But production has other requisites, and of these, the onewe shall next consider is Capital. There cannot be morein any country, or in the world, than can be supportedthe produce of past labour until that of present labourin. There will be no greater number of productive labourersany country, or in the world, than can be supported from thatof the produce of past labour, which is spared from theof its possessor for purposes of reproduction, and isCapital. We have next, therefore, to inquire into theof the increase of capital: the causes by which theof its increase is determined, and the necessaryof that increase.

Since all capital is the product of saving, that is, offrom present consumption for the sake of a future, the increase of capital must depend upon two things — theof the fund from which saving can be made, and theof the dispositions which prompt to it.

The fund from which saving can be made, is the surplus of theof labour, after supplying the necessaries of life to allin the production: (including those employee inthe materials, and keeping the fixed capital in.) More than this surplus cannot be saved under any. As much as this, though it never is saved, alwaysbe. This surplus is the fund from which the enjoyments, asfrom the necessaries, of the producers are; it is the fund from which all are subsisted, who arethemselves engaged in production; and from which allare made to capital. It is the real net produce of the. The phrase, net produce, is often taken in a moresense, to denote only the profits of the capitalist andrent of the landlord, under the idea that nothing can bein the net produce of capital, but what is returned toowner of the capital after replacing his expenses. But thistoo narrow an acceptation of the term. The capital of theforms the revenue of the labourers, and if this exceedsnecessaries of life, it gives them a surplus which they mayexpend in enjoyments, or save. For every purpose for whichcan be occasion to speak of the net produce of industry,surplus ought to be included in it. When this is included,not otherwise, the net produce of the country is the measureits effective power; of what it can spare for any purposes ofutility, or private indulgence; the portion of its producewhich it can dispose at pleasure; which can be drawn upon toany ends, or gratify any wishes, either of the governmentof individuals; which it can either spend for its, or save for future advantage.

The amount of this fund, this net produce, this excess ofabove the physical necessaries of the producers, isof the elements that determine the amount of saving.

Thethe produce of labour after supporting the labourers, thethere is which can be saved. The same thing also partlyto determine how much will be saved. A part of theto saving consists in the prospect of deriving an incomesavings; in the fact that capital, employed in production,capable of not only reproducing itself but yielding an. The greater the profit that can be made from capital,stronger is the to its accumulation. That indeed which formsinducement to save, is not the whole of the fund whichthe means of saving, not the whole net produce of the, capital, and labour of the country, but only a part of it,part which forms the remuneration of the capitalist, and isprofit of stock. It will however be readily enough, even previously to the explanations which will behereafter, that when the general productiveness of labourcapital is great, the returns to the capitalist are likely tolarge, and that some proportion, though not an uniform one,commonly obtain between the two.

2. But the disposition to save does not wholly depend on theinducement to it; on the amount of profit to be madesavings. With the same pecuniary inducement, the inclinationvery different, in different persons, and in different. The effective desire of accumulation is of unequal, not only according to the. varieties of individual, but to the general state of society and civilization.all other moral attributes, it is one in which the humanexhibits great differences, conformably to the diversity ofcircumstances and the stage of its progress.

On topics which if they were to be fully investigated wouldthe bounds that can be allotted to them in this treatise,is satisfactory to be able to refer to other works in whichnecessary developments have been presented more at length. Onsubject of Population this valuable service has been renderedthe celebrated Essay of Mr. Malthus; and on the point whichoccupies us I can refer with equal confidence to another,a less known work, "New Principles of Political Economy,"Dr. Rae.(1*) In no other book known to me is so much light, both from principle and history, on the causes whichthe accumulation of capital.

All accumulation involves the sacrifice of a present, for theof a future good. But the expediency of such a sacrificevery much in different states of circumstances; and theto make it, varies still more.

In weighing the future against the present, the uncertaintyall things future is a leading element; and that uncertaintyof very different degrees. "All circumstances" therefore,"increasing the probability of the provision we make for futurityenjoyed by ourselves or others, tend" justly and reasonably"to give strength to the effective desire of accumulation. Thus aclimate or occupation, by increasing the probability of, has a tendency to add to this desire. When engaged in safe, and living in healthy countries, men are much moreto be frugal, than in unhealthy or hazardous occupations, andclimates pernicious to human life. Sailors and soldiers are. In the West Indies, New Orleans, the East Indies, theof the inhabitants is profuse. The same people,to reside in the healthy parts of Europe, and not gettingthe vortex of extravagant fashion, live economically. Warpestilence have always waste and luxury among the other evilsfollow in their train. For similar reasons, whatever givesto the affairs of the community is favourable to theof this principle. In this respect the generalof law and order, and the prospect of the continuancepeace and tranquillity, have considerable influence." * Theperfect the security,

the greater will be the effectiveof the desire of accumulation. Where property is less, or the vicissitudes ruinous to fortunes are more frequentsevere, fewer persons will save at all, and of those who do,will require the inducement of a higher rate of profit on, to make them prefer a doubtful future to the temptationpresent enjoyment.

These are considerations which affect the expediency, in theof reason, of consulting future interests at the expense of. But the inclination to make the sacrifice does notdepend upon its expediency. The disposition to save isfar short of what reason would dictate: and at other timesliable to be in excess of it.

Deficient strength of the desire of accumulation may ariseimprovidence, or from want of interest in other.may be connected with intellectual as well as moral. individuals and communities of a very low state ofare always improvident. A certain measure ofdevelopment seems necessary to enable absent things,especially things future, to act with any force on theand will. The effect of want of interest in others inaccumulation will be admitted, if we considered howsaving at present takes place, which has for its object theof others rather than of ourselves; the education of, their advancement in life, the future interests ofpersonal connexions, the power of promoting, by theof money or time, objects of public or private. If mankind were generally in the state of mind tosome approach was seen in the declining period of the Roman— caring nothing for their heirs, as well as nothing for, the public, or any object which survived them — theyseldom deny themselves any indulgence for the sake of, beyond what was necessary for their own future years;they would place in life annuities, or in some other formwould make its existence and their lives terminate.

3. From these various causes, intellectual and moral, there, in different portions of the human race, a greater diversityis usually adverted to, in the strength of the effectiveof accumulation. A backward state of general civilizationoften more the effect of deficiency in this particular, thanmany others which attract more attention. In the, for example, of a hunting tribe, "man may be saidbe necessarily improvident, and regardless of futurity,, in this state, the future presents nothing which can becertainty either foreseen or governed..... Besides a wantthe motives exciting to provide for the needs of futuritymeans of the abilities of the present, there is a want ofhabits of perception and action, leading to a constantin the mind of those distant points, and of the seriesevents serving to unite them. Even, therefore, if motives becapable of producing the exertion necessary to effectconnexion, there remains the task of training the mind toand act so as to establish it."

For instance: "Upon the banks of the St. Lawrence there arelittle Indian villages. They are surrounded, in general,a good deal of land, from which the wood seems to have beenextirpated, and have, besides, attached to them, extensiveof forest. The cleared land is rarely, I may almost say, cultivated, nor are any inroads made in the forest fora purpose. The soil is, nevertheless, fertile, and were it, manure lies in heaps by their houses. Were every family tohalf an acre of ground, till it, and plant it in potatoesmaize, it would yield a sufficiency to support them one halfyear. They suffer, too, every now and then, extreme want,that, joined to occasional intemperance, it is rapidlytheir numbers. This, to us, so strange apathy proceeds, in any great degree, from repugnance to labour; on the, they apply very diligently to it when its reward is. Thus, besides their peculiar occupations of huntingfishing, in which they are ever ready to engage, they areemployed in the navigation

of the St. Lawrence, and may belabouring at the oar, or setting with the pole, in the largeused for the purpose, and always furnish the greater partthe additional hands necessary to conduct rafts through somethe rapids. Nor is the obstacle aversion to agricultural. This is no doubt a prejudice of theirs; but merealways yield, principles of action cannot be created.the returns from agricultural labour are speedy and great,are also agriculturists. Thus, some of the little islands onSt. Francis, near the Indian village of St. Regis, areto the growth of maize, a plant yielding a return of a, and forming, even when half ripe, a pleasant andrepast. Patches of the best land on these islands areevery year cultivated by them for this purpose. Assituation renders them inaccessible to cattle, no fence is; were this additional outlay necessary, I suspect theybe neglected, like the commons adjoining their village.had apparently, at one time, been under crop. The cattle ofneighbouring settlers would now, however, destroy any cropsecurely fenced, and this additional necessary outlaybars their culture. It removes them to an order ofof slower return than that which corresponds to theof the effective desire of accumulation in this little.

"It is here deserving of notice, that what instruments ofkind they do form, are completely formed. The small spots ofthey cultivate are thoroughly weeded and hoed. A littlein this part would indeed reduce the crop very much; ofexperience has made them perfectly aware, and they act. It is evidently not the necessary labour that is theto more extended culture, but the distant return fromlabour. I am assured, indeed, that among some of the moretribes, the labour thus expended much exceeds that giventhe whites. The same portions of ground being cropped without, and manure not being used, they would scarcely yieldreturn, were not the soil most carefully broken and, both with the hoe and the hand. In such a situation aman would clear a fresh piece of ground. It would perhapsrepay his labour the first year, and he would have to lookhis reward in succeeding years. On the Indian, succeedingare too distant to make sufficient impression; though, towhat labour may bring about in the course of a few months,toils even more assiduously than the white man."*

This view of things is confirmed by the experience of the, in their interesting efforts to civilize the Indians of. They gained the confidence of these savages in a mostdegree. They acquired influence over themto make them change their whole manner of life. Theytheir absolute submission and obedience. Theypeace. They taught them all the operations ofagriculture, and many of the more difficult arts. Thereeverywhere to be seen, according to Charlevoix, "workshopsgilders, painters, sculptors, goldsmiths, watchmakers,, joiners, dyers," * &c. These occupations were notfor the personal gain of the artificers: the produceat the absolute disposal of the missionaries, who ruled theby a voluntary despotism. The obstacles arising fromto labour were therefore very completely overcome. Thedifficulty was the improvidence of the people; theirto think for the future: and the necessity accordinglythe most unremitting and minute superintendence on the part ofinstructors. "Thus at first, if these gave up to them theof the oxen with which they ploughed, their indolentwould probably leave them at evening still yokedthe implement. Worse than this, instances occurred where theythem up for supper, thinking, when reprehended, that theyexcused themselves by saying they were hungry....fathers, says Ulloa, have to visit the houses, to examineis really wanted: for without this care, the

Indians wouldlook after anything. They must be present, too, whenare slaughtered, not only that the meat may be equally, but that nothing may be lost." "But notwithstanding allcare and superintendence," says Charlevoix, "and all thewhich are taken to prevent any want of theof life, the missionaries are sometimes much. It often happens that they" (the Indians,) "do notto themselves a sufficiency of grain, even for seed. Astheir other provisions, were they not well looked after, theysoon be without wherewithal to support life."*

As an example intermediate, in the strength of the effectiveof accumulation, between the state of things thus depictedthat of modern Europe, the case of the Chinese deserves. From various circumstances in their personal habitssocial condition, it might be anticipated that they woulda degree of prudence and self-control greater than other, but inferior to most European nations. and theevidence is adduced of the fact.

"Durability is one of the chief qualities, marking a highof the effective desire of accumulation. The testimony ofascribes to the instruments formed by the Chinese, ainferior durability to similar instruments constructed by. The houses, we are told, unless of the higher ranks,in general of unburnt bricks, of clay, or of hurdleswith earth; the roofs, of reeds fastened to laths. Wescarcely conceive more unsubstantial or temporary fabrics.partitions are of paper, requiring to be renewed every. A similar observation may be made concerning theirof husbandry, and other utensils. They are almostof wood, the metals entering but very sparingly intoconstruction; consequently they soon wear out, and requirerenewals. A greater degree of strength in the effectiveof accumulation, would cause them to be constructed ofrequiring a greater present expenditure but being fardurable. From the same cause, much land, that in otherwould be cultivated, lies waste. All travellers takeof large tracts of lands, chiefly swamps, which continuea state of nature. To bring a swamp into tillage is generallyprocess, to complete which, requires several years. It must bedrained, the surface long exposed to the sun, and manyperformed, before it can be made capable of bearing a. Though yielding, probably, a very considerable return forlabour bestowed on it, that return is not made until a longhas elapsed. The cultivation of such land implies a greaterof the effective desire of accumulation than exists inempire.

"The produce of the harvest is, as we have remarked, alwaysinstrument of some order or another; it is a provision forwant, and regulated by the same laws as those to whichmeans of attaining a similar end conform. It is thererice, of which there are two harvests, the one in June,other in October. The period then of eight months betweenand June, is that for which provision is made each year,the different estimate they make of to-day and this day eightwill appear in the self-denial they practise now, in orderguard against want then. The amount of this self-denial wouldto be small. The father Parennin, indeed, (who seems to haveone of the most intelligent of the Jesuits, and spent a longamong the Chinese of all classes,) asserts, that it is theirdeficiency in forethought and frugality in this respect,is the cause of the scarcities and famines that frequently."

That it is defect of providence, not defect of industry, thatproduction among the Chinese, is still more obvious thanthe case of the semi-agriculturized Indians. "Where theare quick, where the instruments formed require buttime to bring the events for which they were formed to an," it is well known that "the great progress which has beenin the knowledge of the arts suited to the nature of theand the wants of its inhabitants" makes

industryand effective. "The warmth of the climate, the naturalof the country, the knowledge which the inhabitantsacquired of the arts of agriculture, and the discovery andadaptation to every soil of the most useful vegetable, enable them very speedily to draw from almost anyof the surface, what is there esteemed an equivalent to muchthan the labour bestowed in tilling and cropping it. Theycommonly double, sometimes treble harvests. These, when theyof a Cain so productive as rice, the usual crop, canfail to yield to their skill, from almost any portion ofthat can be at once brought into culture, very ample. Accordingly there is no spot that labour can immediatelyunder cultivation that is not made to yield to it. Hills,mountains, are ascended and formed into terraces; and water,that country the great productive agent, is led to every partdrains, or carried up to it by the ingenious and simplemachines which have been in use from time immemorialthis singular people. They effect this the more easily,the soil, even in these situations, being very deep andwith much vegetable mould. But what yet more this marksreadiness with which labour is forced to form the mostmaterials into instruments, where these instrumentsbring to an issue the events for which they are formed, isfrequent occurrence on many of their lakes and rivers, ofresembling the floating gardens of the Peruvians,covered with vegetable soil and cultivated. Labour in thisdraws from the materials on which it acts very speedy. Nothing can exceed the luxuriance of vegetation when thepowers of a genial sun are ministered to by a richand abundant moisture. It is otherwise, as we have seen, inwhere the return, though copious, is distant. Europeanare surprised at meeting these little floating farmsthe side of swamps which only require draining to render them. It seems to them strange that labour should not ratherbestowed on the solid earth, where its fruits might endure,on structures that must decay and perish in a few years. Thethey are among think not so much of future years as of thetime. The effective desire of accumulation is of verystrength in the one, from what it is in the other. Theof the European extend to a distant futurity, and he isat the Chinese, condemned through improvidence, andof sufficient prospective care, to incessant toil, and as he, insufferable wretchedness. The views of the Chinese areto narrower bounds; he is content to live from day to, and has learnt to conceive even a life of toil a blessing."*

When a country has carried production as far as in thestate of knowledge it can be carried with an amount ofcorresponding to the average strength of the effectiveof accumulation in that country, it has reached what isthe stationary state; the state in which no furtherwill be made to capital, unless there takes place eitherimprovement in the arts of production, or an increase in theof the desire to accumulate. In the stationary state,capital does not on the whole increase, some persons growand others poorer. Those whose degree of providence isthe usual standard, become impoverished, their capital, and makes room for the savings of those whose effectiveof accumulation exceeds the average. These become the oflands, manufactories, and other instruments of productionby their less provident countrymen.

What the causes are which make the return to capital greaterone country than in another, and which, in certain, make it impossible for any additional capital toinvestment unless at diminished returns, will appear clearly. In China, if that count has really attained, as it isto have done, the stationary state, accumulation haswhen the returns to capital are still as high as isby a rate of interest legally twelve per cent, andvarying (it is said) between

eighteen and thirty-six.is to be presumed therefore that no greater amount of capitalthe country already possesses, can find employment at thisrate of profit, and that any lower rate does not hold out toChinese sufficient temptation to induce him to abstain fromenjoyment. What a contrast with Holland, where, duringmost flourishing period of its history, the government washabitually to borrow at two per cent, and private, on good security, at three. Since China is not alike Burma or the native states of India, where aninterest is but an indispensable compensation for theincurred from the bad faith or poverty of the state, and ofall private borrowers; the fact, if fact it be, that theof capital has come to a stand while the returns to itstill so large, denotes a much less degree of the effectiveof accumulation, in other words a much lower estimate offuture relatively to the present, than that of most European.

4. We have hitherto spoken of countries in which the averageof the desire to accumulate is short of that which, inof any tolerable security, reason and soberwould approve. We have now to speak of others init decidedly surpasses that standard. In the morecountries of Europe, there are to be found abundanceprodigals; in some of them (and in none more than England) thedegree of economy and providence among those who live bylabour cannot be considered high: still, in a veryportion of the community, the professional,, and trading classes, being those who, generally, unite more of the means with more of the motives forthan any other class, the spirit of accumulation is so, that the signs of rapidly increasing wealth meet every: and the great amount of capital seeking investment excites, whenever peculiar circumstances turning much of itsome one channel, such as railway construction or foreignadventure, bring the largeness of the total amountevidence.

There are many circumstances, which, in England, give aforce to the accumulating propensity. The long exemptionthe country from the ravages of war, and the far earlierthan elsewhere at which property was secure from militaryor arbitrary spoliation, have produced a long-standinghereditary confidence in the safety of funds when trusted outthe owner's hands, which in most other countries is of muchrecent origin, and less firmly established. The geographicalwhich have made industry rather than war the naturalof power and importance to Great Britain, have turned anproportion of the most enterprising and energeticinto the direction of manufactures and commerce; intotheir wants and gratifying their ambition by producingsaving, rather than by appropriating what has been producedsaved. Much also depended on the better politicalof this country, which by the scope they haveto individual freedom of action, have encouraged personaland self-reliance, while by the liberty they confer ofand combination, they facilitate industrialon a large scale. The same institutions in another ofaspects, give a most direct and potent stimulus to theof acquiring wealth. The earlier decline of feudalismremoved or much weakened invidious distinctions betweenoriginally trading classes and those who had been accustomeddespise them; and a polity having grown up which made wealthreal source of political influence; its acquisition waswith a factitious value, independent of its intrinsic. It became synonymous with power; and since power withcommon herd of mankind gives power, wealth became the chiefof personal consideration, and the measure and stamp ofin life. To get out of one rank in society into the nextit, is the great aim of English middle-class life, and theof wealth the means. And inasmuch as to be richindustry, has always

hitherto constituted a step in thescale above those who are rich by means of industry, itthe object of ambition to save not merely as much as willa large income while in business, but enough to retirebusiness and live in affluence on realized gains. Thesehave, in England, been greatly aided by that extremeof the people for personal enjoyment, which is aof countries over which puritanism has passed. Butaccumulation is, on one hand, rendered easier by the absencea taste for pleasure, it is, on the other, made more difficultthe presence of a very real taste for expense. So strong isassociation between personal consequence and the signs of, that the silly desire for the appearance of a largehas the force of a passion, among large classes of awhich derives less pleasure than perhaps any other in thefrom what it spends. Owing to this circumstance, thedesire of accumulation has never reached so high ain England as it did in Holland, where, there being no richclass to set the example of a reckless expenditure, and theclasses, who possessed the substantial power on whichinfluence always waits, being left to establish their ownof living and standard of propriety, their habits remainedand unostentatious.

In England and Holland, then, for a long time past, and nowmost other countries in Europe (which are rapidly followingin the same race), the desire of accumulation does not, to make it effective, the copious returns which itin Asia, but is sufficiently called into action by aof profit so low, that instead of slackening, accumulationnow to proceed more rapidly than ever. and the secondof increased production, increase of capital, shows noto become deficient. So far as that element is, production is susceptible of an increase without anybounds.

The progress of accumulation would no doubt be considerably, if the returns to capital were to be reduced still lowerat present. But why should any possible increase of capitalthat effect? This question carries the mind forward to theone of the three requisites of production. Theto production, not consisting in any necessary limitthe increase of the other two elements, labour and capital,turn upon the properties of the only element which is, and in itself, limited in quantity. It must depend onproperties of land.:. This treatise is an example, such as not unfrequently presents, how much more depends on accident, than on the qualitiesa book, in determining its reception. Had it appeared at atime, and been favoured by circumstances, it would haveevery requisite for great success. The author, a Scotchmanin the United States, unites much knowledge, an originalof thought, a considerable turn for philosophic, and a manner of exposition and illustrationto make ideas tell not only for what they are worth,for more than they are worth, and which sometimes, I think,that effect in the writer's own mind. The principal fault ofbook is the position of antagonism in which, with thespirit apt to be found in those who have newon old subjects, he has placed himself towards Adam. I call this a fault, (though I think many of thejust, and some of them far-seeing,) because there isless real difference of opinion than might be supposed fromRae's animadversions and because what he has found vulnerablehis great predecessor is chiefly the "human too much" in his; the portion of them that is over and above what wasrequired or is actually used for the establishment of his.

The Principles of Political Economy

John Stuart Mill1,

Chapter 12

the Law of the Increase of Production from Land

1. Land differs from the other elements of production, labourcapital, in not being susceptible of indefinite increase. Itsis limited, and the extent of the more productive kinds ofmore limited still. It is also evident that the quantity ofcapable of being raised on any given piece of land is not. This limited quantity of land, and limitedof it, are the real limits to the increase of.

That they are the ultimate limits, must always have beenseen. But since the final barrier has never in anybeen reached; since there is no country in which all the, capable of yielding food, is so highly cultivated that aproduce could not (even without supposing any freshin agricultural knowledge) be obtained from it, and sincelarge portion of the earth's surface still remains entirely; it is commonly thought, and is very natural atto suppose, that for the present all limitation ofor population from this source is at an indefinite, and that ages must elapse before any practicalarises for taking the limiting principle into serious.

I apprehend this to be not only an error, but the mostone, to be found in the whole field of political economy.question is more important and fundamental than any other; itthe whole subject of the causes of poverty, in a richindustrious community: and unless this one matter beunderstood, it is to no purpose proceeding any furtherour inquiry.

2. The limitation to production from the properties of the, is not like the obstacle opposed by a wall, which standsin one particular spot, and offers no hindrance toshort of stopping it entirely. We may rather compare it tohighly elastic and extensible band, which is hardy ever sostretched that it could not possibly be stretched any, yet the pressure of which is felt long before the finalis reached, and felt more severely the nearer that limit is.

After a certain, and not very advanced, stage in the progressagriculture, it is the law of production from the land, thatany given state of agricultural skill and knowledge, bythe labour, the produce is not increased in an equal; doubling the labour does not double the produce; or, tothe same thing in other words, every increase of produceobtained by a more than proportional increase in theof labour to the land.

This general law of agricultural industry is the mostproposition in political economy. Were the law, nearly all the phenomena of the production andof wealth would be other than they are. The mosterrors which still prevail on our subject, resultnot perceiving this law at work underneath the moreagencies on which attention fixes itself; butthose agencies for the ultimate causes of effects ofthey may influence the form and mode, but of which it alonethe essence.

When, for the purpose of raising an increase of produce,is had to inferior land, it is evident that, so far, thedoes not increase in the same proportion with the labour.very meaning of inferior land, is land which with equalreturns a smaller amount of produce. Land may be inferiorin fertility or in situation. The one requires a greateramount of labour for growing the produce, the othercarrying it to market. If the land A yields a thousandof

wheat, to a given outlay in wages, manure, &c., andorder to raise another thousand recourse must be had to theB, which is either less fertile or more distant from the, the two thousand quarters will cost more than twice aslabour as the original thousand, and the produce ofwill be increased in a less ratio than the labourin procuring it.

Instead of cultivating the land B, it would be possible, bycultivation, to make the land A produce more. It might beor harrowed twice instead of once, or three timesof twice; it might be dug instead of being ploughed;ploughing, it might be gone over with a hoe instead of a, and the soil more completely pulverized; it might beor more thoroughly weeded; the implements used might behigher finish, or more elaborate construction; a greateror more expensive kinds of manure might be applied, orapplied, they might be more carefully mixed and incorporatedthe soil. These are some of the modes by which the same landbe made to yield a greater produce; and when a greatermust be had, some of these are among the means usuallyfor obtaining it. But, that it is obtained at a moreproportional increase of expense, is evident from the factinferior lands are cultivated. Inferior lands, or lands at adistance from the market, of course yield an inferior, and an increasing demand cannot be supplied from themat an augmentation of cost, and therefore of price. If thedemand could continue to be supplied from the superior, by applying additional labour and capital, at no greatercost than that at which they yield the quantitydemanded of them, the owners or farmers of those landsundersell all others, and engross the whole market. Landsa lower degree of fertility or in a more remote situation,indeed be cultivated by their proprietors, for the sake ofor independence; but it never could be the interestany one to farm them for profit. That a profit can be madethem, sufficient to attract capital to such an investment,a proof that cultivation on the more eligible lands hasa point, beyond which any greater application of labourcapital would yield, at the best, no greater return than canobtained at the same expense from less fertile or lesssituated lands.

The careful cultivation of a well-farmed district of EnglandScotland is a symptom and an effect of the more unfavourablewhich the land has begun to exact for any increase of its. Such elaborate cultivation costs much more in proportion,requires a higher price to render it profitable, than farminga more superficial system; and would not be adopted if accessbe had to land of equal fertility, previously unoccupied.there is the choice of raising the increasing supply whichrequires, from fresh land of as good quality as thatcultivated, no attempt is made to extract from landapproaching to what it will yield on what are esteemedbest European modes of cultivating. The land is tasked up topoint at which the greatest return is obtained in proportionthe labour employed, but no further: any additional labour iselsewhere. "It is long," says an intelligent traveller inUnited States,(1*) "before an English eye becomes reconciledthe lightness of the crops and the careless farming (as wecall it) which is apparent. One forgets that where land isplentiful and labour so dear as it is here, a totallyprinciple must be pursued to that which prevails incountries, and that the consequence will of course be aof tidiness, as it were, and finish, about everything whichlabour." Of the two causes mentioned, the plentifulnessland seems to me the true explanation, rather than theof labour; for, however dear labour may be, when food is, labour will always be applied to producing it into anything else. But this labour is more effectiveits end by being applied to fresh soil, than if it werein bringing the soil already occupied into higher. Only when no soils remain to be broken up but sucheither from

distance or inferior quality require arise of price to render their cultivation, can it become advantageous to apply the high farmingEurope to any American lands; except, perhaps, in thevicinity of towns, where saving in cost of carriage mayfor great inferiority in the return from the soil. As American farming is to English, so is the ordinaryto that of Flanders, Tuscany, or the Terra di Lavoro;by the application of a far greater quantity of labouris obtained a considerably larger gross produce, but onterms as would never be advantageous to a mere speculatorprofit, unless made so by much higher prices of agricultural.

The principle which has now been stated must be received, no, with certain explanations and limitations. Even after theis so highly cultivated that the mere application oflabour, or of an additional amount of ordinary, would yield no return proportioned to the expense, itstill happen that the application of a much greaterlabour and capital to improving the soil itself, byor permanent manures, would be as liberally remuneratedthe produce, as any portion of the labour and capital already. It would sometimes be much more amply remunerated. Thisnot be, if capital always sought and found the mostemployment; but if the most advantageous employmentto wait longest for its remuneration, it is only in a ratherstage of industrial development that the preference willgiven to it; and even in that advanced stage, the laws orconnected with property in land and the tenure of farms,often such as to prevent the disposable capital of thefrom flowing freely into the channel of agricultural: and hence the increased supply, required bypopulation, is sometimes raised at an augmenting costhigher cultivation, when the means of producing it withoutof cost are known and accessible. There can be no doubt,if capital were forthcoming to execute, within the next, all known and recognised improvements in the land of theKingdom which would pay at the existing prices, that is,would increase the produce in as great or a greater ratiothe expense; the result would be such (especially if weIreland in the supposition) that inferior land would nota long time require to be brought under tillage: probably apart of the less productive lands now cultivated,are not particularly favoured by situation, would go out of; or (as the improvements in question are not so muchto good land, but operate rather by converting badinto good) the contraction of cultivation might principallyplace by a less high dressing and less elaborate tilling ofgenerally; a falling back to something nearer the characterAmerican farming; such only of the poor lands being altogetheras were not found susceptible of improvement. And thusaggregate produce of the whole cultivated land would bear aproportion than before to the labour expended on it; andgeneral law of diminishing return from land would have, to that extent, a temporary supersession. No one,, can suppose that even in these circumstances, the wholerequired for the country could be raised exclusively frombest lands, together with those possessing advantages ofto place them on a par with the best. Much wouldcontinue to be produced under less advantageous, and with a smaller proportional return, than thatfrom the best soils and situations. And in proportion asfurther increase of population required a still greaterto the supply, the general law would resume its course,the further augmentation would be obtained at a more thanexpense of labour and capital.

3. That the produce of land increases, caeteris paribus, in aratio to the increase in the labour employed, is amore often ignored or disregarded than actually denied. It,

however, met with a direct impugner in the well-knownpolitical economist, Mr. H.C. Carey, who maintains thatreal law of agricultural industry is the very reverse; theincreasing in a greater ratio than the labour, or inwords affording to labour a perpetually increasing return.substantiate this assertion, he argues that cultivation doesbegin with the better soils, and extend from them, as theincreases, to the poorer, but begins with the poorer, andnot, till long after, extend itself to the more fertile.in a new country invariably commence on the high andlands; the rich but swampy soils of the river bottoms cannotfirst be brought into cultivation, by reason of their, and of the great and prolonged labour required forand draining them. As population and wealth increase,travels down the hill sides, clearing them as it, and the most fertile soils, those of the low grounds, are(he even says universally) the latest cultivated. These, with the inferences which Mr. Carey draws from, are set forth at much length in his latest and mosttreatise, "Principles of Social Science;" and hethem as subverting the very foundation of what he callsEnglish political economy, with all its practical, especially the doctrine of free trade.

As far as words go, Mr. Carey has a good case against severalthe highest authorities in political economy, who certainlyenunciate in too universal a manner the law which they laid, not remarking that it is not true of the first cultivationa newly settled country. Where population is thin and capital, land which requires a large outlay to render it fit formust remain untilled; though such lands, when their timecome, often yield a greater produce than those earlier, not only absolutely, but proportionally to the labour, even if we include that which had been expended infitting them for culture. But it is not pretended thatlaw of diminishing return waS operative from the veryof society: and though some political economists maybelieved it to come into operation earlier than it does, itquite early enough to support the conclusions they foundedit. Mr. Carey will hardly assert that in any old country — inor France, for example — the lands left waste are, orfor centuries been, more naturally fertile than those under. Judging even by his own imperfect test, that of local— how imperfect I need not stop to point out — is itthat in England or France at the present day thepart of the soil consists of the plains and valleys,the cultivated, of the hills? Every one knows, on the, that it is the high lands and thin soils which are leftnature, and when the progress of population demands anof cultivation, the extension is from the plains to the. Once in a century, perhaps, a Bedford Level may be, or a Lake of Harlem pumped out: but these are slight andexceptions to the normal progress of things; and in oldwhich are at all advanced in civilization, little ofsort remains to be done.(2*)

Mr. Carey himself unconsciously bears the strongest testimonythe reality of the law he contends against: for one of themost strenuously maintained by him is, that the rawof the soil, in an advancing community, steadily tend toin price. Now, the most elementary truths of politicalshow that this could not happen, unless the cost of, measured in labour, of those products, tended to. If the application of additional labour to the land was, asgeneral rule, attended with an increase in the proportional, the price of produce, instead of rising, must necessityas society advances, unless the cost of production of goldsilver fell still more: a case so rare, that there are onlyperiods in all history when it is known to have taken place;one, that which followed the opening of the Mexican andmines; the other, that in which we now live. At allperiods, except these two, the cost

of production of themetals has been either stationary or rising. If,, it be true that the tendency of agricultural produceto rise in money price as wealth and population increase,needs no other evidence that the labour required for risingfrom the soil tends to augment when a greater quantity is.

I do not go so far as Mr. Carey: I do not assert that theof production, and consequently the price, of agricultural, always and necessity rises as population increases. Itto do so; but the tendency may be, and sometimes is, evenlong periods, held in check. The effect does not depend onsingle principle, but on two antagonizing principles. There isagency, in habitual antagonism to the law of diminishingfrom land; and to the consideration of this we shall now. It is no other than the progress of civilization. I usegeneral and somewhat vague expression, because the things toincluded are so various, that hardly any term of a moresignification would comprehend them all.

Of these, the most obvious is the progress of agricultural, skill, and invention. Improved processes ofare of two kinds: some enable the land to yield aabsolute produce, without an equivalent increase of; others have not the power of increasing the produce, butthat of diminishing the labour and expense by which it is. Among the first are to be reckoned the disuse of, by means of the rotation of crops; and the introductionnew articles of cultivation capable of entering advantageouslythe rotation. The change made in British agriculture towardsclose of the last century, by the introduction of turnip, is spoken of as amounting to a revolution. Theseoperate not only by enabling the land to produce aevery year, instead of remaining idle one year in every twothree to renovate its powers, but also by direct increase ofproductiveness; since the great addition made to the numbercattle by the increase of their food, affords more abundantto fertilize the corn lands. Next in order comes theof new articles of food, containing a greater amountsustenance, like the potato, or more productive species orof the same plant, such as the Swedish turnip. In theclass of improvements must be placed a better knowledge ofproperties of manures, and of the most effectual modes ofthem; the introduction of new and more powerfulagents, such as guano, and the conversion to the same, of substances previously wasted; inventions likeploughing or tile-draining; improvements in the bree orof labouring cattle; augmented stock or the animalsconsume and convert into human food what would otherwise be; and the like. The other sorts of improvements, thosediminish labour, but without increasing the capacity of theto produce, are such as the improved construction of tools;introduction of new instruments which spare manual labour, aswinnowing and threshing machines; a more skilful andapplication of muscular exertion, such as the, so slowly accomplished in England, of Scotch, with two horses abreast and one man, instead of threefour horses in a team and two men, &c. These improvements doadd to the productiveness of the land, but they are equallywith the former to counteract the tendency in the costproduction of agricultural produce, to rise with the progresspopulation and demand.

Analogous in effect to this second class of agricultural, are improved means of communication. Good roads areto good tools. It is of no consequence whether theof labour takes place in extracting the produce from the, or in conveying it to the place where it is to be consumed.to say in addition, that the labour of cultivation itself isby whatever lessens the cost of bringing manure from a, or facilitates the many operations of transport fromto place which occur within the bounds of the farm.and canals are virtually a

diminution of the cost ofof all things sent to market by them; and literally soall those, the appliances and aids for producing which, theyto transmit. By their means land can be cultivated, whichnot otherwise have remunerated the cultivators without aof price. improvements in navigation have, with respect toor materials brought from beyond sea, a corresponding.

From similar considerations, it appears that many purelyimprovements, which have, apparently at least, noconnexion with agriculture, nevertheless enable a givenof food to be obtained with a smaller expenditure of. A great improvement in the process of smelting iron,tend to cheapen agricultural implements, diminish the costrailroads, of waggons and carts, ships, and perhaps buildings,many other things to which iron is not at present applied,it is, too costly. and would thence diminish the cost ofof food. The same effect would follow from anin those processes of what may be termed manufacture,which the material of food is subjected after it is separatedthe ground. The first application of wind or water power tocorn, tended to cheapen bread as much as a very importantin agriculture would have done; and any greatin the construction of corn-mills, would have, in, a similar influence. The effects of cheapeninghave been already considered. There are alsoinventions which facilitate all great operations onearth's surface. An improvement in the art of taking levelsof importance to draining, not to mention canal and railway. The fens of Holland, and of some parts of England, areby pumps worked by the wind or by steam. Where canals of, or where tanks or embankments are necessary,skill is a great resource for cheapening production.

Those manufacturing improvements which cannot be madeto facilitate, in any of its stages, the actualof food, and therefore do not help to counteract orthe diminution of the proportional return to labour fromsoil, have, however, another effect, which is practically. What they do not prevent, they yet, in some degree,for.

The materials of manufacture being all drawn from the land,many of them from agriculture, which supplies in particularentire material of clothing; the general law of productionthe land, the law of diminishing return, must in the lastbe applicable to manufacturing as well as to agricultural. As population increases, and the power of the land toincreased produce is strained harder and harder, anysupply of material, as well as of food, must beby a more than proportionally increasing expenditure of. But the cost of the material forming generally a veryportion of the entire cost of the manufacture, thelabour concerned in the production of manufacturedis but a small fraction of the whole labour worked up incommodity. All the rest of the labour tends constantly andtowards diminution, as the amount of production. Manufactures are vastly more susceptible than, of mechanical improvements, and contrivances forlabour; and it has already been seen how greatly theand economical distribution, depend on the extent of the, and on the possibility of production in large masses. In, accordingly, the causes tending to increase theof industry, preponderate greatly over the onewhich tends to diminish it: and the increase of production,forth by the progress of society, takes place, not at an, but at a continually diminishing proportional cost.fact has manifested itself in the progressive fall of theand values of almost every kind of manufactured goodstwo centuries past; a fall accelerated by the mechanicalof the last seventy or eighty years, and susceptiblebeing prolonged and extended beyond any limit which it wouldsafe to specify.

Now it is quite conceivable that the efficiency oflabour might be undergoing, with the increase of, a gradual diminution; that the price of food, in, might be progressively rising, and an ever growingof the population might be needed to raise food forwhole; while yet the productive power of labour in all otherof industry might be so rapidly augmenting, that theamount of labour could be spared from manufactures, anda greater produce be obtained, and the aggregateof the community be on the whole better supplied, than. The benefit might even extend to the poorest class. Thecheapness of clothing and lodging might make up to themthe augmented cost of their food.

There is, thus, no possible improvement in the arts ofwhich does not in one or another mode exercise aninfluence to the law of diminishing return tolabour. Nor is it only industrial improvements whichthis effect. Improvements in government, and almost everyof moral and social advancement, operate in the same manner.a country in the condition of France before the: taxation imposed almost exclusively on the industrial, and on such a principle as to be an actual penalty on; and no redress obtainable for any injury to propertyperson, when inflicted by people of rank, or court influence.not the hurricane which swept away this system of things,if we look no further than to its effect in augmenting theof labour, equivalent to many industrial? The removal of a fiscal burthen on agriculture, such,. tithe, has the same effect as if the labour necessary forthe existing produce were suddenly reduced one-tenth.abolition of corn laws, or of any other restrictions whichcommodities from being produced where the cost of theiris lowest, amounts to a vast improvement in. When fertile land, previously reserved as hunting, or for any other purpose of amusement, is set free for, the aggregate productiveness of agricultural industry is. It is well known what has been the effect in Englandbadly administered poor laws, and the still worse effect inof a bad system of tenancy, in rendering agriculturalslack and ineffective. No improvements operate moreupon the productiveness of labour, than those in theof farms, and in the laws relating to landed property. Theup of entails, the cheapening of the transfer of, and whatever else promotes the natural tendency of landa system of freedom, to pass out of hands which can makeof it into those which can make more; the substitution ofleases for tenancy at will, and of any tolerable system ofwhatever for the wretched cottier system; above all, theof a permanent interest in the soil by theof it; all these things are as real, and some of themgreat, improvements in production, as the invention of thejenny or the steam-engine.

We may say the same of improvements in education. Theof the workman is a most important element in theof labour. So low, in some of the most civilized, is the present standard of intelligence, that there isany source from which a more indefinite amount ofmay be looked for in productive power, than bywith brains those who now have only hands. The, economy, and general trustworthiness of labourersas important as their intelligence. Friendly relations, and aof interest and feeling between labourers and, are eminently so: I should rather say, would be: for Inot where any such sentiment of friendly alliance now. Nor is it only in the labouring class that improvement ofand character operates with beneficial effect even on. In the rich and idle classes, increased mental energy,solid instruction, and stronger feelings of conscience,spirit, or philanthropy, would qualify them to originatepromote the most valuable improvements, both in theresources of their country, and in its institutionscustoms. To look no further than the most obvious

phenomena;backwardness of French agriculture in the precise points inbenefit might be expected from the influence of an educated, is partly accounted for by the exclusive devotion of thelanded proprietors to town interests and town pleasures.is scarcely any possible amelioration of human affairswould not, among its other benefits, have a favourable, direct or indirect, upon the productiveness of. The intensity of devotion to industrial occupationsindeed in many cases be moderated by a more liberal andmental culture, but the labour actually bestowed on thosewould almost always be rendered more effective.

Before pointing out the principal inferences to be drawn fromnature of the two antagonist forces by which theof agricultural industry is determined, we mustthat what we have said of agriculture, is true withvariation, of the other occupations which it represents;all the arts which extract materials from the globe. Mining, for example, usually yields an increase of produce at athan proportional increase of expense. It does worse, forits customary annual produce requires to be extracted by aand greater expenditure of labour and capital. As a minenot reproduce the coal or ore taken from it, not only aremines at last exhausted, but even when they as yet show noof exhaustion, they must be worked at a continuallycost; shafts must be sunk deeper, galleries driven, greater power applied to keep them clear of water; themust be lifted from a greater depth, or conveyed adistance. The law of diminishing return applies thereforemining, in a still more unqualified sense than to agriculture:the antagonizing agency, that of improvements in production,applies in a still greater degree. Mining operations aresusceptible of mechanical improvements than agricultural :first great application of the steam-engine was to mining;there are unlimited possibilities of improvement in theprocesses by which the metals are extracted. There iscontingency, of no unfrequent occurrence, which avails tothe progress of all existing mines towards: this is, the discovery of new ones, equal or superiorrichness.

To resume; all natural agents which are limited in quantity,not only limited in their ultimate productive power, but,before that power is stretched to the utmost, they yield toadditional demands on progressively harder terms. This lawhowever be suspended, or temporarily controlled, by whateverto the general power of mankind over nature; and especiallyany extension of their knowledge, and their consequent, of the properties and powers of natural agents.:. Letters from America, by John Robert Godley, vol i. p. 42. SeeLyell's Travels in America, vol. ii. p. 83.. Ireland may be alleged as an exception; a large fraction ofentire soil of that country being still incapable offor want of drainage. But though Ireland is an old, unfortunate social and political circumstances have kepta poor and backward one. Neither is it at all certain that theof Ireland, if drained and brought under tillage, would takeplace along with Mr Carey's fertile river bottoms, or amongbut the poorer soils.

The Principles of Political Economy

John Stuart Mill1,

Chapter 13

of the Foregoing Laws

1. From the preceding exposition it appears that the limit toincrease of production is two-fold; from deficiency of, or of land. Production comes to a pause, either becauseeffective desire of accumulation is not sufficient to giveto any further increase of capital, or because, howeverthe possessors of surplus income may be to save aof it, the limited land at the disposal of the communitynot permit additional capital to be employed with such a, as would be an equivalent to them for their abstinence.

In countries where the principle of accumulation is as weakit is in the various nations of Asia; where people willsave, nor work to obtain the means of saving, unlessthe inducement of enormously high profits, nor even then ifis necessary to wait a considerable time for them; whereproductions remain scanty, or drudgery great, becauseis neither capital forthcoming nor forethought sufficientthe adoption of the contrivances by which natural agents areto do the work of human labour; the desideratum for such a, economically considered, is an increase of industry, andthe effective desire of accumulation. The means are, first, agovernment: more complete security of property; moderate, and freedom from arbitrary exaction under the name of; a more permanent and more advantageous tenure of land,to the cultivator as far as possible the undividedof the industry, skill, and economy he may exert., improvement of the public intelligence: the decay ofor superstitions which interfere with the effectiveof industry; and the growth of mental activity, makingpeople alive to new objects of desire. Thirdly, theof foreign arts, which raise the returns derivableadditional capital, to a rate corresponding to the lowof the desire of accumulation: and the importation ofcapital, which renders the increase of production noexclusively dependent on the thrift or providence of thethemselves, while it places before them a stimulating, and by instilling new ideas and breaking the chains of, if not by improving the actual condition of the, tends to create in them new wants, increased, and greater thought for the future. Theseapply more or less to all the Asiatic populations,to the less civilized and industrious parts of Europe, as, Turkey, Spain, and Ireland.

2. But there are other countries, and England is at the headthem, in which neither the spirit of industry nor thedesire of accumulation need any encouragement; wherepeople will toil hard for a small remuneration, and save mucha small profit; where, though the general thriftiness of theclass is much below what is desirable, the spirit ofin the more prosperous part of the communityabatement rather than increase. In these countries therenever be any deficiency of capital, if its increase werechecked or brought to a stand by too great a diminution ofreturns. It is the tendency of the returns to a progressive, which causes the increase of production to be oftenwith a deterioration in the condition of the producers;this tendency, which would in time put an end to increase ofaltogether, is a result of the necessary and inherentof production from the land.

In all countries which have passed beyond a rather earlyin the progress of agriculture, every increase in thefor food, occasioned by increased population, will always,there is a simultaneous improvement in production,the share which on a fair division would fall to each. An increased production, in default of unoccupiedof fertile land, or of fresh improvements tending tocommodities, can never be obtained but by increasing thein more than the same proportion. The population mustwork harder, or eat less, or obtain their usual food bya part of their other customary comforts. Whenevernecessity is postponed, notwithstanding an increase of, it is because the improvements which facilitatecontinue progressive; because the contrivances offor making their labour more effective, keep up an equalwith nature, and extort fresh resources from herpowers as fast as human necessities occupy and engrossold.

From this, results the important corollary, that theof restraining population is not, as many persons, peculiar to a condition of great inequality of property.greater number of people cannot, in any given state of, be collectively so well provided for as a smaller.niggardliness of nature, not the injustice of society, is theof the penalty attached to over-population. An unjustof wealth does not even aggravate the evil, but, at, causes it to be somewhat earlier felt. It is in vain to, that all mouths which the increase of mankind calls into, bring with them hands. The new mouths require as muchas the old ones, and the hands do not produce as much. Ifinstruments of production were held in joint property by thepeople, and the produce divided with perfect equality among, and if, in a society thus constituted, industry were asand the produce as ample as at present, there would beto make all the existing population extremely comfortable;when that population had doubled itself, as, with thehabits of the people, under such an encouragement, itwould in little more than twenty years, what wouldbe their condition? Unless the arts of production were insame time improved in an almost unexampled degree, thesoils which must be resorted to, and the more laboriousscantily remunerative cultivation which must be employed onsuperior soils, to procure food for so much larger a, would, by an insuperable necessity, render everyin the community poorer than before. If the populationto increase at the same rate, a time would soon arriveno one would have more than mere necessaries, and, soon, a time when no one would have a sufficiency of those, andfurther increase of population would be arrested by death.

Whether, at the present or any other time, the produce ofproportionally to the labour employed, is increasing or, and the average condition of the people improving or, depends upon whether population is advancingthan improvement, or improvement than population. After aof density has been attained, sufficient to allow thebenefits of combination of labour, all further increasein itself to mischief, so far as regards the averageof the people; but the progress of improvement has aoperation, and allows of increased numbers withoutdeterioration, and even consistently with a higher average of. Improvement must here be understood in a wide sense,not only new industrial inventions, or an extended usethose already known, but improvements in institutions,, opinions, and human affairs generally, provided they, as almost all improvements do, to give new motives or newto production. If the productive powers of the countryas rapidly as advancing numbers call for an augmentationproduce, it is not necessary to obtain that augmentation bycultivation of soils more sterile than the worst alreadyculture, or by

applying additional labour to the old soilsa diminished advantage; or at all events this loss of power isby the increased efficiency with which, in theof improvement, labour is employed in manufactures. Inway or the other, the increased population is provided for,all are as well off as before. But if the growth of humanover nature is suspended or slackened, and population doesslacken its increase; if, with only the existing command overagencies, those agencies are called upon for an increased; this greater produce will not be afforded to thepopulation, without either demanding on the average aeffort from each, or on the average reducing each to aration out of the aggregate produce.

As a matter of fact, at some periods the progress ofhas been the more rapid of the two, at others that of. In England during a long interval preceding theRevolution, population increased slowly. but the progressimprovement, at least in agriculture, would seem to have beenslower, since though nothing occurred to lower the value ofprecious metals, the price of corn rose considerably, and, from an exporting, became an importing country. This, however, is short of conclusive, inasmuch as thenumber of abundant seasons during the first half ofcentury, not continuing during the last, was a cause ofprice in the later period, extrinsic to the ordinaryof society. Whether during the same period improvementsmanufactures, or diminished cost of imported commodities, madefor the diminished productiveness of labour on the land,uncertain. But ever since the great mechanical inventions of, Arkwright, and their contemporaries, the return to labourprobably increased as fast as the population; and would havestripped it, if that very augmentation of return had notforth an additional portion of the inherent power ofin the human species. During the twenty or thirtylast elapsed, so rapid has been the extension of improvedof agriculture, that even the land yields a greaterin proportion to the labour employed; the average pricecorn had become decidedly lower, even before the repeal of thelaws had so materially lightened, for the time being, theof population upon production. But though improvementduring a certain space of time keep up with, or even surpass,actual increase of population, it assuredly never comes up torate of increase of which population is capable; and nothinghave prevented a general deterioration in the condition ofhuman race, were it not that population has in fact been. Had it been restrained still more, and the sametaken place, there would have been a larger dividendthere now is, for the nation or the species at large. Theground wrung from nature by the improvements would not haveall used up in the support of mere numbers. Though the grosswould not have been so great, there would have been aproduce per head of the population.

3. When the growth of numbers outstrips the progress of, and a country is driven to obtain the means ofon terms more and more unfavourable, by the inabilityits land to meet additional demands except on more onerous; there are two expedients by which it may hope tothat disagreeable necessity, even though no changetake place in the habits of the people with respect torate of increase. One of these expedients is theof food from abroad. The other is emigration.

The admission of cheaper food from a foreign country, isto an agricultural invention by which food could beat a similarly diminished cost at home. It equallythe productive power of labour. The return was before,much food for so much labour employed in the growth of food:return is now, a greater quantity of food, for the

sameemployed in producing cottons or hardware or some other, to be given in exchange for food. The one improvement,the other, throws back the decline of the productive powerlabour by a certain distance: but in the one case as in the, it immediately resumes its course; the tide which has, instantly begins to re-advance. It might seem, indeed,when a country draws its supply of food from so wide aas the whole habitable globe, so little impression can beon that great expanse by any increase of mouths in onecorner of it, that the inhabitants of the country mayand treble their numbers, without feeling the effect inincreased tension of the springs of production, or anyof the price of food throughout the world. But incalculation several things are overlooked.

In the first place, the foreign regions from which corn canimported do not comprise the whole globe, but those parts ofprincipally which are in the immediate neighbourhood of coastsnavigable rivers. The coast is the part of most countriesis earliest and most thickly peopled, and has seldom anyto spare. The chief source of supply, therefore, is theof country along the banks of some navigable river, as the, the Vistula, or the Mississippi; and of such there is not,the productive regions of the earth, so great a multitude assuffice during an indefinite time for a rapidly growing, without an increasing strain on the productive powers ofsoil. To obtain auxiliary supplies of corn from the interiorany abundance, is, in the existing state of the, in most cases impracticable. By improved roads,by canals and railways, the obstacle will eventually be soas not to be insuperable: but this is a slow progress; inthe food-exporting counties except America, a very slow; and one which cannot keep pace with population, unlessincrease of the last is very effectually restrained.

In the next place, even if the supply were drawn from theinstead of a small part of the surface of the exporting, the quantity of food would still be limited, whichbe obtained from them without an increase of thecost. The countries which export food may be dividedtwo classes; those in which the effective desire ofis strong, and those in which it is weak. Inand the United States of America, the effective desireaccumulation is strong; capital increases fast, and theof food might be very rapidly extended. But in suchpopulation also increases with extraordinary rapidity.agriculture has to provide for their own expanding numbers,well as for those of the importing countries. They must,, from the nature of the case, be rapidly driven, if notless fertile, at least what is equivalent, to remoter and lesslands, and to modes of cultivation like those of old, less productive in proportion to the labour and.

But the countries which have at the same time cheap food andindustrial prosperity are few, being only those in whicharts of civilized life have been transferred full-grown to aand uncultivated soil. Among old countries, those which areto export food, are able only because their industry is in abackward state; because capital, and hence population, haveincreased sufficiently to make food rise to a higher price.countries are Russia, Poland, and the plains of the Danube.those regions the effective desire of accumulation is weak,arts of production most imperfect, capital scanty, and its, especially from domestic sources, slow. When andemand arose for food to be exported to other, it would only be very gradually that food could beto meet it. The capital needed could not be obtained byfrom other employments, for such do not exist. Theor hardware which would be received from England infor corn, the Russians and Poles do not now produce incountry:

they go without them. Something might in time befrom the increased exertions to which producers would beby the market opened for their produce; but to suchof exertion, the habits of countries whose agriculturalconsists of serfs, or of peasants who have but justfrom a servile condition, are the reverse of favourable,even in this age of movement these habits do not rapidly. If a greater outlay of capital is relied on as the sourcewhich the produce is to he increased, the means must eitherobtained by the slow process of saving, under the impulseby new commodities and more extended intercourse (and incase the population would most likely increase as fast), orbe brought in from foreign countries. If England is toa rapidly increasing supply of corn from Russia or Poland,capital must go there to produce it. This, however, iswith so many difficulties, as are equivalent to greatdisadvantages. It is opposed by differences of language,of manners, and a thousand obstacles. arising frominstitutions and social relations of the country. and afterit would inevitably so stimulate population on the spot, thatall the increase of food produced by its means wouldbe consumed without leaving the country: so that, if itnot the almost only mode of introducing foreign arts and, and giving an effectual spur to the backward civilizationthose countries, little reliance could be placed on it forthe exports, and supplying other countries with aand indefinite increase of food. But to improve theof a country is a slow process, and gives time forgreat an increase of population both in the country itself,in those supplied from it, that its effect in keeping downprice of food against the increase of demand, is not likelybe more decisive on the scale of all Europe, than on theone of a particular nation.

The law, therefore, of diminishing return to industry,population makes a more rapid progress than improvement,not solely applicable to countries which are fed from theirsoil, but in substance applies quite as much to those whichwilling to draw their food from any accessible quarter thatafford it cheapest. A sudden and great cheapening of food,, in whatever manner produced, would, like any other suddenin the arts of life, throw the natural tendency ofa stage or two further back, though without altering its. There is one contingency connected with freedom of, which may yet produce temporary effects greater thanever contemplated either by the bitterest enemies or theardent adherents of free-trade in food. Maize, or Indian, is a product capable of being supplied in quantityto feed the whole country, at a cost, allowing forof nutritive quality, cheaper even than the potato. Ifshould ever substitute itself for wheat as the staple foodthe poor, the productive power of labour in obtaining foodbe so enormously increased, and the expense of maintainingfamily so diminished, that it would require perhaps somefor population, even if it started forward at anpace, to overtake this great accession to the facilitiesits support.

4. Besides the importation of corn, there is another resourcecan he invoked by a nation whose increasing numbers press, not against their capital, but against the productiveof their land: I mean Emigration, especially in the formColonization. Of this remedy the efficacy as far as it goes is, since it consists in seeking elsewhere those unoccupiedof fertile land, which if they existed at home wouldthe demand of an increasing population to be met withoutfalling off in the productiveness of labour. Accordingly,the region to be colonized is near at hand, and the habitstastes of the people sufficiently migratory, this remedy iseffectual. The migration from the older parts of theConfederation to the new territories, which is to alland purposes colonization, is what enables population

toon unchecked throughout the Union without having yetthe return to industry, or increased the difficulty ofa subsistence. If Australia or the interior of Canadaas near to Great Britain as Wisconsin and Iowa to New York;the superfluous people could remove to it without crossing the, and were of as adventurous and restless a character, and asaddicted to staying at home, as their kinsfolk of New, those unpeopled continents would render the same servicethe United Kingdom which the old states of America derive fromnew. But, these things being as they are — though aconducted emigration is a most important resource forlightening the pressure of population by a single effort- and though in such an extraordinary case as that of Irelandthe threefold operation of the potato failure, the poor, and the general turning out of tenant throughout the, spontaneous emigration may at a particular crisis removemultitudes than it was ever proposed to remove at once bynational scheme; it still remains to be shown by experiencea permanent steam of emigration can be kept up,to take off, as in America, all that portion of theincrease (when proceeding at its greatest rapidity) whichin excess of the progress made during the same short periodthe arts of life, tends to render living more difficult foraveragely-situated individual in the community. And unlesscan be done, emigration cannot, even in an economical pointview, dispense with the necessity of checks to population.than this we have not to speak of it in this place. Thesubject of colonization as a practical question, itsto old countries, and the principles on which itbe conducted, will be discussed at some length in aportion of this Treatise.