

CIRCULATION.—COUNTRY BANKS.

Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the SECOND QUARTER (April—June) of 1861; and in SCOTLAND and IRELAND, at the Four Dates, as under.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.			
DATES.	Private Banks. (Fixed Issues, 4'35.)	Joint Stock Banks. (Fixed Issues, 3'30.)	TOTAL. (Fixed Issues, 7'65.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2'75.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6'35.)	
	Mlms. £	Mlms. £	Mlms. £	1861.	Mlms. £	Mlms. £	Mlms. £	Mlms. £	Mlms. £	Mlms. £	
1861. April 6	3,38	3,11	6,49	April 6	1,43	2,42	3,85	3,26	3,29	6,55	
" 13	3,41	3,13	6,54								
" 20	3,38	3,09	6,47								
" 27	3,34	3,03	6,37								
May 4	3,31	3,01	6,32	May 4	1,53	2,45	3,98	3,36	3,16	6,52	
" 11	3,29	3,01	6,30								
" 18	3,26	3,00	6,26								
" 25	3,17	2,92	6,09								
June 1	3,11	2,83	5,94	June 1	1,76	2,77	4,53	3,32	3,01	6,33	
" 8	3,05	2,77	5,82								
" 15	3,02	2,74	5,76								
" 22	2,98	2,72	5,70								
" 29	2,98	2,72	5,70	June 29	1,63	2,65	4,28	3,04	2,78	5,82	

FOREIGN EXCHANGES.—Quotations as under, LONDON on Paris, Hamburg & Calcutta;—and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.

DATES.	Paris.				Hamburg.				New York.	Calcutta.		Hong Kong.	Sydney.	Standard Silver in London.
	London on Paris.	Bullion as arbitrated.		Prem or Dis on Gold per mille.	London on Hamburg.	Bullion as arbitrated.		India House.		At Calcutta on London.				
		3 m. d.	Agnst. Engd.			For Engd.	3 m. d.				Agnst. Engd.			
1861. April 6 ..	25.72	pr. ct.	0.6	2 p.	13.9½	pr. ct.	0.8	107	d.	d.	d.	pr. ct.	d.	
" 20 ..	.50	—	0.3	"	.7½	—	0.5	108½	"	"	"	"	60½	
May 11 ..	.57	0.1	—	"	.8½	—	0.1	105½	"	"	"	"	60½	
" 25 ..	.70	—	0.7	"	.9½	—	0.7	106	"	"	"	"	60½	
June 8 ..	.72	—	0.4	"	.9½	—	0.4	105½	"	"	"	"	60½	
" 22 ..	.70	—	0.5	"	.10½	—	0.5	106	"	"	"	"	60½	

JOURNAL OF THE STATISTICAL SOCIETY,  
DECEMBER, 1861.

The Progress of ECONOMIC SCIENCE during the last THIRTY Years:—an OPENING ADDRESS by WILLIAM NEWMARCH, F.R.S., as PRESIDENT of the Section (F) of ECONOMIC SCIENCE and STATISTICS, at the Thirty-First Annual MEETING of the BRITISH ASSOCIATION for the ADVANCEMENT of SCIENCE, at MANCHESTER, 4th—11th September, 1861;—with a REPORT of the CLOSING PROCEEDINGS of the Section.

[From the Notes of the Shorthand Writer.]

THERE is some danger at this time that undue importance may be attached to the achievements of Physical Discovery. Surrounded as we are by the great results which have been accomplished by Railways, Ocean Steamers, Telegraphs, Tubular Bridges, and Rifled Cannon, there is some danger, and it is not a small danger, that we may attach excessive and undue importance to the obligations which society owes to those discoveries—great and momentous beyond all question—and to the achievements which have followed them. I venture, however, to think that if we consider carefully the history of the last Thirty Years, we shall find that during that time there have been in operation certain powerful Economical and Social forces, the effects of which have been hardly less striking or beneficial than the effects which have flowed from the physical discoveries I have mentioned.

We shall find first of all that during the last thirty years, by the application of sound economic doctrines to subjects of Foreign and Inland Trade, a change has been produced so extensive that it affects not merely the population of our own country, but affects in a marked and beneficial manner the populations of most of the countries which form the commercial world. We shall find, further, that during the same period, by the application of sound principles to the subject of Taxation, we have succeeded in removing from amongst ourselves sources of danger and discontent which threatened the most lamentable consequences. We have also, during the same time, by the aid of larger views and more exact knowledge, succeeded in rearing up a long list of Colonies in the Eastern and Western Hemispheres on principles so sound, that they have borne the test of rough experience, and have now become landmarks in our legislation. By the application of larger and more accurate rules

of judgment to the subject of Education, we have succeeded in adding depth and breadth to the foundations of those habits of morality and order which in truth constitute the real superiority of the inhabitants of this country over the people of other parts of the world. We have in the fifth place, by the application of a similar careful and sound philosophy to questions relating to the Sanitary Condition of the country, already produced effects which it is impossible to contemplate without surprise and gratitude. By the application of Sanitary Science to the improvement of our dwellings, and to the cleansing of our towns, we have been able to accomplish a marked reduction in the annual rate of mortality; and we have done not a little to promote the further supremacy of our own race by largely improving and strengthening its physical type. Nor have we been less successful in discovering and applying effectual means for the prevention of Crime and for the establishment of reformatory agencies designed to render the occurrence of crime less frequent. In truth, so great has been the success which has attended this part of the labours of the last thirty years, that we are in some measure justified in hoping that a time may not be very distant when we shall be relieved almost entirely from the affliction and peril of what have been called "the dangerous classes." In the last place, we are entitled to say, that our success has not been small in dealing, since 1830, with the extensive and intricate subject of the Poor Laws. Those who remember what was the social condition of this country thirty years ago—before any systematic attempts had been made to settle the Poor Laws upon sound principles—will set due value upon the advance which has been made during that time; and will not fail to be thankful for the sound and satisfactory basis upon which this important part of our social legislation now rests.

Looking back at the changes and the experience of which this is a rapid outline, it appears to me that I shall not be in any danger of misleading the Section if I suggest, that probably the most conspicuous and important fact to be found in the history of Economic Science during the last thirty years is this;—namely, that while there has been no change in the objects to which it is directed—no change in the purposes intended to be worked out—while these objects and these purposes remain the same in their broad and general aspect, as they have been from the time of Adam Smith—there has been a marked change in the Methods according to which Economic Science is cultivated. It has ceased to be an abstract science,—it has ceased to be a system of subtle and ingenious reasonings. It has little by little, and by a process cautious and full of promise, become a science almost entirely experimental. We have learned that in all questions relating to human society,—in all controversies where the agency of

human beings has to be relied upon for working out even the smallest results—we have learned that in these inquiries the only sound basis on which we can found doctrines, and still more the only safe basis on which we can erect laws, is not hypothetical deduction, however ingenious and subtle, but conclusions and reasoning supported by the largest and most careful investigation of facts. This vital change of method, this substitution of observation and experiment (and for our present purpose the two words mean very much the same thing) for deductions arrived at by geometrical reasoning, seems to me to be the most prominent fact of the last thirty or forty years, as regards the progress of the branches of knowledge which more immediately interest us in this Section.

We are surrounded by evidence of the occurrence of changes closely analogous in almost every other division of human inquiry. A strong desire for evidence ample and accurate, an ardent craving after the results of the most patient investigation of large actual experience, and increasing distrust of doctrines and conclusions which do not rest upon such experience, are habits and tendencies of mind which have become prevalent not only among those who cultivate Economic Science, but among the cultivators of knowledge of nearly all kinds. We find this experimental and scrupulous spirit vigorously manifest in the pursuits of the Historian. We have seen it carried to a large, and frequently, perhaps, to an excessive extent in Archæology, and in the descriptions of art, and the kinds of knowledge which rest upon ancient precedents. We find it busily at work in Literature; incessantly digging up startling facts with which to pull down old and build up new reputations. We find it also happily in Politics, and there at least where the only lawful object is wise legislation, a regard for actual experience rather than a proneness to loose speculation must be almost an unmixed good. It appears to me, therefore, looking at the changes of the last thirty or forty years, that we are fully justified in accepting as one of the most conspicuous and fortunate of the results arising out of those changes, the introduction into the large class of inquiries which relate to the constitution and control of human societies, of an observing, cautious, and experimental spirit,—a spirit which leads men to accept no doctrine and place reliance on no conclusion which come to them supported only by hypothetical reasoning, however subtle and ingenious;—but on the contrary strongly disposes them to consider the teachings of Experience, if not as the exclusive, certainly as the chief foundation for leading opinions and practical measures.

It has been often said—formerly perhaps more frequently than at present—that some degree of reproach attaches to Economic Science, inasmuch as it is not purely a Science, but partakes largely

of the nature of an Art. I confess that this criticism seems to me to be scarcely a reproach at all. It seems to me also to proceed upon a hasty and imperfect view of the real difference between science and art—and especially of the science and art embraced in Political Economy. Science, according to the generally accepted definition, is simply a collection of rules and laws, and of statements of general results. The end of all Science is knowledge, simply and purely. It does not concern itself with precepts. It does not concern itself with applications and utilities. It confines itself to a specific declaration that such and such is the order of nature, and there its teachings come to an end. In the case of astronomy, for example—to select one of the most familiar instances—the functions of the astronomer, as a purely scientific man, are at an end when he has declared that the solar system and the planetary bodies exist and move in a certain order. It is no part of the functions of the astronomer, purely as such, to give precepts and advice as regards the practical application of the knowledge at his command. It is no part of his scientific functions, for example, to recommend that the results of his observations shall be reduced into the practical form of a Nautical Almanac and sold at a cheap rate for the safety of mariners and the benefit of calendar makers. Physiology, in like manner, gives no precepts. It limits itself, as a science, to the announcement that certain results, good or bad, flow from certain conditions; and it leaves to others the application of these discoveries to some useful end. Physiology, as a science, has no exhortations to urge as regards the establishment of hospitals, the provision of fire-escapes, or the proceedings of the sanitary officer. This is the state of the case if we consider human knowledge solely from the scientific level—that is, solely as a collection of results collected together because they are true, and not because they are useful or agreeable, or the contrary. But it seems to me, that in surveying human knowledge from this purely scientific level we are confusing ourselves with an unreal distinction, and misapprehending the intimate relation which exists between discovery and precept. The truth really is, that all sciences are more or less necessarily arts; that the connection between the scientific law and the precept founded upon it is so close and immediate that it requires no small effort of attention to satisfy one's self that it is possible to have a scientific law without a practical precept inseparably attached to it. Take, for example, one of the cases to which I have already referred. The astronomer finds, by means of his observations, that at a certain future time there will be combinations of heavenly bodies of such a nature that the occurrence will afford great assistance to navigation. Surely, the first impulse of a reasonable human being, under such circumstances, would be to convert the discovery into a precept, and

to take the most effective measures for deriving as much benefit as possible from the scientific fact. In like manner, the discoveries of Physiology, and improvements in the treatment of the sick, in the management of hospitals, and the cleansing of towns, are all essentially parts of the same train of thought, and consequences of the same antecedent.

But in the case of Economic Science the connection between the science and the art is still more emphatic and intimate than in any of the Physical Sciences. I have just said that not even the smallest problem in Economic Science can be worked out except by the agency, in some form, of human beings. From first to last the whole subject matter of this branch of knowledge is Man in Society, and the regulations which will best promote the happiness and comfort of men living in societies. The connection, therefore, in this case, between the science and the art—between the law discovered and the precept and practice founded on that law,—is so near and intimate that only confusion and error can ensue from unwise attempts to separate them.

There is another difficulty to contend with in connection with this subject, and that is the difficulty of finding sufficiently comprehensive, but also sufficiently precise expressions by which to describe or designate the range of topics which concern us in this Section. Economic Science is a technical term, applicable in strictness only to those inquiries which relate to the production, accumulation, and distribution of Wealth. But if we stop there—if we concern ourselves only in investigating the single subject of wealth—we shall but imperfectly acquaint ourselves with the leading influences which (apart from physical causes) determine the advancement and comfort of human communities. "Social Science" is a term which has been much used of late years, and although it is certainly not the happiest of descriptive phrases, nor a term which satisfies many of the desirable conditions, still it is probable that the time has come when by general consent we must attach to the words "Social Science" a definite technical meaning, and understand them to imply a range of topics considerably larger than is included in the scope of Economic Science, but still excluding a great number of subjects which the phrase "Social," if used in its ordinary meaning, would assuredly imply. If, for example, a person were carefully to set out all the influences which (physical causes apart) affect men in societies—that is all the social influences—it does not require much reflection to perceive that he would have placed before him a field of inquiry so vast that it would be presumptuous in the highest degree to attempt to grapple with it, and futile in the highest degree to attempt to define and describe it by any single phrase. In the first place, the foundation of any system of social order and administration



must be sought in Morality and Religion; and commencing with these we should find that rightly to apprehend social stability and progress we must extend our inquiries in some such order as the following, namely:—Political Economy, Jurisprudence, Municipal Law, Education, Sanitary Science,—closing probably with the Fine Arts and the art of Government. This is a field of inquiry manifestly so wide and diversified that it would be idle to affect to regard it as one subject, or to apply to it any single phrase of precision. We must clearly be content with a conventional and circumscribed view of what we agree for convenience to call Social Science. There is a kindred association, which is establishing itself rapidly in the public estimation, I mean the National Association for the Promotion of Social Science—an association which I may safely say took its origin in this very Section, for when it was found after long experience that the topics which came before us here were so manifold and extensive that we could not hope to deal with them satisfactorily, it occurred to some leading and active minds that it was desirable to form a separate association which should wholly occupy itself, according to a scheme of proceeding resembling that of the British Association, with questions of Social Science. Starting with the experience acquired at former meetings of this Section, and aided in no slight degree by the public opinion which those meetings had fostered and promoted, a large and powerful association has been rapidly established, and has already, in spite of opposition and ridicule in some quarters, secured for itself no mean place in the public favour. Looking at the proceedings of this important body, the probability seems to be, that by-and-by we shall come to understand by a sort of general agreement, that on grounds, at least of convenience, if not of strict etymology or exact definition, "Social Science" shall be understood to include the five kindred inquiries of Political Economy, Jurisprudence and Amendment of the Law, Education, Sanitary Science, and Statistics. These are five lines of inquiry, which all converge to the same point; and although many independent divergences occur in the course which they pursue towards that point, still the ultimate results are so completely the offspring of evidence and conclusions drawn from each of the five divisions, that it seems to be probable that before long we shall find it convenient to regard these five groups of topics as in reality branches of the same subject; and so completely branches of the same subject that we shall hesitate to accept doctrines which are not supported by reasonings and evidence which imply familiarity not with one group only of the five, but familiarity more or less extensive with the whole.

I have included Statistics as one of these five groups. Now I

am bound to tell you, that Statistics taken alone cannot properly be described as a science. I am bound to tell you, that in Statistics we have no such body of general laws as are to be found in other branches of inquiry, which no one hesitates to describe as sciences. We have, for example, in Statistics no such body of general laws as are to be found in dynamics, as are to be found in chemistry, or in physiology. But then we claim for Statisticians—and it is no small claim to put forward for any branch of knowledge—that it is the application of the Experimental or Baconian method to the several divisions of inquiry which relate to man in society. We say, that where there is no careful application of the Statistical method—in other words, where there is an absence of observation and experiment, so far as observation and experiment can be applied to men in societies—there can be but faint hope of arriving at the truth in any line of research connected with social problems. But we go further. We say, that we have already made sufficient advances in the application of Statistics during the last thirty, and more especially during the last ten or fifteen years, to be able to affirm that we begin to see our way to the establishment in several directions of what may be conveniently called Ultimate Statistical Units. We have, in truth, made no trifling advances towards the construction of an Economical and Statistical Chart, the results of which will be hardly inferior in exactness, as they assuredly will not be inferior in interest or importance, to the admirable charts already constructed of the geology or geography of leading States.

Let me tell you of a few of the principal subjects upon which we are arriving at ultimate statistical units. First, there are Vital Statistics—then Commercial Statistics—then Economical Statistics—fourthly, Trade Statistics—and lastly, Taxation Statistics. What do we mean by an Ultimate Unit in Vital Statistics? We mean, that by a careful series of observations extended over sufficient periods of time and applied to classes of people sufficiently different in their occupations and modes of life, we have been able to arrive at a result which expresses, with a high degree of accuracy, the annual death-rate which ought to prevail in a community which avails itself diligently of the appliances for preserving health which modern science and civilization have placed at our disposal. In this country, very much by the perseverance and skill of my friend Dr. Farr, who sits on my right, we have found by the application of careful statistical methods, carried on systematically year after year, that in a community of human beings inhabiting a country like our own and enjoying reasonable comfort, the rate of mortality in one year ought not to exceed 17 in the 1,000. In that numerical result, or rather in that Ultimate Statistical Unit, of 17 in the 1,000, as expressing the annual death-rate prevailing in this climate, in a popu-



lation living under circumstances not specially but ordinarily favourable, we have arrived at a conclusion of a solid and important kind. It is not a conclusion which I will venture to suggest to you may be placed on an equality with the sublime law of definite proportions discovered by your own Dalton; but we may fairly place it in the second rank of scientific results. Taking our stand on this Ultimate Unit of annual mortality, we are able to say that wherever the deaths greatly exceed the ascertained limit there is something amiss; and that an urgent responsibility rests on the inhabitants of a town or district in which an excessive death-rate prevails to lose no time in removing the causes which are inflicting an excessive waste of human life. I say that in this simple formula of 17 in the 1,000 we have one of those Ultimate Statistical Units which places in our hands, as regards the future, a definite kind of force, the value of which we cannot very well over estimate.

The same reasoning and the same inferences apply to the other four classes of Statistical results to which I have referred, but I cannot now detain you by considering them with minuteness. I will say only, that under the head of Economical Results we are making progress in determining for several countries the figures which in each represent the average earnings of ordinary unskilled labour, and the kind of food, clothing, and shelter which those earnings will purchase. That is to say, that by-and-by we shall be able to describe the Economical condition of different parts of the world as precisely and specifically as we are at present able to describe their geography or their ethnology.

But before I leave this part of the subject, let me make one observation further relative to Vital Statistics—and it is this, that probably no test can be suggested which is so exhaustive as indicating the real character of a civilisation as the rate of *Infant* mortality. We know pretty well what is the rate of infant mortality in a considerable number of our towns and country districts, and we know the corresponding rate in similar districts in other countries, and I am induced to think that in those cases where the infant death-rate is the lowest, there human life is maintained under the most favourable conditions, moral and physical. Consider what is implied by a low rate of infant mortality. It supposes a moral relation of the sexes. It supposes skill, care, and affection on the part of the mother, and effort and vigilance on the part of the father. It supposes wholesome dwellings and appropriate food; and still further, it supposes knowledge and intelligence sufficient to apply all these advantages in the best way. When then by means of statistical researches we show, that in a given place the rate of infant mortality is less than in some other, or than in almost any other, we have conferred upon that particular place a great benefit, for we have

shown that there human life goes on in a sober and orderly way, and that men and women have learned adequately to appreciate and understand the prize of existence placed in their charge.

Let me say here, that a meeting was held last year in London which was full of promise as regards the future advancement of scientific Statistics,—I mean the International Statistical Congress. We had there, representatives of nearly all the Governments of Europe. We had also representatives from some of the countries on the other side of the Atlantic. The efforts and labours of the Congress were directed to the establishment of methods whereby, in the different countries represented, the same processes may be followed in arriving at the same pre-arranged results; and by this and other means we have so cleared the path, that we are justified in expecting that at no distant date we shall have established over a large area of the earth a series of those Ultimate Statistical Units which will exhibit accurately, and free from any devices of rhetoric or arts of description, the real effects of the social arrangements and relations which prevail in different parts of the world.

I have told you, that Statistics cannot claim to be a Science in the precise sense of that term. I must now tell you that so far as Statistics are concerned I do not consider that any numerical results put forward by Statisticians are entitled to be called or regarded as statistical "laws." We have heard a great deal lately of these so-called "statistical laws." We have heard a great deal of the Necessarian conclusions which are said to flow inevitably from the evidence of a certain class of statistical results, or "laws." It appears to me, with all deference, that the term "law," as applied to any statistical result whatever, is a misapplication of the term. The utmost that Statistics can do is to express numerically the *average* result of any given series of observations of occurrences taking place under particular conditions among human beings. But in the case of a physical law, I would suggest to the Section that our knowledge is so much superior to any expression of mere average, that we can predict the result of any single event or experiment as confidently and accurately as we can predict the results of series of similar events. In the case of astronomy, for example, we can predict as certainly what will be the motion and place of one star on a particular day in a particular part of the heavens as we can predict the motions and places of hundreds of stars. In like manner in all the other natural sciences the power of individual prediction is founded, and founded wholly, not upon an "average" inference, but upon a certain knowledge of the rigid operation of a "law" which holds good as absolutely in single cases as in masses of cases. In dynamics we know perfectly beforehand what will be the result of any given experiment as regards

momentum under prescribed conditions, or as regards the movement of prescribed bodies through a specified medium. But in the case of Statistics—that is, in the case of knowledge which does not rise above the level of an “average” inference—we have absolutely no power whatever of prediction in individual cases, and only a very qualified power of prediction as regards masses of cases. Take, for example, that kind of statistical knowledge which has been carried perhaps to the greatest perfection because large pecuniary interests are dependent upon it—I mean the application of Statistics in estimating the duration of human life. Even there, extensive and systematic as is our knowledge, we have, I need hardly say, no power, as concerns any individual person, or any half-dozen persons, of hazarding an opinion whether they will or will not live for one year or for twenty; and even as applied to numbers of human beings the average duration of life at which we arrive by means of statistical inquiries amounts to no more than a probability, and a probability of a low order compared with the rigid exactness of such primary physical laws as those, for example, of gravitation and definite proportions.

It has been said sometimes, and especially of late years, that certain kinds of Statistics prove that the human will operates *necessarily* within the groove, as it were, of some recurring cycle. I confess it has always seemed to me that the great disturber of all statistical uniformity and averages is precisely the uncertain operation of the human will. Let me again repeat that Statistics, as applied to man in society, are no more than carefully recorded observations of occurrences which take place among a certain number of human beings living under certain conditions. But the actions of human beings are dependent upon ideas and convictions; and alterations in ideas and convictions inevitably change and disturb the nature of the kind of occurrences capable of statistical record. I suppose, for example, that thirty years ago it would have been easy to have constructed a table drawn from materials existing in Jamaica, showing the number of cases of ill-treatment of negroes by their English owners on the average of some term of years; and upon such a table it might have been possible to construct an ingenious Necessarian theory of the operation of the human will in the flogging of black men and women. But a change has taken place in the ideas entertained by the English people of the lawfulness of slavery. These ideas have attained the height of emancipation. Slavery has happily been put an end to, and the kind of statistical evidence I have pointed out has disappeared altogether. The same reasoning may be applied to a variety of other cases.

But as concerns the important class of Statistics which exhibit the average number of Births and Deaths, it is plain that such a record includes mainly physical events; for the number of births and

deaths occurring in a given time, in a given population, is obviously determined almost wholly by a class of physical causes—age, food, shelter, comfort—to which I need not refer in detail; and the same observation applies in a larger measure to marriages.

We may be reminded, perhaps, that there are other classes of events recorded and tabulated by statisticians which cannot be referred to physical causes—such as the average number of misdirected letters, lost umbrellas, and other minor casualties—and that these records present us with highly uniform results. I freely grant that many of these results are exceedingly curious; but I wholly demur to the suggestion that they supply any adequate foundation for so vast a doctrine as the Necessarian theory of the operation of the human will, or even for the reality of what are called “Statistical Laws.” I can only admit the validity of the term “law” where there is a power of accurate prediction in individual cases; and we shall scarcely be expected to believe in this power of individual prediction as regards misdirected letters or lost umbrellas.

I have been thus careful to point out to the Section what seem to me to be errors and sources of danger in some recent views of the province of Statistics, not, as you will easily believe, with any design of derogating from the dignity and value of statistical inquiry, but because I desire to be governed, from first to last, by that spirit of truth and candour which must guide all our investigations and discussions at these meetings; and because no good results can follow from the introduction into any department of knowledge of pretensions which are not justified by its scope and conditions.

I have said that the principal fact in the history of Economic Science during the last thirty years, has been the more systematic and extensive application of the Experimental Method throughout the entire range of questions with which the science is concerned. It is right that I should give you some examples of this change. The experimental method has been largely applied in every direction, but if I was asked to point out those directions in which, perhaps, the most marked results have been produced by its application in modifying conclusions which were previously entertained, I should select six subjects, which will be easily recognized as among the most important in the whole range of the branch of knowledge to which they belong. I should point to the application of the test of experience and observation in modifying the doctrines which formerly prevailed:—

First, as regards the conditions which govern the progress of Population in modern civilized communities;—second, as regards the true principles to be followed in founding and managing Colonies;—



third, as respects legal interference with Labour in factories and elsewhere;—fourth, as regards the leading doctrines relative to Currency Banking, and Prices;—fifth, as regards the nature, origin, and operation of Rent;—and sixth, as concerns the effects to be produced by a large and sudden increase in the quantity of Metallic Money in use in the commercial world.

I have enumerated these six subjects, and if the time and occasion were appropriate it would not be difficult to show that in each of them extensive and fundamental changes have been introduced during the last thirty or forty years by the application of the test of experiment and observation. I am not, of course, going to detain you by a discussion in detail of all six of these subjects. I will refer only to two of them. I will refer to the topics which relate to the Legal Interference with Labour—and those which relate to Currency, Banking, and Prices.

When I advert to the first of these topics—that of the Legal Interference with Labour,—I am aware that I am speaking in a place where the subject is far better understood than perhaps anywhere else; and in an assembly whose practical knowledge of the question far exceeds any knowledge I may possess, founded as that knowledge is upon theoretical inquiries only. Until about thirty or thirty-five years ago there were probably no portions of political economy which seemed to be more free from doubt than the doctrines which it then included as regards absolute non-interference by the State in bargains between masters and workpeople. If there was one economic canon which more than another seemed to all the writers from Adam Smith to Ricardo to be entitled to rigid observance, it was the rule of *laissez faire* in every part of the dealings between employers and employed. It was maintained that in such questions it is the function of the Government to stand altogether aside, and to leave the parties to settle their own differences as may seem to them to be best. And when we look back at the history of our own and other countries—when we remember the incessant and mischievous interference inflicted upon all sorts of occupations by syndics, guilds, and Government officers, from the days of Charlemagne down to our own time—when especially we recall the superlatively vicious legislation of France and Germany in this respect, century after century,—we cannot wonder that the founders of the science with which we are here concerned, were led to express, in the most distinct terms, their adhesion to the doctrine of *laissez faire*, especially in relation to employers and employed. And this doctrine requires but few qualifications so long as it is applied to adult males working singly, or in families, or in small groups, each man being free to make his own independent bargain. But when a new state of things was intro-

duced—when manufactures came to be carried on by large masses of human beings, closely congregated together, and including women and children,—then new conditions were brought into play, and it became necessary to re-investigate the principles which previously had been accepted as sufficient. This re-investigation led to those new doctrines of the necessity of State Interference, which ultimately carried the Ten Hours Bill. When these new doctrines were first heard of they were naturally met on the part of the capitalists by the objection that to limit the hours of labour would mischievously and fatally discourage capital in its application to manufactures. What was the answer to this objection? The controversy, as you know, extended over many years, and gradually it was proved by experiment and observation that when capital, as in the case of manufactures, depends for profitable results upon the employment of large masses of workpeople, a great proportion of whom must be women and children, it is the direct and plain pecuniary interest of the owner of the capital to take especial care of the physical energy and condition of his workpeople. Our friend Mr. Edwin Chadwick, whom we are glad to see here, will tell us, too, as the result of most elaborate investigations, that even as regards machinery in its most complete development, and involving, therefore, the least aid from manual labour, real efficiency of exertion does not mean unlimited hours of work, but skilled efforts judiciously applied during the best chosen parts of the day. Discussions and evidence, all pointing steadily to such conclusions as these, gradually introduced modifications into the former views of *laissez faire* as being in itself the perfect and sufficient rule for arrangements between masters and workpeople in manufacturing trades. I need not tell a Lancashire audience—speaking after many years experience of the Ten Hours Legislation—that the results are something of which all parties may well be proud. There is, in truth, a general assent that if there has been one change which more than another has strengthened and consolidated the social fabric in this part of the island—has cleared away a mass of depravity and discontent—has placed the manufacturing enterprise of the country on a safe basis—and has conferred upon us resources against the effects of foreign competition which can scarcely be overvalued—it is precisely the changes which have been brought about by the sagacious, and persevering, and successful efforts to establish in manufacturing occupations a sound system of Legal Interference with the hours of labour.

The second class of topics to which I have to advert are those relating to Currency, Banking, and Prices.

There used to be received, with scarcely any dissentients, three principal doctrines relating to a Convertible Paper Currency. It used to be held that fluctuations in the amount of bank notes in the

hands of the public operated in some direct manner on prices;—that consequently the convertible paper currency must be properly regulated, so that vicious fluctuations of prices might be prevented;—and thirdly, that what were called appreciation and depreciation of the currency, and not the operations of supply and demand, and capital and credit, govern the foreign exchanges, produce over-trading, and lead to financial disasters and panics.

But by a persevering and systematic application of the test of observation and experiment, it has been proved, by evidence so extensive and various that we may well claim for it the force of demonstration;—first, that fluctuations in the amount of a paper circulation strictly convertible into coin does not govern prices at all, but that prices are governed by supply and demand, and by operations of capital and credit. Second, that due and rigid enforcement of cash payment is the only wholesome regulation which a paper circulation requires;—and thirdly, that bank notes are no more than the mere small change of the ledger, and that the phenomena which are really worth attention are not infinitesimal fluctuations in the amount of bank notes, but changes in the rate of interest.

I am perfectly aware that these conclusions are still somewhat hotly contested by a large and intelligent party, and by a party in every way entitled to be heard. For myself I shared them with, and I chiefly learnt them from, perhaps the best, and wisest, and most accomplished person it has so far been my fortune to meet—I mean the late Mr. Tooke; and I am quite ready to take my share in defending doctrines which are known by his name.

Before passing to the next part of this discourse, I may here appropriately suggest that there is one result of our more exact knowledge, which may be regarded as a sort of corollary of the review we have just taken of some leading topics—and it is this result,—namely, that while it used to be very commonly said in the early days of Political Economy, and even within the compass of this generation, that though we knew a great deal about the problems which affect the production and accumulation of wealth, we knew very little about its Distribution. We are now beginning to see that if we properly understand the principles which should guide us in promoting the production and accumulation of wealth, we may safely conclude that the process of distribution will take care of itself in a very wholesome and efficacious manner.

I have referred to five classes of results with which Statistical inquiry is mainly concerned. Let me now state in outline, as shortly as I can, the groups of topics which may be considered to constitute the domain of Economic Science. These seem to me six-fold—namely, first, all such problems as relate to the real nature of

Wealth, and to the production and growth of wealth in a community;—second, all such as relate to the Exchange of commodities, that is to say, to inland and foreign Trade;—third, all problems relating to Taxation and Finance;—fourth, problems relating to Currency, banks, and prices;—fifth, problems relating to the Wages and the hire of labour, and the division of employments;—and lastly, problems relating to the functions of the State as regards Interference with the economic relations of its subjects.

With respect to the first *three* of these groups of problems, it is probable that no further important doctrines remain to be discovered. There is little further to be found out concerning the real nature of wealth, concerning the true principles of exchange, or concerning taxation and finance, beyond the conclusions already established and expounded.

The fields of inquiry to be still explored and cultivated, are those which lie in the direction of Currency, Employments, and Interference by the State; and if I may express an individual opinion, it would be to the effect that it is probably, as regards the last of these subjects, namely, Interference by the State, that the most remains to be done, and difficulties of the gravest kind remain to be surmounted. We seem to be gradually arriving at the conclusion—and a conclusion founded on no slight evidence—that as society advances, especially in an old country,—as social relations become more complex,—there grows up a class of difficulties which cannot be dealt with satisfactorily by individual exertion, and therefore a class of difficulties which must be dealt with by the State. While on the one hand we are bound to maintain a salutary dread and a constant suspicion of the interference of the State beyond the narrowest limits, so on the other hand we cannot disguise from ourselves that there are a large class of cases in which individual agency wholly fails to protect the plainest individual rights.

The conclusion of the whole matter seems to be, that as the result of the last Thirty Years, full as that period has been of scientific achievements, we may justly claim for the services rendered by Economic Science and Statistical Inquiry, a place in the first rank.

That in the second place we may safely consider that we have now arrived, in these branches of knowledge, at a kind of intermediate point at which, after long debate, many of the earlier controversies are finally settled, and from which we see our way to a higher level.

That thirdly, the least doubtful result of our experience has been the discovery that the most solid progress is made by guiding ourselves in the main by close observation of facts, and by employing



speculative and hypothetical reasoning under the most cautious conditions, and always with distrust and reluctance.

And lastly, that the time has perhaps come when we may with advantage bring into close contact, as departments of the same subject, several of the branches of inquiry which are specially devoted to the study of social phenomena.

But there is a larger moral behind these conclusions. What is it that has made the last thirty years an age of revival and restoration in the largest sense? Is it not that we have come vividly to perceive two things, namely—first, that human life is fitted for higher ends than to be given up to incessant labour and devoted to the pursuit of excessive gain; and second, that for the attainment of these higher ends we must cast aside all false supports and contend with no hollow earnestness for the highest place among modern civilized States. It is no small thing for a community to become convinced, as we have become convinced, that it is possible to work over much—that material wealth, wholesome and reasonable in its right place, may be won at too great a cost—that something real is to be gained by allegiance to Truth for its own sake—and that overflowing comfort and social rank are, after all, not idols of the most worthy type. Nor is there any occasion to affect sentimental grounds for this less material philosophy—for it may be stated as a kind of universal corollary of all economic systems, that no societies so rapidly pass away as those which pursue only material objects. To be efficacious, even for its own ends, wealth must be used as an instrument; and to use it rightly there must be intelligence, taste, and imagination, as well as industry, frugality, and skill.

In this country, also, we must be watchful and patient in our search for new truths. We are engaged in a fair and open, but also in a sharp and earnest rivalry with all the world, and the victory must fall to that competitor who, other things being equal, has on his side the most profound and extensive knowledge. There are certain landmarks in all branches of knowledge which no wise man will attempt to disturb, except upon the strongest grounds. Still, subject to these reasonable restraints, it is salutary that the lists should be kept freely open to all comers. If the assailants of received opinions are in error they will fail, and their failure will add new strength to previous conclusions. If they succeed, they will become public benefactors. We are not, however, to be credulous or weak-minded. We are to be reasonably jealous of the cry of new lamps for old—remembering well how often the real meaning of the cry is an audacious invitation to exchange diamonds for dross. But we are also to remember that the most efficacious conservatism of the past is to present an open countenance, and to apply an

exploring hand, to the novelties of the present. To deal with them frankly, courteously, and plainly. To welcome them if they be true, and expose them if they be false.

If we pursue this policy we need not trouble ourselves about the time to come. The world is not put together so unskillfully that it is in danger of falling to pieces when the warfare is directed only against ignorance and its evil brood. We need not speculate on the moralizings of some future Australian islander over the ruins of London. Such a traveller is far more likely to find a palatial city spreading in graceful terraces along both sides of the Thames until Windsor Castle becomes a west end mansion, and suburban villas are scattered over the hills of the White Horse.

No instance can be found of the decay of a community in which the humbler classes, in full possession of personal freedom, and wholly apart from any artificial reliance or support, could each by their own labour earn the means of substantial independence. If for any length of time a community be strong and sagacious enough to solve practically the great problem of combining the largest and most orderly freedom, with ample wages, earned in fair competition with all the world, we may depend upon it that the foundations of such a State are too firmly set to be shaken by any ordinary catastrophe. And it is because in this country we have done not a little during the last thirty years to discover and fashion the corner stones of so noble and solid a fabric, that we are justified in looking towards the future with hope and confidence.

CONCLUDING PROCEEDINGS OF SECTION F.—*Tuesday,*  
10th September, 1861.

The following report of the concluding proceedings of the Section on Tuesday, the 10th September, is from the "Times" of the following day:—

The Right Hon. J. Napier proposed a vote of thanks to the President for the very efficient manner in which he had discharged his duties in presiding over that important Section. They had sat for a week, and during that time every variety of subject had been brought forward; and they had had the advantage of the skill and masterly ability of the occupant of the Chair. He was one of a class of men who were peculiarly entitled to respect—men who by the self-elevating power of intelligence and vast industry had raised themselves to a distinguished public position, and who stood well with all their well-thinking countrymen. He rejoiced to see him in the chair, his presidency harmonizing so well with the position of the President of the Association (Mr. Fairbairn), who was the honour, and ornament, and praise of the town. He was sure they would all have the greatest pleasure in passing a vote of thanks to his friend, Mr. Newmarch, for the able, efficient, and instructive manner in which he had discharged the duties of President of that Section. (Cheers.)

The Mayor of Manchester said he had much pleasure in seconding the resolution. All of them must have derived satisfaction and profit in attending the Section; and especially in listening to the clear and perspicuous manner in which the President had stated the merits of every question which had come under discussion.

The resolution was carried amid general applause.

The President said, I am very much obliged to you, ladies and gentlemen, for the vote of thanks which you have been good enough to pass for the very humble services performed by me in this chair. I certainly came to Manchester fully prepared to carry out so far as I could any duties which might fall upon me; and I am glad to find that the way in which those duties have been performed has met with your approbation. (Hear, hear.)

I will take the opportunity which is now afforded to say a few words in review of what has taken place in this Section during the week.

I cannot but lament that our time has been insufficient for the task we had set ourselves. We certainly have made some advance upon the arrangements which have prevailed at former meetings of this Section; and I hope that next year, and in future years, we shall succeed more entirely in confining our labours to such questions as belong properly to Economic Science. There is less reason why

questions of a general nature should be obtruded here, since there is a separate association for the advancement of social science, where questions of a general nature may be introduced with more advantage, and discussed with more benefit. But so far as our labours have proceeded, I find that we have got through between forty and fifty papers, which will admit of being somewhat distinctly classified.

In the first place we have had a series of papers, relating to what I may call Lancashire topics. Among these I will give the first place to an excellent paper by Mr. J. Shuttleworth, pointing out to us the working of the Manchester Gas Act; Mr. Chadwick gave us a great deal of valuable information on the progress which has been made by Manchester and Salford during the last twenty years. It was to be expected that a meeting of this kind held in Manchester could scarcely be considered effective unless the question of Cotton was discussed; and we have largely benefited by papers read by Mr. Bazley and Mr. Ashworth; and we had also a short paper from Mr. Alderman Neild, which was highly acceptable, inasmuch as he stated facts of an order which we are not always able to obtain. We had a paper from Dr. Strang on the Embroidery trade of Scotland and Ireland. Also, under the head of Lancashire topics, we had a valuable paper from Dr. J. Watts, on Strikes. We had a series of papers on Co-operative societies, beginning with one by Mr. Potter on the general principles of the question, and followed by two statements from Rochdale, informing us in a very succinct and clear manner of the results of the remarkable experiments going on in that town.

The second group of papers related to questions purely Statistical. First in this list I must refer to a remarkably excellent paper by my friend Professor Rogers—a paper compiled by him during the last few months with so much labour, perseverance, and skill, and containing a collection of Prices in this country in the sixteenth century, the period of the first influx of gold from the New World. I regard that paper as one of the most valuable fruits of the Statistical Congress of last year. I hope it is but the precursor of many more, and that the example which Professor Rogers has set will lead to similar researches being undertaken and carried on not only in this country, but in other parts of the world. (Hear, hear.) Dr. Farr gave us some acceptable information on the health of the British Army—a subject with which he is officially connected, and upon which he is eminently qualified to express an opinion. Then we had a valuable paper from Mr. Purdy on the comparative Pauperism of England, Scotland, and Ireland; and we had also an elaborate paper from Mr. Valpy, stating, in a convenient form, facts relative to the Trade between this country and France. We have to-day had several papers on the late Census, beginning with that of Mr.



Hammack, who comes among us speaking with the authority due to one of the chief officials connected with the operations by which the enumeration of the population has been carried on and completed. We have had also a statement from Dr. Strang of the results of the late Census as regards Scotland. On Saturday we heard from Colonel Sykes, one of the oldest and staunchest friends of this Section, an elaborate paper on the trade of India and China.

The third division consists of questions purely Economical. I confess I should have been glad if we could have had more of those papers, and I again repeat the wish I have already expressed, that in future years and in other places where this association assembles—and I think we may fairly assume that Section F will remain an integral part of the association (hear, hear)—a larger number of papers of a purely economical nature may be read—papers raising, as that of Professor Rogers to-day, purely economical questions, and going straight to some great doctrine, the discussion of which must be attended with good results. Foremost in this group of economical topics is the series of papers on national Taxation. Those papers you all will remember, inasmuch as they were before us only yesterday; but as it fell to my lot to take a leading part in the discussion, I pass them over simply with this reference. As regards special taxation, we had a timely paper from the Rev. Canon Richson, on the Income Tax—a paper which there is reason to hope may lead to ulterior results. (Hear, hear.) Under the head of distinctly scientific subjects, we had a second paper from Professor Rogers, “On the Definition and Incidence of Taxation;” and we have heard to-day an address from Mr. Fawcett, “On the Effects of the New “Gold Discoveries.”

In the fourth place, on general topics we have heard this morning Mr. Heywood on the subject of “Endowed Schools;” Dr. Hume, “On Education in Liverpool;” a short and interesting statement from Captain Donnelly “On the Progress made in the Government “Examinations in Science;” and also a paper by Mr. Ashworth, “On Capital Punishments;” while yesterday afternoon we were instructed by hearing Mrs. Fison dilate so charmingly in the midst of us “On Sanitary Reform.” Beyond these there were several contributions, in themselves of a minor kind, but well worth listening to, and raising points which I am sorry the Section had not time to discuss as they deserved. The discussions which have taken place have been distinguished, I think, beyond any occasion I can recall in connection with these meetings, by earnestness and courtesy, and by close adherence to the points which it was material to consider. They have been distinguished by these qualities in a happy and prominent manner. So completely has this been the case that I hope I may indulge the belief that scarcely any members of

the British Association who, during the last four or five days, have done this Section the honour of attending it, will carry away any recollections which are not of an agreeable order; that they will look back upon this meeting as an occasion on which they heard many new truths, or as a meeting at which they first learnt to regard important questions from a new point of view. (Cheers.)

Now, ladies and gentlemen, allow me, in conclusion, to say, that for the success which has attended our meeting here, we owe a deep debt of gratitude to every party connected with the city of Manchester. From the Mayor of the city down to the meanest cabman, I believe there is not a single individual throughout this great community who has not felt it to be a special personal obligation to do what lay in his power to promote the success of the meeting. (Cheers.) I, therefore, in your name, and in the name of Section F, tender my best thanks in the first place to the Municipal authorities who are represented on this platform by the worthy Mayor of the city. I thank, in the second place, the Commercial community for the munificent manner in which they have thrown open their establishments, and for the arrangements they have made for our benefit and amusement. I tender our thanks, too, to the private inhabitants, who have exercised so wide a liberality in throwing open their houses for our entertainment and reception; and, in the fourth place, I tender our best thanks to the local Committee and the local Secretaries, who not merely during the last week, but for a great many weeks preceding the opening of the meeting, have been untiring in their exertions to contribute to our comfort during the proceedings. (Hear.) In return for all these favours conferred, we are entitled to believe that the meeting has been productive of no small amount of good, and that the seeds here sown will blossom and fructify luxuriantly in the time to come. I will only add, as regards myself, that if I have in the least degree contributed to that end, I shall be amply repaid for the labour I have undertaken. (Cheers.)

A vote of thanks to the Secretaries was proposed by Mr. Webster and seconded by Dr. Farr.

In responding Professor Rogers said the more they saw of Manchester the more they liked it.

*The HEALTH of the BRITISH ARMY, and the EFFECTS of RECENT  
SANITARY MEASURES on its MORTALITY and SICKNESS. By  
DR. FARR, F.R.S.*

[Read before Section (F), at Manchester, on Saturday, 7th September, 1861.]

LORD HERBERT of Lea, in the prime of life and in the midst of his labours to improve the Health of the British Army, is dead, and his loss has been felt by his countrymen, who justly appreciate the services of their departed statesmen.

The defects which had before been expressed in the lifeless figures of returns struck every heart when they appeared in the thinned ranks before Sebastopol, in the sick-freighted ships of the Black Sea, and in the hospitals of Scutari. From his position, Mr. Herbert felt these defects more poignantly than any of us, and since that time, neglecting the enjoyments which high rank and a splendid fortune placed at his command, he devoted himself to the sanitary reform of the army—first in a Royal Commission, then in commissions for carrying out its recommendations, and, lastly, as Secretary of State for War in Lord Palmerston's administration. Notwithstanding the heavy duties of that office, he continued to act in a Royal Commission; and some of his last recorded words were inquiries into the means of saving the lives of our soldiers who perish in hundreds from the bad sanitary arrangements, rather than from the climate of India.

His frank and winning manner, his knowledge, and his eloquence enabled him to overcome many obstacles; and he had some courageous colleagues, among whom I must name as the foremost Florence Nightingale who shares without diminishing his glory. The difficulties he encountered can only be understood when the history of these years is written. Labour keeps us alive, so I cannot presume to say whether his life was cut short by his harassing work; but Sidney Herbert was animated by the feelings of him in his ancestral line,\* who, when he lay on the battle-field fainting and thirsty from the loss of blood, resigned the glass of water to the dying soldier with the words, "Thy necessity is yet greater than mine." Lord Herbert—I appeal to all who knew him—loved the soldier so well, that for his sake, and to promote the efficiency of the British army, he would willingly have laid down his own life.

Happily before his death he witnessed some of the results of his measures: he learnt the marvellous sanitary success of the China expedition, he received the first annual report of the Director-General of the Medical Department of the Army, showing "a

\* Sir Philip Sidney.

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"remarkable reduction in the mortality of all classes of troops," and, as a good and faithful servant of the Crown, he received a signal mark of the gracious approbation of his Queen.

Lord Herbert did not think it enough to point out evils in a report; he got commissions of practical men nominated by Lord Panmure, placing himself at their head, to put an end to these evils. The results of one of these commissions are described in a report by Dr. Sutherland, Dr. Burrell, and Captain Galton, and its measures for improving the sanitary condition of barracks and hospitals are so well conceived, that they deserve to be studied by all who take an interest in the health of armies. The sanitary and medical reports of which Dr. Logan and Dr. Mapleton give samples, with the accompanying papers, will every year increase in value. The commission for introducing improvements in the vital statistics of the army, consisting of Lord Herbert, Sir Alexander Tulloch, and myself, laid down an elaborate plan for the observation, record, and analysis of the sickness, diseases, and casualties of the army at home and abroad, in peace and in war. That plan is in operation; and I request your attention to some of the results deducible from the first report.

Under the new system, an exact account is kept of the diseases of every soldier from the day he enters to the day he leaves the army; and the returns are so arranged as to exhibit the diseases of every regiment separately, as well as the amount of disability, invaliding, and death produced by each malady, and, as far as possible, by each conspicuous cause. At the end of every week the Director-General receives from each corps a return of its state and of its changes. The contrast at Aldershot on trial was found to be remarkable in different regiments, and so clearly demonstrates the utility of publication, that I trust this remarkable weekly table will ere long be promulgated. The variable sanitary state of the army is thus brought clearly before the eyes of the Medical Department, the commanding officers, the Commander-in-chief, and the Secretary of State, so that evils, instantly known, can often be suppressed as they arise. The books are now made portable, and so simplified, that they can be kept in the field as well as in barracks.

The annual report is to contain a classification of all the observations of the year, in the nosological form adopted by the Registrar-General. The first report has been prepared, with his wonted ability, by Dr. Balfour, from the old returns partially; and, therefore, presents an incomplete view of the whole subject. But the results, so far as they go, are as interesting as they are important.

The army is not in England a repressive police force: with the gallant volunteers, the militia, and the royal navy, it guards our coasts, protects the empire, and is ready to put forth the great



power of England, should the peace of Europe ever be madly broken. The lives, the industry, the wealth, and the honour of the country are safe under its standards. Friendship with all our neighbours is the desire of the whole nation; but surrounded as we are by great warlike Powers, and by dynasties kept afloat on military glory, the importance of the efficiency of the army cannot be overrated. Now that efficiency depends primarily on the health of the troops; the health being expressed by the relative numbers of healthy, sick, and dying, out of a given strength.

I first request your attention to the state of the army at home. That consists of different arms, and with embodied militia, its strength in 1859 was (omitting commissioned officers) 90,763, including, besides complete corps, detached companies of regiments in India and elsewhere, in what are called depôts; of which the advantages are, to say the least, very equivocal. The army consists of men in the prime of life, between the ages of 20 and 40, very much under control in every respect, but generally unmarried, and living hitherto together in barracks. We contended that, whereas 17 in 1,000 of these men at home had died annually, a body so selected, well fed, well lodged, and well handled, morally and physically—admitting only recruits satisfactory to the examining medical officer, and parting constantly with its invalids—should not experience a higher rate of mortality than that expressed by 8 in 1,000; the rate of mortality actually experienced by the population at the corresponding ages in the healthy districts of England. This result was nearly achieved in the corps at home in 1859. The mortality of the Foot Guards had been 20 per 1,000 (1837-46), and fell to 9; that of the infantry of the line had been 18, and fell to 8; which was also the mortality of the cavalry, the engineers, and the artillery. Some obvious sanitary arrangements were introduced, and instead of being shut up in towns, many of the men were sent to healthy camps: the above are some of the results. The annual deaths among all arms of the service at home had been 17·5; the deaths at Shorncliffe and Aldershot in the three years 1857-58-59, were at the rate of 5 in 1,000.\* The previous excess was referable to zymotic diseases, such as fevers, cholera, diarrhoea—and to consumption; the effects of crowding in barracks, of bad ventilation, bad water, bad drainage, badly chosen sites, bad cooking arrangements, and the absence of the means of cleanliness.

The sanitary measures were commenced at home, but in Canada and the North American stations, in the Mediterranean, in the West Indies, in St. Helena, in the Mauritius, and in Ceylon, improvements are observable. India, where we have 80,000 English troops, remains to be dealt with by the India commission.

\* "General Report of Barrack and Hospital Commission," p. 12.

The colonies of North America, Australasia, and the Cape of Good Hope, are for British troops genial climates, differing much in their meteorology, however, from England. In Newfoundland, Nova Scotia, New Brunswick, and Canada, where 4,789 troops were stationed, 43 died; and the mortality was at the rate of 9 in 1,000. Comparing the rates of mortality in the ten years, 1837-46, with those of 1859, we have these results: the rate in Newfoundland fell from 11·5 to 4·8; in Nova Scotia and New Brunswick from 16·0 to 7·2; in Canada from 17·4 to 10·4. The proportion of sick was greatly reduced at the same time. Exposure to aguish ground, the bad sanitary state of the towns, excess of spirit drinking, and overcrowding in the barracks, are noted evils in North America. A most successful expedition of troops to found the capital of Columbia was dispatched, and the selection of the site, the food, clothing, employment, instruction, and amusement were excellent; so that out of 150 men only one died, by accidental drowning. The women and children, equally well provided for, were equally healthy. Dr. Seddall gives an interesting account of this model military expedition into a new country.

The sway of the Secretary of State for War extends over the continent of North America—from Newfoundland to Fraser's River and Vancouver's Island, and it also reaches the southern hemisphere, where, in Australia and New Zealand, 2,839 troops were stationed, of whom 26, or 9 in 1,000, died.

At the Cape of Good Hope the average strength was 4,322. The mortality per 1,000 was at the rate of 11 among 3,096 men on the eastern frontiers, 12 among 562 men in Natal, and 32 among 664 in Cape Town. The latter high rate was the result of the introduction of the 59th regiment from China; so if we exclude that regiment, the mortality of the army in the Cape Colony was 12 against 16 in former years. The sickness of the 59th rapidly declined shortly after its arrival at the Cape.

Bermuda—in the Atlantic, lying between Canada and the West Indies—enjoys a delicious climate; yet there, in the year 1843, yellow fever had cut off one-sixth part of the troops serving at St. George's; and the mortality in the years 1837-46 was at the rate of 34 in 1,000. 1,074 troops were stationed on the island in the year 1859, and the deaths were at the rate of 14. The barracks are defective, and half of the force in the summer months was placed under canvas, with most salutary results.

In St. Helena—another small island, but within the tropics—465 men were stationed, and 4 died,—two by accident—the fall of a rock, and of a tree. Two invalids sent home also died. The mortality, exclusive of invalids, which was at the rate of 17 fell to 9 in 1,000. A regimental garden furnishes abundance of vegetables; and

fresh beef or mutton is issued on three days instead of two. The inferior salt beef and pork from the Cape, is to be superseded by better articles from England for the other four days of the week. The relief of the crowded barracks by encamping the men does not appear to have been resorted to: cases of fever and intemperance are noticed.

The Mediterranean stations have an island character, and the temperature is much higher than it is in England. In this sea we have 14,123 troops,—5,153 in Gibraltar, the western gate of the Mediterranean; 5,310 in Malta, interposed between Sicily and the north of Africa, on the way to Egypt; 3,660 in the Ionian Islands, lying against Greece and the opening of the Adriatic. The mortality in Gibraltar, which had been at the rate of 14, was at the rate of 8 in 1,000 in 1859. Malta was as fatal to its garrison as it had been before; 19 in 1,000 died. Out of a strength nearly equal, 40 men died in Gibraltar, and 101 in Malta. The fevers in Gibraltar were apparently increased by over-crowding; and it is worthy of remark that the 25th Regiment, 1st battalion, encamped on the isthmus, had the least number of attacks of continued fever (55 per 1,000), while the 100th regiment, recently raised, suffered in the barracks to the greatest extent (194 per 1,000). The water supply is limited and the drains are defective. But in Malta, continued fever, dysentery, and diarrhoea were much more fatal, as they caused 10 of the 19 deaths per 1,000. The water in the tanks was bad; the barracks were over-crowded; and the heat was excessive in the third quarter of the year, when the epidemic was most fatal. It was not the hot African winds that slew these troops, for the mortality was localized, falling most severely on the Rifle Brigade and on the 2nd battalion of the 23rd Regiment, quartered in the lower part of the fort of St. Elmo, which, almost on the sea-level, is inclosed so as to exclude the breezes. Across the small parade ground in front of the barrack pass the contents of the sewers from the military prisons, accumulate there, and infiltrate the earth in the neighbourhood. Offensive gases escape, and their liberation was facilitated by turning up the earth to lay down gas pipes. The fever raged until the rain began to fall, and cool weather set in.\*

In the Ionian Islands also, although the general mortality fell from 18 to 13, fever prevailed in Corfu; so that while of 997 men in Paxo, Santa Maura, Cephalonia, Zante, Ithaca, and Cerigo, only 2 died; out of 2,663 in Corfu and Vido 41 died. The troops are everywhere affected by the sanitary state of the population near which they are stationed; and the sanitary state of Corfu is most defective: the sewage renders the tideless sea putrescent, and sometimes the offal of fifty cattle is thrown in a day into the seething waters from the slaughter-house at Fort Neuf. Now troops are

\* See Report, p. 38—39.

stationed in that fort. Little can we wonder, then, that typhoid fever and scarlatina smote the men; so that by the former 16 per 1,000 died in the 2nd battalion of the 4th Regiment. The 2nd battalion of the 2nd Regiment had two companies under canvas at Fort Abraham, and the mortality of the regiment by this disease was at the reduced rate of 5 in 1,000.

Their causes are declared by the zymotic character of the diseases of the force in the Mediterranean: dysentery, diarrhoea, fever (typhoid or typhus), and ophthalmia. The invaliding from the stations is considerable (.008); Malta sent 20 men home with bad eyes.

One of Lord Herbert's last acts in office was to dispatch Dr. Sutherland and Captain Galton to inspect the barracks, where so large a force has hitherto suffered so much; and we heartily wish them success. They may, perhaps, by sanitary teaching in commanding points, throw light on the regions where the rulers spread ignorance and fatalism, fever and plague, around the Mediterranean sea; for those beautiful lands have in them all the elements of abounding health and life.

In the WEST INDIES 3,659 troops were stationed, and the mortality was at the rate of 16 in 1,000; varying from 6 in Barbadoes, 14 in Jamaica, 14 in British Guiana, to 90 in Trinidad, and 20 in the other islands. The coast of tropical America is the native soil of yellow fever; and these islands of the west, extending from the Gulph of Florida to Trinidad at the mouth of the Orinoco, are subject to its visitations, as they are to earthquakes and hurricanes; but by ascending from the fertile alluvial coasts through rich valleys and magnificent forests to the heights of the mountains, we pass into salubrious fields, and breathe under a purer sky. The British troops, therefore, may, either by a happy selection of stations, be so placed as to be in little danger; or, they may be exterminated in bad barracks in the close malarious marshes of the plain. The high mortality of the troops in Trinidad was the result of yellow fever, which was apparently generated in St. James's Barracks, with its faulty drains,—scarcely ever flushed except during the heavy rains. The epidemic ceased when the troops were encamped on the savannah, and it did not spread over the island. A commission was subsequently appointed to select a hill-site; and, if troops are to be kept at all on such an island, the site about 2,200 feet above the sea-level, selected by Dr. Jameson, appears to be the most eligible.

Vegetables are furnished in sufficient abundance everywhere in the command except in St. Lucia; and the commissariat supplies fresh meat on six days, salt beef or salt pork on one day of the week. Formerly salt meat almost exclusively was given, which, by generating thirst, was an incentive to spirit drinking,—that bane of men living a listless life in the tropics.



In the twenty years, 1817-36, owing to evident causes, the mortality of British troops so moderate comparatively in 1859, was dreadful; they died through these long years at the average annual rates per 1,000 of 59 in Barbadoes, of 123 in St. Lucia, of 106 in Trinidad, of 84 in British Guiana, of 61 up to 307 in Jamaica!! At that time the troops in Jamaica "were almost entirely quartered in the plains, where the sources of fever abound;" whereas during 1859 three-fourths of them were stationed at Newcastle, on the hills 3,800 feet above the sea, where their mortality was at the rate of 8 in 1,000; while the mortality of the few men retained on the lowlands was still at the rate of 35. This remarkable improvement in the West Indies originated in the army medical reports instituted by Sir James McGrigor in 1816, but first digested by Mr. Marshall, Sir Alexander Tulloch, Dr. Balfour; and it dates back to, and adorns the present Earl Grey's administration of the War Office. Much, however, remains to be done if the present force is to be retained in the islands, or in Guiana on the continent. Ophthalmia and miasmatic diseases will recur unless the whole of the sanitary arrangements are revised and placed on a sound footing.

The tropical island of the MAURITIUS, over against Madagascar, on the way to the East Indies, is, like Jamaica, mountainous, well irrigated, fertile, and the centre of storms. 1,254 troops stationed there lost twenty men by death; so the mortality was 16 in 1,000, and half of it by miasmatic disease, namely, fever, diarrhœa, and dysentery. The fever portion of this was mainly brought from India; the diarrhœa and dysentery supervened in the 2nd battalion of the 5th regiment on arriving from England. The site of the hospital at Port Louis is objectionable; but the selection of a better depends upon the colonial funds, which we may hope will be forthcoming, if 1,254 of the best British troops are kept there, for, among other reasons, the protection of the islanders.

In Ceylon 913 British troops were stationed in 1859; and the mortality, which in 1837-46 had been at the rate of 42, fell to 32 in that year. This tropical island, covered with verdure, flowers, trees, and the most varied forms of animal life, has a low maritime belt, and a table-land surmounted by lofty summits, down which perennial streams flow—or fall in cascades—through the gorges of the valleys into placid rivers. Yet the diseases—diarrhœa, dysentery, and cholera—imply that the troops get bad water; and they were in fact stationed in great numbers at Trincomalee, and on the peninsula of Colombo, where the water supply is defective. While 76 was the rate at Trincomalee, the mortality at Kandy, 1,467 feet above the sea, was at the rate of 7 in 1,000; and there can be no doubt that by good arrangements the health of the

troops in future years may be sustained at a high standard in this "jewel of the Eastern seas."

We have arrived now on the frontiers of the Indian empire, where more than eighty thousand British troops are distributed over the presidencies and provinces around the Ganges and the Indus. However successful the East India Company may have been in the acquisition of territory and revenue, they did not discover the secret of maintaining in health the European troops in India. The men perished at the rate of 70 in 1,000 annually down to a recent date; and now that their numbers have been so largely augmented, the question has grown in importance. The Secretary of War had no direct control; so the army in India does not figure in the Report. Lord Herbert knew the full importance of the question as well as its difficulties; and by the command of Her Majesty a commission was constituted to inquire and to report on the sanitary improvement of the Indian army. Lord Herbert had served on commissions under administrations of which he was not a member; and with like patriotism Lord Stanley accepted the office of chairman. The sanitary reform of the Indian army Lord Herbert bequeathed, not vainly, I believe, to Her Majesty's Government.

The report, glances at China, and displays the deplorable destruction of our troops at Hong Kong, even in the year 1859. It also records the fact that, in conformity with the New Medical Regulations for Field Service, a sanitary officer was attached to the Quartermaster-General's Department to the expeditionary army, which marched unscathed through an insalubrious country on Pekin; all the wisest sanitary arrangements having been made at home, and efficiently carried out by the medical officers in China in conformity with their instructions. The commanding officers, Sir Hope Grant and Sir Robert Napier,\* being men of the highest intelligence, made the new sanitary system an element of military success.

This was Lord Herbert's crowning work.

He left much unfinished abroad; and the army in India is devastated by zymotic disease. So constituted was he that his own short-comings dwelt on his mind. Still a great result had been realized in his lifetime: in England hundreds of lives had been saved; indeed, the numbers of a battalion living in arms at the end of the year 1859 would, at the previous rates, have then lain buried in their graves. Severe sickness also decreased, and the vigour of the whole body of healthier men no doubt increased in proportion.

The Report accounts for a part of the reduction in the mortality by the excess of recruits, and we know that the health of masses

\* This distinguished officer, when in England, became acquainted with the sanitary proceedings in England.

fluctuates from year to year. It may go back, and the army may fall into its former unhealthy state, which was held by some people to be quite in the order of nature, as the same diseases had produced the same proportion of deaths from time immemorial. Statistics have been cited in support of the doctrine, that everything occurring successively in equal intervals through long periods of time, being governed by a law, is unalterable. The reasoning, "It has so happened in my days and my father's, and it cannot happen otherwise," has thus received an apparent sanction from science. But true science teaches another creed. If the causes remain the same the effects are the same; and it is only when the causes are beyond human control that the effects are inevitable. Now, upon examination it is found that the great causes of the excess of deaths in the army are completely under control in all ordinary circumstances, and as they vary their effects vary, so that if the measures that have been begun, be carried out we have no fear of the result: besides, if the causes of disease be studied—under the new system of observation established by Lord Herbert—new means of guarding the exquisite mechanism of the human frame will undoubtedly be discovered.

The success of this system of observation will depend on the efficiency of the Medical Department; so after re-organizing it on a sound basis, Lord Herbert established a Professorship of Hygiene in the New Army Medical School. In his opening address at Chatham, he dwelt on the advantage of giving the medical officers such a position in the army as would enable them to apply their noble art to the prevention as well as to the cure of disease. He had made Mr. Alexander, who ably seconded all his efforts, Director-General; and, on the death of that fine and devoted officer, nominated Dr. Gibson his successor, who has offered, as the first fruits of his office, the report upon which I have commented.

The evidence before the Royal Commission proved that the health of the British army at home—of the warriors of the nation—was below the national standard; indeed, the deaths were doubled among the troops at home, quadrupled and septupled in the army abroad, including officers. The inefficiency from sickness was equally excessive; so that of *two hundred thousand men* in the estimates, probably more than *fourteen thousand* would be habitually in hospital in time of peace. In war, our armies invincible when in health, were weakened, paralyzed, or destroyed by disease. More than 21 per cent. of the victorious force in the Peninsula were in hospital;\* the expeditions in the French war under the Duke of York, the Walcheren expedition, Sir John Moore's retreat, and finally the Crimean disasters, revealed the deplorable imperfections of our

\* *Statistical Journal*, vol. xix, p. 247.

sanitary arrangements. The machine broke down precisely when its services were wanted.\* With the evils of this rooted system Lord Herbert grappled. Unlike *Candide*, he did not allow that

\* Marlborough possessed that real *elixir vitæ*—the art of preserving a British army in good condition; but it was lost in the eighteenth century; and this as much as the incompetency of the generals was the main cause of our military failures. Sir James McGrigor, in his autobiography, presents us with a type of the British army in the French war. He joined it at Chatham in 1794, and soon embarked for Jersey. His regiment, the Connaught Rangers (88th), infected in Chatham, was "overwhelmed with fever in Jersey," before it saw the enemy; and he, attacked by disease, had barely recovered in the country when he was ordered to embark for Ostend. Several officers and upwards of 100 men were left behind unfit for duty. At Breda fever broke out again, and 200 sick men altogether were under treatment instead of being in the ranks. The other British regiments suffered with not less severity. They were obliged to take chapels and all sorts of places for the sick. Here he saw the Duke of York. Fever again prostrated him; and after a narrow escape from death he embarked for home, convalescent. The fever-soldiers were collected at Norwich. He subsequently embarked for the West Indies. The 56th and other corps arrived in this unhealthy climate broken up with fever. Here he got dysentery, which then prevailed among the troops. The terrible yellow fever reduced whole regiments to skeletons. The first question put to an officer on entering the coffee room was, "who has died in the night?" After returning to England he embarked for the East Indies. "Scarcely a month at Bombay," he says "I accumulated an *hospital full of sick*, the prevailing diseases being *dysentery* and *hepatitis*." In 1801 he went with the British expedition to Egypt, and there he had a fever, which it was thought would be "plague," by which his regiment was smitten; and he adds, "by the blessing of Providence alone I escaped." The army suffered also from ophthalmia, and brought the epidemic to England, where it attacked many people. At Windsor, he says "the King, from under a green shade, looked at me; I expressed my regret to see his Majesty suffering in his eyes. 'Aye, aye!' replied he, 'this is one of the fruits of the expedition to Egypt.'" The British army, after it had fought the battle of Corunna (January 14, 1809), was wretchedly crowded in transports and ships of war, and upon its disembarkation filled Portsmouth with fever, which spread to the militia and the surrounding districts. The expedition to Walcheren landed upon that island on August 15th, 1809; on September 23rd, 9,046 men were sick, and after immense losses the remnant of the shattered forces embarked for England. Sir James McGrigor was dispatched to their aid, and this time was not himself disabled. Made chief medical officer under the Duke of Wellington in the Peninsula, he saw the British army attain,—after immense losses by disease and death,—vigour and health before it passed the Pyrenees. The brigade of Guards, cut up by fever and disease, was sent to Oporto, and only rejoined the army after the battle of Vittoria.

The men always fought well, even under the most incapable officers that ever commanded armies. And the terrible necessities of war are necessarily fatal to large numbers; but neither the retreat of Sir John Moore, nor the retreat to Burgos, did a tenth part of the mischief directly resulting from the bad sanitary organization of the British army, which like the late Director-General had its typhus at home—its remittents in the Netherlands—its yellow fevers in the West Indies—its dysenteries in the East Indies—its plague and ophthalmia in Egypt—a mixture of these diseases in Spain—its fevers and dysenteries everywhere in the field. The Crimea was the culminating point; for there 39 per cent. of the force was sick on an average during seven months; and the destruction of life was enormous. A British army in health, under the command of generals of genius, such as the country always produces in small numbers, is irresistible; and as the inefficiency of the army from sickness in its expeditions retarded its triumphs, it added millions to the National Debt. Nothing is so expensive as an unhealthy military force.



he was living in the best of worlds possible. He listened not with a frown, but, as his manner was, with a smile to the antiquated pleas for antiquated abuses. He positively refused to believe in the divinity of the Guards' tub of which a Swift alone might tell the tale—in the foul latrine—in the boiled beef for the soldier's stomach seven days in the week—in the close air of barracks—in the gangrene of hospitals—or in any of the idols which had been heretofore worshipped: all were remorsefully questioned, and as many as gave no satisfactory answer will ere long disappear; if they be not preserved in the United Service Museum as dread curiosities, which have, down to this date, destroyed more men in the British army than either the glittering steel, or the flashing artillery of its foes.

In his investigations Lord Herbert availed himself of the latest methods of analysis, and took counsel with scientific men; for he had no conceit, and no pretension to see by intuition what can only be acquired by the labours of a life. His opinions were therefore drawn from experience, and rested upon a scientific basis. In dealing with the soldier he had also another guide. Gentle culture, knowledge, intellect, genius, distinguish men from each other, but Lord Herbert knew that these distinctions did not separate mankind into classes of different natures, for he ever held that the rank and file of the English army were men of like passions with ourselves. He consequently seems always to have applied this test to the past practices, and to proposed plans for their moral as well as their physical improvement: "How should I feel under the same circumstances? or how would an officer regard such a measure as applied to him?" It was a simple appeal; and to this helm his generous heart ever answered faithfully.

I have thus given you a sketch of the results of some of Lord Herbert's labours.

The worth of many men is known only to their intimate friends, as in the memorable instance of him who is enshrined in the lays of Tennyson. And the value of the measures of some of our greatest statesmen can only be expressed in general terms; but, fortunately, the deeds of Lord Herbert, if they do not dazzle us by their splendour, can be exactly appreciated, and will be expressed in figures as long as the British army shall exist. The debt which the country owes him will accumulate from year to year.

As modest in death as in life, he lies quietly in his tomb at Wilton; and what memorial, either in bronze or in marble, it may be thought right by his friends or his country to dedicate to his memory I do not know; but that which occupied the solicitude of his last hours, and which, I dare affirm, would be dearest to his soul, would be the consummation of the good work, of which it was not given him to say, It is finished: and then his everlasting monument will be a living, healthy army.

## APPENDIX.

*Comparative View of SICKNESS and MORTALITY of the British Army in 1837-46 and in 1859.*

Description.	1859.			Ratio per 1,000 to Strength.				Invalided under the Terms of Completed Service. (Infantry, 21 yrs.) (Cavalry, 24 yrs.)		Constantly Sick in Hospital per 1,000.
	Strength.	Admissions.	Deaths. Including the Deaths of Invalids.	1859.		1837-46.		1859.	1837-46.	
				Admissions.	Deaths.*	Admissions.	Deaths.			
1	2	3	4	5	6	7	8	9	10	11
United Kingdom—	Total.	Total.	Total.	p.1,000.	p.1,000.	p.1,000.	p.1,000.	p.1,000.	p.1,000.	p.1,000.
Household Cavalry ....	1,213	653	10	538	8.24	—	11.09	7.42	14.73	28.70
Dragoon Guards } and Dragoons .... }	8,059	7,908	64	981	7.94	962	13.64	14.64	19.87	51.13
Royal Artillery .....	11,508	14,877	92	1,293	7.99	1,189	13.92	—	—	—
Engineers .....	1,243	1,579	9	1,270	7.24	—	—	—	—	—
Military Train .....	1,139	1,439	7	1,263	6.14	—	—	—	—	71.82
Foot Guards .....	5,939	4,701	54	791	9.09	862	20.43	19.87	17.17	51.76
Infantry regiments ....	19,621	18,915	149	964	7.59	1,044	17.89	10.41	—	50.91
Depôt battalions .....	22,993	26,421	311	1,148	13.52	—	—	—	—	—
MILITIA .....	19,048	17,483	119	918	6.27	—	—	—	—	—
Mediterranean Stations—										
Gibraltar .....	5,153	4,889	40	949	7.76	939	13.58	10.48	—	46.90
Malta .....	5,310	6,446	101	1,214	19.02	1,120	19.36	8.29	—	51.81
Ionian Islands .....	3,660	3,225	46	881	12.57	1,139	17.94	4.64	—	44.46
North American Stations—										
Hermuda .....	1,074	577	15	537	13.95	1,187	33.79	4.65	12.3	35.11
Nova Scotia and } New Brunswick } .....	1,798	1,003	13	558	7.23	900	16.00	7.23	14.1	22.39
Canada .....	2,782	1,516	29	545	10.42	982	17.42	7.91	15.2	28.27
Newfoundland .....	209	278	1	1,330	4.8	781	11.54	43.01	48.3	37.10
British Columbia .....	150	85	1	814	6.67	—	—	—	—	—
West Indian Stations—										
Jamaica .....	624	833	9	1,335	14.42	—	{ 61 to } 30.7†	4.8	—	58.08
West Indies—										
Barbadoes .....	786	826	5	1,051	6.36	—	58.5†	—	—	—
St. Lucia .....	96	113	—	1,177	—	—	22.8†	—	—	—
Trinidad .....	190	276	17	1,453	89.53	—	106.3†	—	—	49.38
British Guiana .....	143	156	2	1,091	13.98	—	84.0†	—	—	—

\* In comparing the mortality of 1859 with that of previous years, Dr. Balfour has, in some cases, made corrections for difference of age. (See "Report.")

† Average annual mortality in the twenty years, 1817 to 1836.

Description.	1859.			Ratio per 1,000 to Strength.				Invalided under the Terms of Completed Service.		Consistently Sick in Hospital per 1,000.	
	Strength.	Admissions.	Deaths including the Deaths of Invalids.	1859.		1837-46.		Infantry, 21 yrs. (Cavalry, 24 yrs.)	1859.		1837-46.
				Admissions.	Deaths.*	Admissions.	Deaths.				
1	2	3	4	5	6	7	8	9	10	11	
Total.	Total.	Total.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	
<b>Southern Stations—</b>											
St. Helena .....	465	373	6	802	12.90	943	16.62	—	—	36.23	
Cape of Good Hope—											
Cape Town .....	664	1,286	21	1,937†	31.6†	945	16.54	—	—	—	
Natal .....	562	513	7	913	12.41						
Eastern frontiers....	3,096	2,858	35	923	11.30						
<b>Australasian Stations—</b>											
Australia .....	1,380	913	16	662	11.6	—	—	9.86	—	—	
Tasmania.....	262	139	5	531	15.0	732‡	11.87‡				
New Zealand .....	334	716	5	636	4.5	518§	11.61§				
China .....	1,550	4,314	92	2,783	59.35	—	—	—	—	129.35	
Mauritius.....	1,254	1,540	20	1,237	16.04	910	22.38	8.0	—	48.76	
Ceylon.....	913	1,546	32	1,693	35.1	1,444	41.74	—	—	70.14	

\* In comparing the mortality of 1859 with that of previous years, Dr. Balfour has, in some cases, made corrections for difference of age. (See "Report.")

† The very high rate of mortality and of admissions into hospital in Cape Town Station, is accounted for by the fact that the 59th regiment which had broken down by disease in China, was sent to Cape Town on the 19th January, 1859, from which date till the end of the year it furnished 1,096 admissions and 18 deaths out of an average strength of 641 men.

‡ For the years 1839-55. § Ibid., 1846-55. || Ibid., 1838-54.

*Mortality amongst the Native Troops in the British Army in the Year 1859.*

Stations.	Strength.	Admissions.	Deaths.	Ratio per 1,000 to Strength.	
				Admissions.	Deaths.
				per 1,000.	per 1,000.
Jamaica .....	807	1,034	25	1,281	30.95
Barbadoes .....	754	766	12	1,016	15.9
St. Lucia .....	103	95	1	922	9.7
Trinidad.....	102	78	6	765	58.8
British Guiana .....	301	337	2	1,120	6.6
Honduras .....	322	274	2	851	6.2
Bahamas .....	322	268	13	832	40.3
Sierra Leone .....	356	193	5	542	14.02
Gambia .....	314	205	8	653	25.44
Gold Coast .....	279	162	7	581	25.06
Ceylon .....	1,564	1,133	16	724	10.19
China.....	2,009	3,283	109	1,634	53.7

*On the COMPARATIVE PROGRESS of the POPULATION of ENGLAND and SCOTLAND, as shown by the LAST (1861) CENSUS. By JOHN STRANG, LL.D., City Chamberlain, of Glasgow.*

[Read in Section (F), at Manchester, 10th September, 1861.]

If some distant and untutored foreigner happened to cast his eye over the map of the world, and were told by some enlightened bystander that within the comparatively small islands of Great Britain and Ireland there resided the elements of a first-rate political power, he would no doubt feel some little surprise at the intelligence; particularly were he, at the same time, informed that within the boundaries of Great Britain itself there was only a surface area of about 57 millions of statute acres. But the foreigner's surprise would be perhaps still greater were he further told that, while the southern portion of the island, called England and Wales—with a surface of little more than 37 millions of acres—had a population (as ascertained by the late Census, exclusive of the army and navy, and merchant service abroad) of 20,061,725, the northern portion, called Scotland—with a territorial surface of upwards of 20 millions of acres—contained only 3,061,329 inhabitants. Such, however, are the real facts of the case; and those like ourselves, who are acquainted with the distinctive physical peculiarities of the two portions of Great Britain, will feel little wonder about it.

There is, however, a subject connected with this territorial division of England and Scotland, and their distinctive populations, which is not so easily understood—we mean the fact, as shown by the Census returns of the present century, that there has existed for some considerable time, and particularly of late years, a marked difference in the ratio of the progress of the population within the limits assigned to the southern and northern portions of Great Britain respectively.

The following table will best exhibit this difference, by showing the annual progress of the population in England and Scotland since 1801, when the enumeration figures of both countries may be first truly relied on:—

Year.	England and Wales.	Scotland.
1801 .....	9,156,171	1,608,420
'11 .....	10,454,529	1,805,864
'21 .....	12,172,664	2,091,521
'31 .....	14,051,986	2,364,386
1841 .....	16,035,198	2,620,184
'51 .....	17,927,609	2,888,742
'61 .....	20,061,725	3,061,329



From the foregoing table it appears that the population of *England and Wales* has, in the course of sixty years, increased to the extent of 10,905,554, whereas that of *Scotland* has advanced to the extent of only 1,452,900; exhibiting an increase on the part of *England and Wales* of 119·1 per cent., and on that of *Scotland* of only 90·3 per cent.; and if we merely compare the progress of the populations of the two divisions of the island respectively during the last ten years, we find that while *England and Wales* show an increase of 12 per cent., *Scotland* only exhibits an advance of 5·9, or about 6 per cent.

The question then naturally arises, how can this great and important discrepancy between the rates of progress in *England and Scotland*, particularly as existing between the years 1851 and 1861, be explained? Has it been occasioned by a different birth and death-rate ruling in the respective portions of the island? or is it to be found in a larger proportional rate of emigration on the part of the North to that of the South? And if the latter be the case, what may be the probable causes which have led to that higher emigrating spirit?

Let us, then, attempt to discover what has been the actual *natural increase* of the population in *Scotland*, as deduced from the excess of births over deaths, since 1851. And here a difficulty meets us on the threshold—the fact that before the 1st January, 1855, there was no public register of births, deaths, and marriages kept in *Scotland*—and it is therefore only from the latter period that we can obtain any authentic figures wherewith to deal. Let us, however, see what these exact figures tell us, which will be best done in the following table:—

*Annual Table of Births and Deaths in Scotland from 1st January, 1855, till 30th June, 1861.*

Year.	Births.	Deaths.
1855 .....	93,349	62,004
'56 .....	101,821	58,529
'57 .....	103,628	61,925
'58 .....	104,195	63,532
'59 .....	106,732	61,754
'60 .....	105,704	68,055
'61 (Half year)	54,625	33,863
	670,054	409,662

From the foregoing table we at once discover that during the last six years and a-half the actual increase of the population from the excess of births over deaths amounted to 260,392; and, assuming that the average annual birth and death-rates then existing differed but little from those existing during the three and a-half years that preceded the passing of the Registration Act for *Scotland*—which

rates were, say, birth-rate 3·41 per cent., death-rate 2·08 per cent.,—then it would follow that during that period of three and a-half years preceding 1st January, 1855, the births must have amounted to 346,115, and the deaths to 211,120, showing an excess of births over deaths of 134,995, and which, when added to the excess of births over deaths during the last six and a-half years, makes a *total natural increase* of the population in *ten years*, within the boundaries of *Scotland*, of 395,387, or at the rate of about 13·6 per cent. It is therefore quite evident, that had *Scotland* not been subject to the effects of a *serious emigration*, her population at last Census would have amounted to 3,284,129, instead of 3,061,251.

If such, therefore, may be taken as a proximate picture of the real natural progress of the population of *Scotland*, it necessarily follows, considering the immigration from *Ireland* into the West of *Scotland*, that the tide of emigrating Scotch to other countries must have been very great, especially during the last ten years; seeing that in addition to all the *Irish* immigration—which, however, has not been so large for these four or five years by past—there must have gone out from *Scotland* no fewer than 222,878 persons, being the difference between the natural increase from the excess of births over deaths, and the increase as shown by the late Census.

According to the returns made to the Registrar-General by the Government Emigration Board, we find that during the last ten years, the estimated number of Scotch who have *emigrated* with the knowledge of the said Board has amounted to 183,627, leaving 39,251 which must have left otherwise, either to recruit the army and navy abroad, to push their fortune in various parts of the globe, unaccounted for by the Emigration Commissioners, or, what is more likely, have gone to swell the population of *England*. That the population of *England* has been greatly increased from immigration will at once appear evident, when it is stated that while in the ten past years the *English-born emigrants* have amounted to 640,210, the *natural increase* of her population only exhibits 136,460 more than her ascertained population by the Census, showing an unaccounted for deficiency of 503,740, for which she must have been mainly indebted to *Scotland* and *Ireland*. That an emigrating spirit has manifested itself on the part of the Scotch more than the *English* is certain, from the fact that, taking the mean population for the last ten years of each country, we shall find that, had *Scotland* only emigrated proportionally to *England*, the Scotch emigrants ought only to have amounted to about 100,000, whereas the numbers stated by the Commissioners are 183,627.

If the emigration from *Scotland* has thus been so disproportionately great, it may be asked from what particular quarter of the country has this spirit chiefly manifested itself, or, in other words, in

what division of the country has the population absolutely shown a decline? The following table will at once answer the question:—

Table showing the Counties in Scotland where the Population was found TO BE LESS in 1861 than 1851.

Counties.	Numerically less by	Counties.	Numerically less by
Sutherland.....	585	Argyll .....	8,303
Ross and Cromarty .....	1,427	Bute .....	420
Inverness .....	9,065	Dumfries .....	2,246
Kincardine.....	137	Kirkcudbright .....	691
Perth .....	5,149	Wigton .....	1,351
Kinross .....	949		
Clackmannan.....	1,502		31,825

It appears, then, from the foregoing table, that in twelve out of the thirty-three counties of Scotland there has been, since the Census of 1851, irrespective altogether of the natural progress of the population by excess of births over deaths, a *diminution* of the inhabitants to the extent of 31,825; and as these counties are almost entirely agricultural and pastoral, the fact would seem to indicate that either manual labour was less wanted in these particular districts, or that a better remuneration for labour and industry was offered elsewhere.

For a striking contrast to this state of things in the agricultural and pastoral parts of Scotland, we have only to look to the Census figures of the commercial, mining, and manufacturing county of Lanark, where we find, in the course of the last ten years, an *increase* to the population of no less than 101,390! The fact is, the increase of the population is almost entirely limited in Scotland to *towns*, and to these of the largest kind—the increase in towns being 10·9 per cent., whereas the rural districts only show an advance of 0·9, or not 1 per cent.; or, if Scotland be divided into three great divisions—viz., called *Insular, Mainland-Rural, and Towns*—the insular will show a decrease of 3·6 per cent., the mainland-rural an increase of 3·9 per cent., and the towns an increase of 12·9. But, to show still more forcibly the decline that has taken place among those residing in the *rural* portions of Scotland, it may be mentioned that the small increase stated as occurring in the mainland-rural district of 3·9 per cent., is owing almost entirely to the increased population of the smaller towns situated within the limits of that great division of the country. The leading deduction, then, to be drawn from these dry statistical details is simply this, that there has existed for some time a manifest tendency on the part of the inhabitants of the country districts, and particularly of those dwelling amid the Highlands and Islands, to quit a land where rural labour was little wanted, and pastoral care was poorly paid, for other countries where both were in good demand and highly compensated; or for towns and cities, where the hardy and unskilled labourer is almost always

sure to find employment. That this emigrating spirit in search of future prosperity has proved as yet as advantageous to Scotland as it has certainly been to Ireland, will scarcely be denied, seeing that it increases not only the value of the labour, and raises the condition of those who remain behind, but elevates the position and increases the comforts of those who go away. And although there must ever be felt a pang on the part of a pilgrim family when abandoning for ever the cherished scenes of childhood, even when those are associated with nothing better than the comfortless home of the Highland cottar, still the mutual personal benefit that results from this separation has been generally found to be, to those gone and to those left, well worthy of the temporary pang.

Among the immediate causes which have led to the late depopulation of the Highlands and Islands, and the partial diminution of the inhabitants of the other rural districts of Scotland, we shall only allude first, to the great enlargement which has lately taken place in the sheep-walks and agricultural farms—particularly in the northern parts of the country—thereby diminishing a host of small master graziers, and even smaller agricultural tenants, each and all of them without energy and without capital; secondly, to the discouragement given to the continuance of unnecessary cottars and crofters idly occupying the country; and, thirdly to the effects and results of the late Highland famines, which have, alas, too sadly taught the poor and perishing denizens of a country that cannot maintain them, to flee for refuge to one more kind and hospitable.

If, however, from the returns of the present Census we have been told that the rural portions of Scotland have, with respect to population, remained either stationary or have shown a tendency to decline it is, at the same time, certain that in the great centre of trade, mining and manufactures—we mean in *Glasgow*—there has been a most marvellous increase in the amount of its inhabitants. For while at the commencement of the present century that city and its suburbs only contained 83,769 persons, the last Census revealed the fact that its population, with that of its new-world increasing suburbs, amounted to 446,395, and which, when compared with the population residing on the same territory in 1851, showed an increase of no less than 86,257 during the last ten years, or a rate of 23·95, or nearly 24 per cent. That this increase has mainly arisen from a *constant immigration* from all parts of Scotland, and also from Ireland, is no doubt certain; for if we assume that the last year's birth and death-rates—which were, births, 3·87 per cent.; deaths, 3 per cent.—have been the average rates for the last ten years, which we believe is not far from the truth, and that the mean population during the same period may be fairly assumed to have been 403,000, it will then follow that the natural increase, arising from the excess of births



over deaths, could not have amounted to more than above 35,000, which, being deducted from the ascertained increase as shown by the late Census, proves that the increase of the city and suburbs must have been supplemented by an immigration of upwards of 50,000.

That Glasgow, indeed, has been chiefly indebted during the last half century to the immigration which an increase of capital and an active and multifarious industry have induced, cannot better be illustrated than from the facts which our lately-printed analysis of the Enumeration Returns of the Glasgow Census then exhibited. From these the fact may be gathered that, independent of the many thousand individuals that have been attracted to that centre of Scottish industry from all quarters of Scotland, there were found within the limits of its municipality alone, on the 9th of April last, no less than 10,809 native English, 63,547 native Irish, 827 foreigners, and 1,440 colonists, being about 20 per cent. of the whole of that population.

In conclusion, let us merely add, although it is quite true that the population of Scotland has only increased, according to the late Census, about 6 per cent., and consequently only in a ratio of half the amount of that of England, it is, at the same time, certain that this diminution of ratio has not arisen from any falling off in the natural increase of the people, that is to say, in a diminution of the excess of births over deaths, but wholly and entirely from a most extraordinary amount of emigration by persons belonging chiefly to the insular and rural portions of the kingdom—an emigration which, in the peculiar districts affected by it, has been thereby benefited, and has not in the least degree interfered, but rather accelerated the progress of those leading marts of commerce and industry in Scotland, which have hitherto so successfully kept pace with their worthy commercial and manufacturing competitors in England. In a word, while Scotland, from its improved, and still improving, system of agricultural and cattle rearing, may feel well content to part with her supernumerary and unemployed peasantry, either to add to the prosperity of her urban seats of industry, or to continue to fulfil the old adage that in every nook of the world where any good is to be got, there is to be found a Scot, a rat, and a Newcastle grindstone—she at the same time cannot but feel assured so long as her soil is daily becoming more productive, and her manufactures, mining, and commerce are advancing, and her cities, harbours, and railroads are extending as they are at present found to be, that she is still on the pathway of prosperity, even although the Census has truly proclaimed that the progress of her population has only exhibited an increase of scarcely 6 per cent. during the last ten years of her history.

*An ACCOUNT of the PRICES of PRINTING CLOTH and UPLAND COTTON, from 1812 to 1860, &c. By ALDERMAN NEILD (Manchester).*

[Read before Section (F), at Manchester, 4th September, 1861.]

In the two Tables annexed to this Paper, I have given the price of a description of Cotton Cloth which is known in the trade by the expression " $\frac{7}{8}$ -72 Reed Printers." By this term is meant a piece of grey cloth, measuring 29 yards long and 27 inches wide. Formerly the width was 28 inches; the value of this additional inch being about threepence; but for the last eighteen years, the width has been the same as at present. Of course there are various widths, reeds, and qualities, but I refer now to what is understood when speaking of the best makes. By the term 72 reed, is meant 72 threads of warp in the inch, and the best class of this description of cloth has 88 threads of weft in the same space.

This description of Cloth is now, to a considerable extent, superseded by what is termed a 9-8 cloth, which, assuming it to be of the same quality, will measure in the grey 25 yards long and 36 inches wide. It may be said that 36 inches is not 9-8; in this respect, however, both as to length and width, I believe it has undergone no change for between forty and fifty years.

Notwithstanding the  $\frac{7}{8}$  are very much giving place to 9-8 I have continued the comparison in  $\frac{7}{8}$  throughout, as it is only by so doing I can give an accurate comparison of one period with another: 9-8 at the early time of the comparison being very little used.

The first six years of the table (viz.), from 1812 to 1818, refer to an 80 reed cloth, which means cloth with 80 threads in the inch of warp; being in other respects much the same as the 72 reed. The present difference in value between an 80 and a 72 reed, will be about 9d. per piece. For the latter half of the period included in the table, the prices of *cloth* given for each year represent the average of monthly transactions—that is, of transactions which proceeded upon a monthly quotation and agreement of prices between buyer and seller. The prices given of *Raw Cotton* are not average annual prices, but the highest and lowest quotations occurring in each year.

I may here mention a remarkable circumstance, showing the astonishing superiority of power loom cloth over hand loom. It is this;—in our practice as buyers of cloth, we apply a very close scrutiny to every lot of cloth we purchase, as to the warp, weft, length, breadth, and weight. The accuracy with which one piece

compares with another in all these particulars, in the productions of first-class makers, is surprising; the item of weight, however, being the one in which the greatest difference is to be apprehended. But even in this, the difference in the first makes in large quantities of cloth, will not be more than about five ounces in cloth weighing, for example, 5lbs. 2oz.; that is, taking a number of pieces, and weighing each piece singly;—but taking the average of a number of lots of 20 pieces each, thus extending over thousands of pieces, they will not vary more than from 1 to 2 oz.; whilst taking the case of the 80 reed cloth named in the first six years of this table, I find a variation in cloth purporting to be the same, of from 5lbs. 1oz. to 6lbs. 4oz. This, as already stated, was hand made cloth, but the production of a house which I believe ranked first in the trade as regards this description of cloth. The very great irregularity, however, in the weaving constituted the most marked difference in the value in the two kinds of production.

The two most remarkable years in this table, are 1814 and 1825. The first (1814,) was soon after the battle of Leipsic, when the Continent had been closed to our manufactures for probably twenty years, and when it was believed, (to quote a saying of the time) "there would not be a piece for every village." With extravagant notions like these there is no wonder that the excitement became intense, and 80 reed grey printing cloth rose from 25s. per piece to 49s., and one style of prints which are produced by our concern, known in the Trade by the term "single coloured plates," rose from 44s. 4d. to 63s., or from 19d. per yard to 2s. 3d., a striking instance of the change which has taken place in the value of this article, from the period named to the present time. I may remark, that we are now selling a much superior article of the same class for 11s. or about 4½d. per yard:—by superior I mean so much better, both in design and execution, and brilliancy of colour, that if the production of 1814 were placed side by side with the production of 1860 at two-thirds the price, the piece of 1860 would be taken, and the one of 1814 left.

It must be borne in mind that there was an item in the cost of the piece of 1814, from which we are now happily free, I mean an Excise duty of 5s. 10½d. per piece, which upon the present value of the Print, is about 53 per cent. This tax was repealed in 1831.

The other year named, I mean 1825, will be remembered by many as one of extraordinary speculation and excitement, principally if I remember rightly, in raw cotton. The manufacturer endeavoured to keep pace by advancing his cloth and 72 reed printing cloth rose, in that year, from about 13s. 6d. to 19s. This, however, had the effect of almost putting a stop to the demand; and I do not remember an instance in which the retail Trade more steadily kept aloof from purchasing. Quite different, as far as I can remember,

was the case in 1814, on which occasion (for a time at least,) it was thought that circumstances justified the excitement.

During the excitement of 1825, I was very much amused by a Liverpool gentleman, who entered warmly into the cotton speculation, and regularly visited me every week, to inquire if the drapers were giving way by making their usual purchases; he was always met by the same answer (viz.), "No, nor are they likely to do,—you have little idea of the stocks these persons have to fall back upon, and which the present high prices enable them to dispose of, but which in regular times would be passed over for newer goods."

During this time of great speculation, sales, except to a very limited extent, were out of the question. The result was, a great accumulation of stocks. The usury laws were then in force, and in consequence of the very high rate of money, manufacturers were driven to most terrible sacrifices upon their stocks, and I seldom or never remember so much suffering amongst them.

At length, prices began to give way; and the cloth in question very soon fell from 19s. to 13s. 6d. at about which price it had steadily ranged for about two years previous to the speculation; consequently, many then thought the price a safe one, but in a very short time it fell to 10s., or nearly 50 per cent., from the highest point. This fall occurred in a period of about nine months. In 1848, this same cloth touched the very low point of 4s. 6d.; its present value being 6s. 10d.

It will be observed, by a reference to the table, that in 1816 the price of 80 reed cloth was 29s. This period was one of depression rather than excitement; whilst as a remarkable instance of the change in the price of an article, differing only slightly in value, it fell in 1848 to 4s. 6d.

Then, again, as another instance of the change in value, and looking at the column of *Average Prices* :—

Periods.	Cotton.	
	Highest.	Lowest.
In 1818 it was ..... s. d. 21 9	s. d. 1 10½	s. d. 1 4½
„ '26 „ ..... 10 6	- 8¾	- 5½
„ '37 „ ..... 7 9	- 10¾	- 6
„ '46 „ ..... 5 6	- 6½	- 4¾
„ '48 „ ..... 4 9½	- 5	- 3¾

After this, prices began to advance, until in 1860 they touched 7s.

The causes which have operated to produce these changes, as

shown in the table, are too numerous to be fully entered upon here. They, may, however, be named under such general heads as the following, viz.: reduction in the price of the raw material—improved machinery—improved training of the hands employed—and the enormous increase of demand, which has enabled the manufacturer to diminish the cost per piece on his fixed expenses, by turning off a greater number of pieces from the same machinery. Lowness of price, again, has been continually stimulating the demand.

I have thus endeavoured to show the history of the fluctuations in the price of one article for a period of about half a century, forty-three years of which has been merely the record of my own purchases in connection with my own firm of Thomas Hoyle and Sons, Calico Printers, Mayfield Works.

[Note by Editor, S. J.—By means of the figures given by Alderman Neild in the two following Tables (B) and (C), we are enabled to arrive at something like an accurate numerical expression of the fall which has taken place in the manufactured fabric (cotton cloth) as compared with the fall which has taken place in the price of Raw Cotton. In the following Table (A), an abstract is given of the two Tables (B) and (C); and under cols. 4 and 7 is shown the percentage of fall in price of the two commodities. It would seem that down to 1830 the fall in Cloth hardly kept pace with the fall in Cotton; but after 1830 the effect of improvements in manufacturing processes, is made manifest in the rapid fall of Cloth from Ratio 85 to Ratios 49 and 56, notwithstanding a steady or even rising price of Cotton. The tables now contributed by Alderman Neild are exceedingly valuable, inasmuch as they represent large actual transactions by the same parties and for the same purposes, carried on for fifty years. It is very rarely that any statistical Table of Prices so authentic and conclusive is brought before the public.]

(A.)—Abstract of Results of the Tables (B) and (C).

Periods.	Cotton Cloth, per Piece.			Upland Cotton (Lowest).		
	Average Prices.	Ratio.	Rise or Fall.	Price, per lb.	Ratio.	Rise or Fall.
	s. d.		Pr. cnt.	s. d.		Pr. cnt.
1812-14 ....	29 8	265	—	1 7	253	—
'15-17 ....	26 10	240	- 9.4	1 4½	220	-13
'18-25 ....	16 6	148	-38.4	- 8½	111	-49.6
'26-30 ....	9 6½	85	-42.6	- 4½	64	-42.4
'31-37 ....	9 1	82	- 4	- 7	93	+66
'38-47 ....	6 8½	60	-24.9	- 5½	68	-26.9
'48-57 ....	5 5¾	49	-28.4	- 5½	68	—
'58-60 ....	6 4¾	56	+14.3	- 6½	81	+19.1
	11 2½	100	—	- 7½	100	—

(B.)—An Account of the Average Annual Price of 7-72 REED PRINTING CLOTH, from 1812 to 1860, both inclusive; also an Account of Highest and Lowest Price of UPLAND or BOWED GEORGIA COTTON, for the same period.

Year.	Price per Piece.						Cotton, per Pound.			
	Highest.		Lowest.		Average.		Highest.		Lowest.	
	s. d.	Ratio.	s. d.	Ratio.	s. d.	Ratio.	s. d.	Ratio.	s. d.	Ratio.
1812.....	—	—	—	—	25 —	224	2 11½	209	1 1	173
'13.....	—	—	—	—	25 —	224	2 6	267	1 9	280
'14.....	49 —	467	—	—	39 —	350	3 1	330	1 11	306
	49 —	467	—	—	29 8	265	2 6	267	1 7	253
1815.....	—	—	—	—	28 —	250	2 1½	204	1 6	240
'16.....	—	—	—	—	29 —	260	1 9	187	1 3	200
'17.....	—	—	—	—	23 6	210	1 11½	207	1 4½	216
	—	—	—	—	26 10	240	1 11½	207	1 4½	220
1818.....	22 6	214	21 —	247	21 9	194	1 10	195	1 4½	220
'19.....	21 6	205	18 —	211	19 9	177	1 7¾	175	- 10	133
'20.....	16 —	152	15 6	182	15 9	141	1 1¾	122	- 8	106.6
'21.....	15 6	148	15 —	176	15 3	136.5	- 11½	102	- 7	93
'22.....	15 —	143	14 —	165	14 6	130	- 11	98	- 5¾	76.6
'23.....	14 6	139	13 9	161	14 —	125	- 10¾	96	- 6½	83
'24.....	15 6	148	13 6	159	14 6	130	- 10½	94	- 7	93
'25.....	19 —	181	13 6	159	—	—	1 7½	177	- 6	80
	17 7	167	15 6½	182	16 6	148	1 2¾	126	- 8½	111
1826.....	11 —	104.5	9 9	114	10 6	94	- 8¾	78	- 5½	70
'27.....	10 3	97.5	9 9	114	10 —	89	- 7¾	69	- 4½	55
'28.....	10 —	95	9 6	111	9 9	87.5	- 7¾	67	- 5	66.6
'29.....	9 1½	87	8 3	97	8 9	79	- 7	65	- 4½	61.6
'30.....	9 3	88	8 1½	95.5	8 8½	78.6	- 7¾	70	- 5¾	75
	11 9	94	9 6½	111.7	9 6½	85	- 7¾	69	- 4½	64
1831.....	9 6	90.5	8 4½	98.3	8 11	80	- 7¼	64.5	- 4¾	63
'32.....	9 1½	87	8 —	94	8 7	77	- 8	71	- 5	66.6
'33.....	9 7½	91.5	8 3	97	8 11	80	1 —	111	- 6½	86.6
'34.....	10 1½	96.3	8 6	99.8	9 4	84	- 10½	93.4	- 8½	113
'35.....	11 —	104.5	9 3	109	10 2	91	1 1½	118	- 9½	123
'36.....	10 6	99.8	9 6	111	10 —	89	- 11¾	104	- 9¾	130
'37.....	10 2	97	7 3	85	7 9	70	- 10¾	94.5	- 6	80
	10 —	95	8 5½	99	9 1	82	- 10½	93.4	- 7	93



(B.)—An Account of the Annual Average Price of  $\frac{1}{8}$ -72 REED PRINTING CLOTH—Contd.

1 Year.	2 Price per Piece.						8 Cotton, per Pound.								
	3 Highest.			4 Lowest.			5 Average.		9 Highest.		10 Lowest.				
	s.	d.	Ratio.	s.	d.	Ratio.	s.	d.	Ratio.	s.	d.	Ratio.			
1838.....	8	11½	85°	7	10½	92°	8	5	75°5	—	8½	73°	—	6½	83°
'39.....	9	9	92°6	7	6	88°7	8	7½	77°	—	9½	82°	—	6½	91°
'40.....	8	7	81°	7	10	92°	7	3	64°	—	6¾	60°	—	5¾	76°
'41.....	8	2	77°	6	7	77°	7	3	64°	—	7½	63°	—	5½	78°
'42.....	6	6	61°7	5	7½	66°	6	—½	54°	—	6	53°	—	5½	68°
'43.....	6	9½	64°	5	6	64°	6	2½	55°	—	5½	42°	—	4½	55°
'44.....	7	5¾	71°	6	8	78°	6	3	56°	—	6	53°	—	4½	58°
'45.....	6	3	59°	5	6	64°	5	11½	53°	—	4¾	42°	—	4½	56°6
'46.....	5	9	54°	5	4½	63°	5	6	49°	—	6½	58°	—	4½	56°6
'47.....	6	6	61°7	5	3	61°7	5	8½	51°	—	7¾	69°	—	4½	56°6
	7	5¾	71°	6	4½	75°	6	8½	60°	—	6¾	60°	—	5½	68°
1848.....	5	2	49°	4	6	53°	4	9½	42°7	—	5	44°	—	3¾	50°
'49.....	6	—	57°	5	—	59°	5	4½	48°	—	6½	61°	—	4½	56°6
'50.....	6	4½	60°	5	9	67°5	6	—½	54°	—	8½	72°	—	6½	88°
'51.....	6	—	57°	5	3	61°7	5	6	49°	—	7¾	69°	—	4½	65°
'52.....	6	—	57°	5	6	64°	5	8	50°	—	6¾	56°6	—	5	66°6
'53.....	6	3	59°	5	9	67°	5	11	53°	—	6¾	59°	—	5¾	76°
'54.....	5	10½	56°	5	1½	60°	5	4	47°5	—	6½	55°	—	5½	68°
'55.....	5	6	51°6	5	—	59°	5	3	47°	—	7½	63°	—	5	66°6
'56.....	5	10	55°	5	4½	63°	5	7	50°	—	7½	66°6	—	5½	75°
'57.....	6	6	61°7	5	9	67°	6	2	55°	—	9½	82°	—	6½	81°6
	5	11½	57°	5	3¾	62°	5	5¾	49°	—	7	62°	—	5½	68°
1858.....	6	—	57°	5	4½	66°	5	9	51°	—	7½	66°6	—	6½	81°6
'59.....	6	10½	66°	6	1½	72°	6	5	57°	—	7¾	64°6	—	6½	88°
'60.....	7	1½	68°7	6	10½	80°6	7	—	62°	—	7	62°	—	5¾	76°6
	6	8	64°	6	1¾	71°5	6	4¾	56°	—	7¼	64°6	—	6½	81°
Gen. ave.	10	6¼	100°	8	6½	100°	11	2½	100°	—	11¼	100°	—	7½	100°

Note.—In this Table the cols. 3, 5, 7, 9, and 11 give the Ratio of variation of each Yearly Price as compared with the number 100, which is assumed to represent the average of each col. of Prices. Thus the general average of col. 2—i. e., the Highest Prices of Years 1818-1860 is 10s. 6¼d.,—and representing that result by 100, it follows that the price of 22s. 6d. in 1816 must be represented by the Ratio of 214. The Price in 1818 was, therefore, 114 per cent. higher than the average price (10s. 6¼d.) of the whole period.

(C.)—Price of AMERICAN or UPLAND COTTON, from 1793 (when the First Importation of American Cotton commenced) to 1811, both inclusive.

Year.	Highest.		Lowest.	
	s. d.	Ratio.	s. d.	Ratio.
1793 .....	1	10	1	1
'94 .....	1	6	1	—
'95 .....	2	3	1	3
'96 .....	2	5	1	—
'97 .....	3	1	1	—
'98 .....	3	9	1	10
'99 .....	5	0	1	5
1800 .....	3	0	1	4
	2	10¼	1	3
1801 .....	3	2	1	5
'02 .....	3	2	1	—
	3	2	1	2½
1803 .....	1	3	—	8
'04 .....	1	6	—	10
'05 .....	1	7	1	2
'06 .....	1	9½	1	3
'07 .....	1	7	1	3½
'08 .....	3	0	1	3½
'09 .....	2	10	1	2
'10 .....	1	10½	1	2½
'11 .....	1	4	1	—¼
	1	10¾	1	1¼
Gen. ave. ....	2	5	1	2

On STRIKES and their EFFECTS on WAGES, PROFITS, and ACCUMULATIONS.

By JOHN WATTS, PH.D., Manchester.

[Read before Section (F), at Manchester, September, 1861.]

AMONG the most serious of the evils to be encountered in the operations of trade are strikes by organized bodies of workmen. Since the repeal of the laws against combinations of workmen, "trades' societies" have sprung up in almost every considerable branch of employment—associations, the principal object of which is the "protection of wages." These societies are co-extensive with the trades which they represent, being composed of federated branches, united by representation in central committees. Some of these societies are not strictly confined to the United Kingdom, for the hand engravers have members in North America, and the Amalgamated Engineers have members in every part of the civilized world. In some of these societies *piecework alone*—i. e., work at so much per yard, or per piece of a given number of yards, or so much for a given job—is recognized as the proper mode of payment; in others piecework and daywork are both allowed; and in others, again, daywork alone is recognized; but in all there are rules, expressed or understood, to control the rates of wages, which are alike for the inferior and the superior workman. In most societies apprenticeship to the trade is held to be an indispensable preliminary to admission, and the number of apprentices to be allowed to any employer to a given number of men is defined; while in other societies (the cotton trade, to wit) the system of apprenticeship is held to be injurious, and is sometimes denounced as a tyranny. The societies enforce their rules upon members by fines and expulsion, while the rod held over the employer is the probability of a strike.

That strikes are great evils is universally allowed. Some persons affirm that they are unmitigated evils; some think that, however mischievous, they are not preventible; while others affirm that they are necessary, as preventing even greater calamities. If I can at all aid in discovering which of these theories is the true one, or if any of them be true, my purpose will be answered. I suspect there are but few men who would think of re-enacting the laws against combinations, for whatever be the evils of freedom, those of secret societies, endless prosecutions, and schemes of revenge, which would certainly follow any such enactment, would be much worse; and we

are, therefore, left to reason alone as our court of appeal, whatever may be our conclusions; and if we find that we are at present experiencing the danger of "a little learning" in trade affairs by workmen, the cure, as I believe, is not to be found in the backward path, but in the progress to higher knowledge; and we must not forget that our present position, as compared with twenty years ago, shows a very satisfactory improvement in the conduct of the working class generally.

Economic science rules that the price of labour, like that of any other commodity, will be regulated by the supply of compared with the demand for it; and working men practically acknowledge the truth of the theory even while fighting against it, for by strikes they withdraw labour from the market, thus making it artificially scarce, in order to keep up its price. But such an operation, even if successful, is shortsighted; the operatives forget that all increase to the future wages fund comes out of the profits of the employer and the invested savings of the workman; and that to arbitrarily prevent the production of wealth, or to wastefully consume the savings of past years, is just as injurious to society, and as certainly lessens the future demand for workmen and the future rate of wages, as if the employer's workshops and plant had been burnt, or his wealth cast into the sea. Like produces its like, wealth begets wealth, but the seed wealth can only fructify by passing through the soil of labour; and as the increase of an industrious population increases the price of land by increasing the customers for its produce, so will the increase of wealth generally increase the price of labour by increasing the demand for labourers. If I save money I do not lock it up in a box, but invest it, in order to make a profit; but where shall I find an investment which does not employ labour! If I go into the most unlikely looking, as into consols, into bank or railway shares, I release another man's money; and, however often this transaction be repeated, the ultimate result will be the release of some one's money for productive employment.

The connection between the employer and his workpeople ought to be very intimate; for unless the workman has the confidence of his employer or manager, he cannot expect to retain his situation for any long time, and to enable him to deserve such confidence he must work with a will, which can only arise from satisfaction with his remuneration and his treatment. The best of friends occasionally disagree, and each conscientiously believes the other to be in the wrong, and it is hardly likely that members of societies which, as at present constituted, infringe upon individual liberty will avoid disputes with the sufferers from their restrictive rules; and, accordingly, we can scarcely lift a newspaper without finding (by advertisements for workmen, and counter advertisements advising workmen

not to engage) that disputes and strikes are of very frequent, not to say of constant occurrence. The main object of trade societies is to keep up wages, and I am not prepared to assert that they do not in some cases succeed, especially where by limiting the number of apprentices they keep any given trade in few hands; but I wish to inquire if strikes be a necessary condition to that success; or if, on the contrary, any possible success achieved by such process could not equally be arrived at by less objectionable means; and if it be not possible to arrange trade disputes without resort to this fearful sword of strife.

The main causes of strikes have been threefold—the desire to limit a trade, the introduction of new machinery, and dissatisfaction with the rate of wages paid, or proposed to be paid. Sometimes the strike is against the use of the new machine, and sometimes against the arrangements rendered necessary by its introduction. A Liverpool shipbuilder in 1859 got the copper for a ship's bottom punched by machinery, ready for nailing on, but his workmen struck, and obliged him to set the hand punchers to work to go over the job again as if it was not already done, and to pay them for the sham. The shoemakers of Northampton struck against the employment of the sewing machine, and so strong was the sympathy of "trade societies," that subscriptions were sent in, in aid of the strike, from the users of the machine in Kettering, and the very machine shop in London, which supplied the obnoxious articles. It seems to be very difficult for working men to get rid of the idea that improved machinery will lessen the demand for labour, although both theory and practice prove the contrary. It is quite certain that for a new machine to get adopted, it must make a profit to its owner over and above that of the machine which it supersedes, and that increase of profit increases the future wages fund, and, consequently, the demand for labourers. And it is equally certain that the increased demand for labour, the increase of population and of material wealth, have been most rapid where machinery has achieved the greatest perfection, viz., in the cotton trade of Lancashire.

It is quite true that the whole increased demand for labour arising from a new machine may not be confined to the trade in question, and that for a time some hands may be displaced; but ought the temporary displacement of a comparatively few persons to hinder the progress which, by increased production of wealth and lowering of prices, benefits the whole world beside? And is it possible by any strike to stay the progress of invention? I hope and believe it is not.

But most of the strikes which have come under my observation have resulted from dissatisfaction with the amount of wages paid. This dissatisfaction (so far as the cotton trade is concerned) is sometimes general and sometimes local. It is general when the

state of trade requires a reduction of wages, or when workmen think the state of trade justifies a rise; it is local when the hands at one place think themselves worse paid than the same class of hands in other places. The workmen seem to desire to have a regular standard list of wages throughout each department of the trade, regardless of the advantages or disadvantages of particular localities, the qualities of the machinery used, or of the material to be wrought up. If trade always left a large margin of profit these differences might not be important, but when a manufacturer has to keep up a large establishment upon a single penny per lb. between the price paid for yarn and the price obtained for cloth; then a shilling per ton extra for coals, or the existence of an extra tollbar, and a few extra miles of carriage to the market, make the difference between profit and loss, and this difference can only be remedied by means of wages. The manufacturer also feels that if he lays out capital on improved machinery, or supplies extra good material, and thus enables his workpeople to produce more in a given time, he ought to get a trading profit upon such extra outlay, just as he would if he invested in extra *matériel*, or wages on old machinery.

The price of labour is a bargain between the employer and the workman, and it is not unnatural that each should put a different estimate upon the proposed arrangement. Any dissatisfaction on the side of the workmen is submitted to the central committee of their society, which advises whether to accept the terms of the employer, or to organise a strike, in order to force the employer to give the price demanded by the society. The difference in dispute is sometimes not more than  $2\frac{1}{2}$ , frequently not more than 5, and seldom exceeds 10 per cent. of the wages paid. The duration of a strike varies very much. The great Preston strike lasted thirty-eight weeks, the one at Padiham twenty-nine weeks, Bolton six weeks, Ashton and district six weeks, Clitheroe six weeks, Blackburn three weeks. The strike of the London builders lasted twenty-six weeks, and the late Colne strike fifty weeks. Let us assume 5 per cent. as the average amount in dispute, and assume that the strike is in every case successful, and we shall then find that the adage which is applied to disputants at law, that "he who wins loses," is equally applicable here. A week is nearly 2 per cent. of a working year, and of course represents nearly 2 per cent. of the wages of a year. If, therefore, a strike for 5 per cent. succeeds, its results will be roughly exhibited in the following table:—

		Years of Work at the Extra Rate.	
The loss of 1 lunar month's wages will require to make it up ...	1	.....	$1\frac{1}{5}$
" 2	"	.....	$3\frac{1}{5}$
" 3	"	.....	$4\frac{2}{5}$
" 6	"	.....	$9\frac{2}{5}$
" 12	"	.....	$19\frac{1}{5}$
" $12\frac{1}{2}$	"	.....	20
		2 L 2	



But, as money is worth 5 per cent. at interest, it follows that if a strike for 5 per cent. lasts  $12\frac{1}{2}$  months, and then succeeds, and maintains the increase for twenty years, the workman has lost in interest much more than he has gained in wages, and that, therefore, no part of the loss can ever be made up; for if he could have worked for the lower sum during the year of strike, and have invested instead of spending the money, the year's wages would have grown into three years' wages nearly by the time in which the gain of the strike would make up for the loss of a single year. Of course, a strike for 10 per cent. would require only half the above term to make up the loss, while a strike for  $2\frac{1}{2}$  per cent. would require double the time exhibited in the table, or forty-one years.

The strike of the London builders in 1859 was for 10 per cent. of time, or its equivalent 10 per cent. of wages, and, as it lasted twenty-six weeks, would, if successful, have required  $10\frac{2}{3}$  years of continuous work at the extra rate to make up the loss of wages sacrificed. The amount in dispute between the weavers of Colne and their employers did not average more than  $3\frac{1}{2}$  per cent. and, had the strike been successful, would have required more than twenty-eight years' continuous employment at the advance to make up the amount of wages lost, by which time the lost wages would, at 5 per cent., have quadrupled. In the cotton trade, wages appear to undergo something like a general adjustment every three or four years, in consequence principally of defective or abundant harvests of corn or cotton, or both. Such adjustments occurred in 1853, in 1857, and in 1860. If, therefore, the strikes which occur were spread equally over these periods, they would, even when successful, only affect the rate of wages for about two years upon an average, and therefore could not make up for more than about five weeks' loss of wages by strike. But strikes are seldom successful to the workmen, so that while they sacrifice the wages of the present time, they also lessen the wealth of the world, and so lessen the future demand for labour, and put further off the day when any advance of wages will be possible.

Here is a list of a few unsuccessful strikes, with a rough estimate of the losses consequent thereon. Some of these were among spinners, and some among weavers; and, learning that about 45*l.* in weaving and 80*l.* in spinning will represent the capital per hand engaged, I have assumed, for the purpose of my calculations, 65*l.* as the general average, and fifty weeks as the average working time in a year:—

*Example of Unsuccessful Strikes, with Estimates of Loss to Society.*

Name of Town.	Number of Hands.	Weeks of Strike.	Wages per Week.	Amount of Loss.	Profit at $12\frac{1}{2}$ per Cent. on Capital.	Subscriptions at One-fourth Wages.	Total Loss.
Preston .....	15,000	38	s. 15	£ 427,500	£ 92,625	£ 106,875	£ 627,000
Padiham .....	800	29	—	17,400	3,770	4,350	24,520
Clitheroe .....	3,000	6	—	13,500	2,925	3,375	19,800
Blackburn and district.....	40,000	3	—	90,000	19,500	22,500	132,000
Ashton and district.....	22,000	6	—	99,000	21,450	24,750	145,200
Colne .....	1,500	50	—	56,250	12,187	14,062	82,499
Bolton .....	12,000	6	—	54,000	11,700	13,500	79,200
				757,650	164,157	189,412	1,110,219
				325,000	53,125	81,250	459,375
London builders	10,000	26	25				
				1,082,650	217,282	270,662	1,570,594

The associated colliers have, upon their own showing, spent about a quarter of a million on strikes since 1842; and the amalgamated engineers threw away nearly half a million in 1852. According to our assumption of capital of 65*l.* per individual, the amount thus lost by the cotton trade alone, would have given employment and wages to 17,184 persons, and if every second person was the head of a family they would represent 42,950 individuals whose bread is thus wasted in perpetuity. And all the above-named, except the Preston strike, have occurred within the last two or two and a-half years, and all have ended unsuccessfully; so that there has been no compensation whatever.

I am aware that I may be thought wrong to try to treat these great problems so exclusively by a money estimate; but let me explain that money is simply a convenient expression for the necessities and comforts of life, which represent life itself, with all its feelings, all its hopes, and all its aspirations. If I could see that these great sacrifices were necessary in order to secure a proper position for the working man they would excite my highest admiration; but I cannot see the desirability of restricting any man, or any number of men, from placing their sons in the best paid trades if they can find employers who are willing to take them, nor do I see the desirability of a society of workmen dictating what amount of wages an employer shall pay to any individual. But if a trades' society, in addition to operating as a benefit society in cases of sickness and death, should also become a simple trade agency where information might be obtained every day of the state of employment and the amount of

wages in every locality where the same trade obtains; and should also assist to remove applicants into the best markets, most of the strikes for wages would be prevented; all the results of a successful strike would be achieved, and whenever the success of a strike is possible, without its expense and loss.

The exception would be where, as at Colne, a strike occurs from misunderstanding or misrepresentation as to the wages paid elsewhere. This strike occurred during a very prosperous trade, when labour was so scarce that every hand employed at Colne might readily have got work elsewhere. But the hands refused to go, because those who did leave soon found that they could do better at home than elsewhere. This class of cases would furnish useful work for an arbitration court. But the constitution of such a court seems to be a great difficulty, if we may judge from the parliamentary discussions on the Masters and Operatives Bill, 1860-1.

I would throw out the hint for consideration that such a court should be honorary, each party to the dispute naming an equal number of jurymen, the County Court judge for the district being appointed umpire, and from this court I think it would be desirable to exclude lawyers. The parties would be evenly balanced, the umpire would be perfectly disinterested, and legal expenses would be avoided. I am advised that this plan would not be objected to by working men if power was given to carry a case to an adjoining district to avoid a prejudiced umpire. These two modes of avoiding strikes could be put in operation, the one by trade societies themselves, the other by the sanction of the Legislature.

But there is a third plan now coming rapidly into operation, which will severely test the capacities of the working classes, and prove whether or not the unfavourable opinions expressed of them lately in Parliament be well founded. I allude to the rise of *co-operative societies* and manufacturing companies with limited liability. I have no doubt that companies and friendly societies for manufacturing purposes, covering a nominal capital of two millions sterling, have been registered. Some of these are simply joint-stock companies in the ordinary sense of the word, except that the mill hands are the principal shareholders, and have, therefore, an interest in turning out the best of work, in order to increase their wages by the division of profits. In other cases various classes of men invest capital as shareholders, and the articles of association provide that after paying interest at the rate of 5 per cent., and allowing for depreciation of stock, the remaining profit shall be divided between the paid-up capital of the shareholders, and the amount of wages paid to the operatives at such a rate per pound as it will make upon the two sums added together. Thus, if 65*l.*, represents the capital required to employ one workman, and that workman earns 20*s.* per week,

then the half-yearly dividend would be upon 91*l.*, in the proportion of 65 to the shareholders, and 26 to the workman. If these latter societies pay the ordinary wages, they will, as a matter of course, have their choice of hands; for the workpeople will learn that even if they spend the whole of their ordinary wages and simply allow their dividends to accumulate as shares, twenty or thirty years of employment with ordinary profits will then give nearly as much for interest of money as for wages. Such prospects will secure prudential habits, and the operations of these societies will show to workmen generally what amount of wages can be safely paid at any time; and the "advocates" who have hitherto promoted strikes in the belief that workmen were being oppressed, and that refusal to work was the only remedy, will now employ their energies in getting up co-operative societies, will work to save capital instead of to waste it; and will learn that if wages and profits are low, as when harvests are bad, harder work, instead of no work, at the same or a more profitable occupation is the only remedy.

If the real co-operative societies extend and succeed, it is possible that we may see individual employers, in self-defence, constituting their workpeople partners in profits, in the belief that the extra interest excited in work would make the employers' share of profit greater than the whole amount formerly obtained. Such an arrangement would also tend to prevent strikes; for, if the hands thought wages were too low, they would see it made up by profit, so that the result would simply be an enforced measure of prudence. These societies have yet to bear the test of "bad times;" and, although they have some advantages over the individual employer, as in the extra devotion of the well-disposed workmen, and in the possibility of living even without profits or interest of capital, where that capital belongs *bonâ fide* to the shareholders; yet they are not likely to pass scatheless, through a crisis, and are only a present remedy for strikes to the extent that workmen who believe themselves wronged can be persuaded to submit to that wrong while they earn and subscribe capital sufficient to employ themselves.

To resume, therefore, I conclude that a strike to restrict a trade, either by limiting the number of apprentices, or preventing the employment of efficient workmen who have not been apprenticed, being an invasion of individual liberty, ought not to succeed; and that the more rigidly such restrictive rules are enforced the sooner will they be destroyed. Strikes against improved machinery are attempts to stay the progress of human intellect and of civilization; they originate in ignorance of the tendency of such improvements; the displacement of labourers caused by new machinery is an occurrence to be provided against by well-regulated trade societies, in the form of temporary relief, until the labourers can be replaced or

otherwise provided for. But strikes against new machinery can never permanently succeed, and all money thus spent is therefore entirely thrown away. When a trade is in such a position as to render a union of employers for a reduction or against a rise of wages possible, a strike cannot succeed; for as long as there is machinery standing idle, if a fair profit be possible, hands will be sought for that machinery at a rise of wages if necessary, in order to secure the profit; and whenever it is possible for a local strike to succeed it must be either because wages in that locality are below the average, or because the demand for hands being general the local employers give way rather than lose their workpeople. That in all such cases trade societies, by operating as trade agencies, and assisting in the gradual removal of hands to places already secured for them, would achieve an equal success without a struggle, without wasting a week's wages, and without a thousandth part of the ill-feeling which is consequent upon a strike. Strikes are therefore either wholly injurious, or an entire waste of effort to an extent, as I believe, of not less than a million sterling per annum, or the bread of 38,470 persons, with their natural increase for ever. I think that a court of arbitration would be able to deal with local misunderstandings and misrepresentations, and would heal many differences before they came to an open rupture; and that co-operative societies, whether they succeed or fail, will find employment for much talent hitherto misdirected, and will teach lessons of wisdom and prudence which will render such a foolish waste of capital as that lost in and spent upon a strike for wages almost impossible.

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*On the EXTENT and RESULTS of CO-OPERATIVE TRADING ASSOCIATIONS at ROCHDALE. By REV. W. N. MOLESWORTH, M.A., Incumbent of St. Clement's, Rochdale.*

[Read before Section (F), at Manchester, 7th September, 1861.]

THE progress of co-operation in Rochdale has excited much attention and interest in various parts of the country, and I have been requested to read a paper on the subject before this Section. I am sorry that I have had very little time to devote to the preparation of it. I regret this the more because the subject is certainly one that deserves a much more elaborate treatment than I have been able to give to it. Co-operation is producing a great change in the condition of the working class, and in the relation which that class bears to every other class of the community. Like all great changes, it has called forth on the one part, warm, energetic zeal, and on the other profound though not loud hostility. With these passions we have nothing to do here. We must thrust them aside as being hostile to that philosophic calmness which is the first and most essential qualification of the inquirer after truth. To see in order to foresee, to observe to investigate, and to state, in a convenient and condensed form, the results of our investigations, this is our mission, and this is the spirit in which I propose to enter into the examination of the subject.

I had originally intended to have given an account of the general progress of co-operation throughout the kingdom, and from it to form as accurate an estimate as my materials would enable me to do of its future prospects; but this undertaking I find to be too great for the very limited time I have been able to devote to the subject, and therefore I propose to confine myself to a brief statement of the progress which has been made in Rochdale, where the movement may be said to have originated, and whose society has been the type and the parent of thousands of similar societies which now exist in various parts of the kingdom.

The first thing that seems to be requisite, is to give some sort of definition of the principle which is embodied in these societies, and I cannot do this better than by copying their own statement of their objects.

"The objects of this society are the social and intellectual advancement of its members; it provides them with groceries, butcher's meat, drapery goods, clothing, shoes, clogs, &c. There are competent workmen on the premises, to do the work of the members, and execute all repairs. The capital is raised in 17.



“shares; each member being allowed to take not less than 5, and not more than 100, payable at once or by instalments of 3s. 3d. per quarter. The profits are divided quarterly as follows:—1st. Interest at 5 per cent. per annum, on all paid-up shares; 2nd. 2½ per cent. off net profits for educational purposes, the remainder divided amongst the members in proportion to money expended. For the intellectual improvement of the members, there is a library consisting of more than 3,000 volumes. The librarian is in attendance every Wednesday and Saturday evening, from seven to half-past eight o'clock. The newsroom is well supplied with newspapers and periodicals, fitted up in a neat and careful manner and furnished with maps, globes, microscope, telescope, &c. The newsroom and library are free to all members. A branch reading room has been opened at Oldham Road, the readers of which meet every second Monday in January, April, July, and October, to choose and sell the papers.”

I have given this statement at a full length, though there are some portions of it which may seem not quite relevant to our purpose, yet it contains nothing which does not throw some light on the spirit in which the society has been conceived and carried on. In sciences, which have been carried to a high pitch of perfection, such as astronomy and the physical sciences, accuracy of definition is indispensable, but in the less advanced and more complex questions of social science, we cannot define with the same degree of strictness, and it is much better to make our boundaries include too much than to render them too narrow.

It may, perhaps, provoke a smile to find in the above-cited statement of objects, “social and intellectual advancement” placed in such close juxtaposition with “groceries, butcher’s meat, drapery goods, clothing, shoes, and clogs.” But there is a real and very close connexion between these two classes of things. Men must be provided with the necessaries of life, or they will be unable to devote attention to their social and intellectual advancement; and the more abundantly their material wants are supplied, and the more they are released from care and anxiety about these wants, the more time will they have at their disposal to devote to their mental and spiritual improvement; and the greater, as a general rule, will be their intellectual, social, moral, ay, and I would even add, their religious progress. There are, no doubt, instances in every class, and in every society, in which the increase of prosperity is attended by an increased indulgence of the lowest passions and vices of our nature; but all experience shows that such cases are rare and exceptional, and that for one instance in which the leisure and opportunities which increased prosperity brings, are abused and perverted, there are thousands in which they are rightly and beneficially used.

I know that it is a sort of moral and philosophical common place to associate wealth with licentiousness, corruption, and decay—to point to Tyre, and Babylon, and Rome as instances and proofs that the acquisition of wealth, and the consequent command of all the necessaries of life, and a vast abundance of superfluities, are the harbinger of decay, and the cause of the most frightful moral and political dissolution. But it was not the wealth of these cities, but the excessive inequality of its distribution that produced their downfall. When the opulence of the few stands in ominous contrast with the squalidness and misery of the multitude—when on the one hand there is superabundance and on the other starvation, here riotous licentiousness, and there cowering, downtrodden, sullen servility—when every Dives looks on thousands of Lazaruses—then it is that the wealth of a State is the cause of its dissolution, and the forerunner of its fall. But when the wealth of a society is not equally but equitably distributed through all its various classes, when in fact it is allowed to take its normal and natural course, then the material progress becomes the instrument and the condition of every other description of progress.

I have dwelt on this point at a length somewhat out of proportion to the size of the paper, because it is one with regard to which a good deal of error and misconception prevails, and because the principle of making material progress the basis of intellectual and social progress is, I believe, a fundamental principle of co-operation. It is a principle which the Rochdale co-operators seem to have instinctively grasped from the very first, and to which they have steadfastly clung ever since. This wise pertinacity in regarding the material progress as the basis and foundation of every other descriptions of progress, has to my mind hallowed and sanctified their enterprise, distinguishing it most honourably from many institutions of a similar constitution, though founded and conducted in a less large and generous spirit, and preserving it from the ruin which has overtaken so many of them.

Having now pointed out the general ideas on which the society was founded, and which were more fully and distinctly developed as it grew, we shall proceed to trace its financial history.

In the year 1843, when the “Rochdale Equitable Pioneers’ Co-operative Store” commenced, the new poor-law had prevented the operatives of Rochdale from regarding parochial relief as a source on which they might always rely in case of loss of work, and of those periodical crises to which our manufacturing system has always been liable. The recent failure of the Rochdale Savings’ Bank, which had been plundered to fearful extent by its accountant, had destroyed all faith in that popular institution; and the Rochdale operatives, who looked beyond the present moment, seemed to have

no alternative but that of hiding their little savings in an old stocking, to be brought out of its place of concealment when the day of distress arrived. It was under these circumstances that twenty-eight Rochdale operatives contributed a sovereign each, for the purpose of establishing a shop, at which they might purchase genuine groceries and other articles of ordinary consumption at a moderate rate. It was an experiment which had often been tried before on a larger scale, and apparently under more favourable auspices, and had as often failed, but from the causes we have mentioned, the condition of the Rochdale operatives was desperate, and like brave men they determined not to succumb, but to make another effort and hope for better days.

The following table taken from their Almanac for the year 1861, gives a very good view of the operations of the Rochdale society from its commencement to the close of last year:—

*Operations of the Rochdale Equitable Pioneers' Co-operative Society, from 1844 to 1860.*

	Number of Members.	Amount of Funds.	Business Done.	Profits Made.
		£	£	£
1844 .....	28	28	—	—
'45 .....	74	181	710	32
'46 .....	80	252	1,146	80
'47 .....	110	286	1,924	72
'48 .....	140	397	2,276	117
'49 .....	390	1,193	6,611	561
'50 .....	600	2,299	13,179	889
1851 .....	630	2,785	17,638	990
'52 .....	680	3,471	16,352	1,206
'53 .....	720	5,848	22,760	1,674
'54 .....	900	7,172	33,364	1,763
'55 .....	1,400	11,032	44,902	3,106
1856 .....	1,600	12,920	63,197	3,921
'57 .....	1,850	15,142	79,788	5,470
'58 .....	1,950	18,160	71,689	6,284
'59 .....	2,703	27,060	104,012	10,739
'60 .....	3,450	37,710	152,083	15,906

After the society had been carried on for seven years, it was found that more capital was offered to be invested than could be profitably employed in the store. At the same time there were great complaints of the quality of the flour sold in the shops, which was supposed in many cases to be greatly adulterated; in fact, there was at the time a very strong feeling on the subject of adulteration everywhere, and this feeling very naturally applied to

flour, as a chief constituent of food, more than to any other article. The consequence was that in the year 1850 a Co-operative Corn Mill Society was established, for which a substantial mill was built in Weir Street, Rochdale, the financial progress of which is exhibited in the following table:—

*Financial Statistics of Rochdale District Corn Mill Society, from 1850 to 1860.*

Year.	Amount of Funds.	Business Done.	Profits Made.
	£	£	£
1850 .....	—	None.	—
'51 .....	2,163	*	None.†
'52 .....	2,898	7,036	336
'53 .....	4,143	16,679	208
'54 .....	3,671	22,047	557
'55 .....	4,626	28,085	1,376
1856 .....	8,784	38,070	773
'57 .....	10,601	54,326	2,007
'58 .....	14,181	59,188	3,153
'59 .....	18,236	85,845	6,115
'60 .....	26,618	133,125	10,164

\* Account mislaid.

† 1851, loss 421*l*.

The success which attended the operations of these two societies produced great confidence, and was followed by a desire on the part of the operative class to invest their savings in them, and this soon produced the necessity of finding another investment for their capital. Accordingly in the year 1854, a manufacturing society was formed on the same general principles as the store and the corn mill society, and has been attended with similar success. At first they hired buildings in which the manufactures were carried on. But on the 22nd April, in the year 1859, they laid the first stone of a factory of their own, which was completed, I believe, without a penny being borrowed during the progress of the work (in fact, they always had a very large balance at the bank); and it is universally admitted to be one of the best and largest factories in the borough of Rochdale. Scarcely was this gigantic work finished, than they found themselves in a position to commence another factory alongside of it, which is now rapidly rising, and for the completion of which there is reason to believe that ample funds will be forthcoming.

But these great works,—such has been the rapidity with which capital has been developed by the success of their operations,—have not exhausted their resources. In the year 1860, while the great factory was still rising, a sick and burial society and a Turkish bath were established by some of the more active and energetic members

of the co-operative society; and lastly, in the present year, a land and building society has been established, and is already actively engaged in erecting commodious dwellings for the working class.

The capital of these various institutions at the present time is thus estimated:—

	£
Co-operative store .....	39,335
Corn mill .....	29,962
Manufacturing society .....	71,695
Land and building society .....	1,000
Turkish bath .....	350
	-----
Total .....	142,342
Deduct loans from store to other societies .....	16,613
	-----
Leaving a net capital of .....	125,729

This capital consists of actual money, or stock purchased by money, and which might very fairly be estimated at a value considerably above its cost price.

Now let us pause for a moment to consider the progress that has been made.

	£
In the year 1844 the capital was .....	28
„ 1850 commencement of corn mill .....	2,299
„ 1854 „ man. soc. ....	11,144
„ 1861 .....	125,729

But this does not by any means represent the whole of the financial co-operative progress in Rochdale. Several other societies have come into existence, which, though independent of this, not recognizing so clearly as this society the principles of co-operation as laid down by them, are nevertheless societies which receive and develop the resources of the working classes, which tend to raise them morally, socially, and intellectually, as well as materially, and which must not therefore be wholly left out of our account in estimating the progress which co-operation has made in Rochdale. It would be foreign to my present purpose to enter into an enumeration of their operations. I only refer to them in order that the Section may understand that the progress described in this paper is very far from representing the whole of the results of the principle of co-operation in the town of Rochdale.

There is one thing to which I would advert before I leave the subject, which is greatly to the credit of the principal promoters of this movement, and is all the more necessary to be mentioned, because the contrary is sometimes asserted. I cannot, of course, speak for all of them, but as far as I have had an opportunity of observing them, I have been struck with the absence of that levelling spirit,

and of that desire of self-aggrandizement which has characterized some of the working-class attempts to elevate themselves. The chief ambition of the principal promoters of the movement in Rochdale appears to me to be to raise themselves by raising the class to which they belong, without desiring to leave it, and without the slightest wish to depress or injure any other class. Their object and their ambition appears to be that the working class should be well fed, well clothed, well housed, well washed, well educated—in a word, that they should be respectable and respected. If any taint of the socialist and communist theories in which the society originated still cleaves to them, it is being rapidly worked off, and will, I am persuaded, shortly disappear. And, to their honour be it spoken, so far are they from trying to monopolize the advantages they have acquired, that they are animated by a generous spirit of proselytism, and put themselves to considerable trouble and expense in communicating to inquirers from all parts of the kingdom the results of their experience, and aiding them in the formation of new societies. The following extract from a paper they have printed for the use of persons wishing to form new societies, will serve to illustrate this remark, and will, I am sure, be listened to with interest by the Section:—

“1st. Procure the authority and protection of the law by enrolment.

“2nd. Let integrity, intelligence, and ability be indispensable qualifications in the choice of officers and managers, and not wealth or distinction.

“3rd. Let each member have only one vote, and make no distinction as regards the amount of wealth any member may contribute.

“4th. Let majorities rule in all matters of government.

“5th. Look well after the money matters. Punish fraud when duly established by the immediate expulsion of the defrauder.

“6th. Buy your goods as much as possible in the first markets; or, if you have the produce of your industry to sell, contrive if possible to sell it in the last.

“7th. Never depart from the principle of buying and selling for ready money.

“8th. Beware of long reckonings. Quarterly accounts are the best, and should be adopted when practicable.

“9th. For the sake of security, always have the accounted value of the ‘Fixed Stock’ at least one-fourth less than its marketable value.

“10th. Let members take care that the accounts are properly audited, by men of their own choosing.

“11th. Let committees of management always have the authority of the members before taking any important or expensive step.



"12th. Do not court opposition or publicity, nor fear it when it comes.

"13th. Choose those only for your leaders whom you can trust, and then give them your confidence."

The principles by which the society whose progress has been described is distinguished from the numerous joint-stock societies established under the Limited Liability Act, appear to me to be these:—

1. To make the material improvement of the working class subservient to their social and intellectual advancement.

2. Neither to give nor take credit.

3. To keep the governing body under the constant and vigilant superintendence of a proprietary resident on the spot, and the greater part of whom are acquainted with the nature of the operations carried on with their capital. This is a cause of their success to which, I believe, attention has not yet been directed, but which is very important.

On these principles two questions arise—

1. Are they sound?

2. Are they applicable to manufacturing operations, as well as to store for the sale of goods?

On these questions I do not profess to dogmatise. I see this institution established and carried on for sixteen years under my own eyes. I am naturally desirous to investigate its character; it is an inquiry of no small importance, and one which I think ought to receive the careful attention of this Section. I trust that it will obtain a calm and dispassionate consideration, that we shall have no declamation, no invective, and that gentlemen present will abstain from introducing irrelevant considerations into an investigation quite large enough to occupy all the time we shall be able to devote to it.

*On the ALTERED CONDITION of the EMBROIDERED MUSLIN MANUFACTURE of SCOTLAND and IRELAND since 1857. By JOHN STRANG, LL.D., City Chamberlain, of Glasgow.*

[Read before Section (F), at Manchester, 5th September, 1861.]

THERE are few things more curious to note than the rise or decline of any manufacture whose existence and value mainly depend on female caprice or changeful fashion; and among the various industries of this nature in the world, and particularly in our own country, perhaps none, from its past and present condition, affords better evidence of this peculiarity than the manufacture of *embroidered muslins*, exhibiting as it does a most rapid progress and an equally remarkable decline.

At the meeting of the British Association at Dublin, in 1857, I had the honour of bringing before the Economic Section a paper on "The Rise, Progress, and Value, of the Embroidered Muslin Manufacture of Scotland and Ireland," in which it was shown that this delicate and beautiful branch of artistic industry had not only given a stimulus to taste in design and execution, so as to have gained the patronage and encouragement not only of the refined, and even of the working classes in Europe and America, but had at the same time afforded wide-spread employment to a vast number of females in Scotland and Ireland—not pent up in close and contaminating factories, but living under the safeguard of the domestic roof, thereby increasing the comforts and encouraging habits of industry within the cottage and the cabin, and adding to the well-being and prosperity of the nation. It was also then showed that there were few manufactures in which existed so great a subdivision of labour. Commencing with the spinning of yarn for making the cloth, the warping and weaving of the yarn, and the reeling of the cotton for embroidering; and followed by the designing and drawing of the patterns either on the stone or zinc plates; the block, stereotype, or copper engraving; the printing of the patterns on the cloth; the despatch of the different pieces of printed cloth to at least 400 or 500 agents in Ireland; the distribution of these throughout the country for embroidering; their return to the agents, and their transit back to the warehouses from which they were issued; their careful examination on their return, and their preparation for the bleacher; the various operations to which they were subjected at the bleach-field; their return to the warehouse, there to be made up, ironed, folded, ticketed, and arranged according to quality and price; and, finally, their being placed in fancy paper boxes, and packed for despatch either to the home or foreign market. I also showed that while a large portion of the labour employed in this industry

depended on Ireland, the chief seat of the manufacture was in *Glasgow*. It was in the latter city where the cloth was chiefly woven; where the patterns were designed and printed; where the goods were bleached; and where they were made up, washed, ironed, and finished for the market; and, in particular, where the chief commercial and financial part of the trade was carried on. In short, while the initiatory and concluding manipulations connected with this industry were almost wholly performed in *Glasgow*, the needle-work, although partly done in *Scotland*, and particularly in *Ayrshire*, was chiefly executed by the female peasantry of *Ireland*.

The gross value of the sewed muslin manufacture of *Scotland* and *Ireland* in 1856 amounted to little less than a million pounds sterling, and was disposed of not only in about equal proportions in the home market, and in the United States of America, but also in considerable quantities in *Canada*, *Australia*, and almost all the other markets open to British enterprise. At that period there were employed in the production of the manufacture no less than 2,200 weavers, 450 pattern printers and pressmen, 200 designers and salesmen, and 3,680 females occupied within the warehouse doors in the various manipulations of sewing, darning, ironing, making-up, &c., while in the work of embroidery itself about 200,000 females were employed in *Ireland*, and 25,000 in *Scotland*. The amount of wages paid annually to the several immediate parties employed was shown to have been at least 700,000*l.* The fact is, that among the many industries of Great Britain there are few into which individual labour enters more deeply than into the muslin embroidery manufacture, and in which, particularly, the female labourers throughout *Ireland* and throughout *Ayrshire*, in *Scotland*, have a deeper interest.

Such was the state of this manufacture when it reached its culminating point in 1857. Let us see what its condition now is, founded on returns lately obtained from sources that may be relied on. It appears, then, that the number of persons employed during the summer of 1861 in this branch of industry in *Scotland* and *Ireland* were as follows:—

	Persons Employed.	With Annual Wages amounting to
		£
Weavers .....	280	8,600
Printers .....	150	5,400
Designers and salesmen ....	96	5,850
Warehouse girls .....	680	11,648
Sewers ( <i>Ireland</i> ) .....	75,000	136,000
„ ( <i>Scotland</i> ) .....	9,000	26,000
Sundries .....	—	7,002
In all .....	85,206	200,500

Showing a falling off in the annual amount paid for labour of no less than 499,500*l.*, and a probable falling off in the number of persons employed of 146,324. Of these 5,324 were engaged in the initiatory and finishing processes, and 141,000 were the female embroiderers of *Ireland* and *Scotland*, 125,000 belonging to the former, and 16,000 to the latter. While this branch of industry in 1856 and 1857 afforded to those engaged in embroidery alone wages to the extent of 486,300*l.* a year, in 1861 the annual wages had dwindled down to about 100,000*l.*—the whole labour employed in the various details of the manufacture giving annual wages to the extent of 700,000*l.* in 1856 and 1857, and only a little more than 200,000*l.* in 1861. In short, this trade, which formerly had been so flourishing and so progressive, has in the course of a few short years fallen off from an annual value of fully a million sterling to an amount which this year scarcely reaches a third of that sum, occasioning thereby much distress and privation among the various workers employed, but especially among the industrious peasant girls of *Ireland* and the West of *Scotland*.

If such be the general condition of a manufacture which but a few years ago was not only remunerative to the manufacturing capitalist, but peculiarly beneficial to the wide-spread host of manipulators connected therewith, the distress which now arises from its sudden decline will appear more palpable when we look more narrowly into the altered condition of the workers' wages. For example, when we represented in our former paper that the sewers in *Ireland* amounted to 200,000, and were receiving 400,300*l.*, which showed a little more than 1½*d.* per day, these parties were classed thus:—

1st, Those who took up the work at any moment they could spare from domestic duties.

2nd, Those who were able, and had the opportunity of engaging in field labour, and only took to sewing when out-door work was not to be had.

3rd, Those in towns who could get no out-door work, and young girls in the country who were unable for field labour, and who were employed solely at sewing.

In 1856 the daily earnings of this last class ranged from 3*d.* to 1*s.* per day, or an average of about 5*d.*; whereas the same class are incapable of earning more than from 1*d.* to 5*d.* per day, the average being barely 2*d.*

As to the warehouse girls, who were represented in 1856 to have amounted to 3,680, and who then received 76,128*l.*, or about 8*s.* per week, it may be stated that many of these carried the work to their own homes, in which case there might have been two or three, or even more, of a family employed in the work; but as the name of

the one only who took it from and returned it to the manufacturer was on his books, the number really employed must have been greater than 3,680, and their average earnings probably not more than 6s. per week. At the present moment those 3,680 that were on the manufacturers' books in 1856 have dwindled down to 680; while the wages paid to these 680 only average about 5s. per week, including the work done by those they may employ.

The more closely, in fact, we investigate the details of this manufacture the more important will the labour it employs appear to be, producing, as it does, a wide-spread amount of suffering when it is dull, and a wonderful diffusion of comfort when it is brisk. Whatever may be the causes that have led to this sadly-altered condition of a manufacture which encouraged so much artistic skill and taste, and scattered so much enjoyment around the hearths of the homesteads of Scotland and of the cabins of Ireland, we suspect that the chief source of its late decline may be mainly found in the *capricious fickleness* of female fashion.\* And although it may be difficult to fight against fashion in a manufacture so fanciful as this certainly is, still it is to be hoped that so long as the tasteful designer continues to dream after some new shape or some new pattern—so long as the unwearied energy of the manufacturer is exerted to create new articles of utility, and the restless activity of the merchant is spent on discovering some new market for their disposal, the future of the muslin embroidery manufacture will ere long become, as heretofore, a pleasing and profitable occupation during the intervals of field labour and domestic duties to at least as great a number as it formerly did of the industrious females of Scotland and Ireland.

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\* While the American civil war has no doubt tended mechanically to aggravate the present sad condition of the muslin embroidery manufacture, the leading cause of its declension must be fairly attributed to the glut which the over-production of 1856-57, occasioned both in the home and foreign market, forcing sales at ruinous prices, and thereby *vulgarising* the manufacture and tending to render it unfashionable among the better and wealthier classes

POST OFFICE SAVINGS' BANKS. *By* EDWIN CHADWICK, C.B.

HAVING been asked by several members of Parliament my opinion on the new measure for *Post-Office Savings' Banks*; I have stated, in answer, that I know no measure proposed in late times affecting particularly the condition of the wage, and the lower middle classes of the community, which appears to me to be so excellent in principle. There is, however, one aspect which I beg you will allow me to point out in which its importance has not been stated, namely, as a measure for the prevention of much crime.

It has appeared in official investigations, made by myself and colleagues, under the Constabulary Force or Police Commission of Inquiry, as to the causes and incitements to crime, that a large proportion of burglaries and murders—especially the murders of old and lone people—have been on account of known or suspected hoards of money. A recent execution was for a murder with this motive. The murder committed by the man named Mullins on an old woman living at Stepney, was one of this class, of which other examples of continued occurrence may be recalled to recollection. A large proportion of domestic robbery and crime is for sums of money, which for the station of the parties are considerable, kept in the house; and it has somewhat surprised me on the occasions which continually present themselves in our criminal courts, that the lesson does not commonly suggest itself to be given from the Bench—that such sums ought, for the avoidance of temptation to rapacity, and for the sake of personal safety as well as for the sake of economy, to be in some well-assured place of deposit in some bank.

We found that such classes of offences are of *far less* frequent occurrence in towns in Scotland than in England,—apparently from the simple fact that from the habit of banking prevailing amongst the poorest classes—shopkeepers, and tradesmen, and others—the smallest sums are ultimately taken to the bank, and no such amounts of money are kept habitually upon the premises or hoarded as in England.

Such facts as this habitual exposure of large sums of money, and the consequent regular classes of crimes therefrom, come under a wide chapter to show what cannot be expected to be done by any police, and what must be done by the public themselves, or by means of collateral arrangements and institutions for the prevention of crime. Good banking institutions, with arrangements in detail for the convenience of the many in the keeping and transmission of money, may be almost regarded as institutions of a preventive police.



If any one will imagine what must be the consequences if all the money belonging to the higher and middle classes in banks of deposit were kept at home in bullion, and all that is carried about in cheques were carried on the person in coin, and if he will consider how much personal danger would increase, notwithstanding an increased army of police, he will go far to realize the actual state of insecurity of persons and property of the lower classes in districts and conditions to which the practice of banking has not yet been extended.

After all, if the whole of the deposits in the Savings' Banks belonged to the labouring classes (and a larger proportion of them than is commonly supposed are from the middle classes), the amount is inconsiderable from a population who spend every year greatly beyond the total amount of many years' accumulations, or upwards of sixty millions per annum, in various stimuli, the greater proportion of which they would be better without.

The causes of secret hoarding, or of the comparatively little use of Savings' Banks, appeared to be chiefly in want of confidence and want of convenience. In part, the want of confidence arose from dense ignorance and unreasonable suspicion and jealousy. Old and poor people have heard of banks breaking, and unhappily they have had proofs that such banks have broken, and they have little means of satisfying themselves as to those which are trustworthy. The Wage Class frequently see that "master" or master's friends are amongst the managers, and are disinclined to have their savings brought under their notice. Moreover, the poor man who appears to be in steady work is commonly subjected to solicitations for aid from his poor and shiftless relations and from family paupers, to whom his answer is that he really cannot help them, meaning that he feels that he neither ought nor will do so, but if he be seen to enter a Savings' Bank, he is disarmed of such an excuse, and is subjected to additional persecution. It is inconvenient also to have to attend the bank at fixed times, and it is annoying to attend with a number of others. It is found in common in the metropolis for depositors not to deposit in the bank in their own immediate neighbourhood, but in a bank at a distance. Persons living on the south side of the Thames make their deposits in banks on the north, and *vice versa*. In many districts the extreme distance also of any Savings' Bank formed an insuperable difficulty to the personal attendance of depositors of single shillings and payment of small savings which, if not immediately deposited, "burn holes in their pockets," and are not saved at all. In Devonshire this difficulty is in part obviated by an excellent organization by which the clergy act as collectors from such of their flock as they influence into habits of frugality. Under such circumstances, and having a view to the

special purpose of the prevention of depredation, we were prepared to point out the expediency of measures for the removal of inconveniences and of grounds of distrust, and for encouraging the making of deposits for the promotion of the habit of banking.

The proposed measure appears to me to be of excellent conception and happy promise for the attainment of these ends with the other general and immediate object—the formation of frugal habits. It offers the highest possible security; it accords with the use of the post-office for the transmission of small sums, amounting to many millions of money, by money orders. The Post Office Savings' Bank will be open daily for the greater convenience of the depositor, with the least occasion for particular observation; and it is to be expected that the officers will be required to conciliate confidence, and that the convenience of depositors of all classes, without any reservation or distinction, will be carefully consulted. I say without distinction, for conveniences are needed for temporary investments, or for the safe custody of sums of money belonging to the higher middle classes, too small for investments in banks belonging to their class, or which are now kept on the premises, waiting for a higher and more profitable order of investment. The measure at once gives a fourfold extension of places of deposit presenting these advantages. Alarm at the extent of money which may be brought in is alarm at the extent of accommodation for safety and frugality which, as the service will be paid for, I hope by good administration be justified. To the cry of centralization raised against the measure, it may be answered that the people ought not to be subjected to their local institutions—with arrangements which they do not like, nor to have their necessities made a source of profit for local private officers, with only limited and imperfect responsibility, if they prefer the service of the general and more responsible public agency of the postal department. The measure is in extension of freedom.

In illustration of the crime committed from the temptation of the exposure of property, which extended banking facilities, though perhaps of another and higher order, would prevent, I take occasion to mention one large class of robberies of common occurrence in the metropolis. A tradesman takes his wife on an excursion on the Saturday or Sunday to Gravesend or elsewhere, and leaves the house in charge of a single servant, a girl, or of other servants, who take holiday too and leave her alone. A young fellow, a thief in the guise of a suitor, gains admission to the house, and robs it on ascertaining from her where her master keeps his money, and tempts her to become an accomplice; and those who leave property thus exposed afford temptation to the ruin of female servants and to depredation also. A recent case of the attempted theft of a large sum of money, more than one hundred sovereigns, left by a butcher in his shop,

under the care of a girl, is (except as to the attempted murder of the girl) an example of frequent occurrence, as the police well know. The thefts, by servants, of money left on the premises is one of the largest and most constant kinds of depredation with which the police have to deal. Last year the amount of loss in the metropolis (chiefly of money left habitually on the premises) exposed to temptation (but which, under considerate arrangements and habits, as in Scotland, from the convenience and the thrift of the interest on the deposits, however small, would be in some bank) was, as reported by the police, 13,015*l.*, besides 3,643*l.* stolen by lodgers and other inmates. Nor are these extraordinary annual amounts the whole, for the whole is not reported to the metropolitan police. The police returns show an average of some 500 servants yearly prosecuted for larceny. It may be mentioned that the early Saturday closing of the established banks has, by preventing the deposit of much of the money received only on the Saturday afternoon, extended the exposure and danger to depredation of the property of professional persons and higher classes of manufacturers and tradesmen in the habit of banking. To obviate it and diminish the Saturday and Monday robberies, the banks might surely make arrangements for the receipt by their house-porters of closed cash-boxes after the banking hours, and for their safe custody until the time of opening on the Monday following. In these boxes might be enclosed, placed out of temptation for the time, silver spoons or valuable articles of jewellery.

Great good might be accomplished by provision for the regular issue of authoritative expositions of the causes of crimes and the means of preventing them, and of admonitions to the duty of adopting them, and of "leading not into temptation." In fine, in respect to this measure of the Post Office Savings' Bank, considering the example of the utilization of numerous postal establishments for the public service, and especially for the service of the most numerous classes, it may be stated, as was observed in the House of Commons by the late Sir Robert Peel, on the Encumbered Estates Act, that it was "so thoroughly good a measure that he wondered how ever it "passed."

I think, too, that social reformers, economists, and the public at large may be congratulated that this measure has the peculiarly good fortune, as I deem it, of being proposed and passed at a time when it may have the care of such permanent public officers as Sir Rowland Hill (and, I may add, of his able assistant, Mr. Frederic Hill), to whom we owe the initiation and progressive development of one of the greatest administrative, economical, social, and educational improvements of our time.

MR. OLMSTED'S *Account of the PRESENT CONDITION of the SLAVE REGIONS of the UNITED STATES.*\*

[So much interest is at present felt in American topics that we avail ourselves with pleasure of the following able review in the (London) "Spectator" newspaper, of 12th October, 1861, of the volumes recently published by Mr. Olmsted, the well-known New England traveller, on the condition of the Slave States of the Union.]

"This book is a compendious recast of Mr. Olmsted's invaluable volumes on the Slave State—volumes full of acute, pithy, and significant delineations which bear in every line the stamp of an honest and unexaggerating, but close and clear-sighted study of those States. To those who have read Mr. Olmsted's volumes as they appeared, there will be little that is new in this recast; but works so faithful and discerning deserve a form as convenient as their substance is weighty; and to have the three former volumes well condensed, and connected with a single and copious index, is a boon for which no genuine student of the Southern institutions will be unthankful. All we can propose to ourselves is to draw attention to the most important results fully established by Mr. Olmsted, giving, wherever it is possible, brief individual illustrations from his book, in order to bring the significance of his inferences more broadly before our readers.

"First, then, in the Southern States, the value of capital and labour is determined almost exclusively by reference to a standard which is only appropriate in a very small portion of the territory, and even there only to a very small fraction of the land, capital, and labour of that portion—we mean the value of those cotton lands which are cultivated at the best profit. It is a familiar truth with economists that in all professions where very high prices are to be obtained, the general rate of profit is far below the average of other professions. This principle governs the cost of labour in the Slave States. The value of all slaves is measured with relation to the value of a good field hand on a cotton plantation of far more than the average (though less than the maximum) rate of profit. This is so, even in the Border Slave States, where no cotton is grown. For even there the possibility of realizing the value of a slave-estate by selling all the strong hands 'down South,' is one with reference to which the proprietors uniformly estimate their available wealth. The form in which the richer Cotton States receive their accumulating wealth is—new importations of slaves. The breeding states, on the other hand, while they estimate their wealth by the value which they *might* realize if they sold all their slaves to the richer cotton-planters, practically do apply much of this costly slave labour to occupations like tobacco-planting, ordinary farm labour, and household service, which bring back no proportionate returns. In

\* "Journeys and Explorations in the Cotton Kingdom; a Traveller's Observations on Cotton and Slavery in the American Slave States." Based upon three former volumes of Journeys and Investigations by the same Author. By Frederick Law Olmsted. Two vols. Sampson Low.



fact, therefore, so far as they keep the slaves at work on their own estates instead of selling them to the cotton-planters, they are losing the interest on their money-value. A slave who, if sold to the South, would command 1,200 dollars, and so gain the owner, if invested in Northern commerce, 120 dollars annually, is retained at work which perhaps does not yield 4 or 3 per cent. on that value, or from 36 to 48 dollars annually; so that the Northern Slave States, so far as they are cultivated at all, practically fritter away their resources on the effort to retain for unremunerative home-work a kind of labour which they estimate by its value in a foreign market. Now, when we consider that of the 500,000,000 acres of the Slave States, not more than 1 per cent., or 5,000,000 acres, are devoted to this remunerative cotton culture at all, and that of this 1 per cent. certainly not a quarter is cultivated with that energy and capital, and with that yield of profit which practically determines the cost of slaves, we may estimate with some degree of accuracy how gigantic a mischief the whole system is. The Slave States are, in fact, a gigantic lottery, in which only the very few draw prizes, yet in which, buoyed up by speculative hope, all pay much more than the proper cost of their individual chance of a prize. The Cotton Culture can only be profitably pursued with large gangs of labourers, experienced overseers, and on rich lands. Rich lands, indeed, are plenty, but capitalists rich enough to purchase large gangs of labourers, and skilful enough to provide proper superintendence, are few. Yet all pay for their slaves at a rate which is so high as to be only really profitable to these few; and in the Border States this costly labour, so far as it is employed at all, is employed on work on which it is in fact thrown away.

"The result is, that only those planters are really rich in Virginia and the Border States who have a good deal of property either in rich cotton estates 'down South,' or in Northern securities, and who are content to spend their incomes so acquired on their Virginian estates, just as an English gentleman farmer spends instead of gains on his hobby of farming.

"This exceptional condition, then, it is obvious on the face of things, is maintained at an enormous expense, not only of money, but of nerve, time, temper, if not of humanity, or the world's judgment of humanity. There is much inherited wealth, a cotton plantation or two in Mississippi, and a few slips of paper in a broker's office in Wall-street, that account for the comfort of this Virginia farmer, as, with something of the pride which apes humility, he likes to style himself. And after all he has no road on which he can drive his fine horses; his physician supposes the use of chloric ether, as an anasthetic agent, to be a novel and interesting subject of after-dinner eloquence; he has no church within twenty miles, but one of logs, attendance on which is sure to bring on attack of neuralgia with his wife, and where only an ignorant ranter of a different faith from his own preaches at irregular intervals; there is no school which he is willing that his children should attend; his daily papers come weekly, and he sees no book except such as he has especially ordered from Norton or Stevens. This being the exception, how is it with the community as a whole? As a whole, the community make shift to live, some part tolerably, the most part wretchedly enough, with arrangements such as one might expect to find in a country in stress of war. Nothing which can be postponed or overlooked, without immediate serious inconvenience, gets attended to. One soon neglects to inquire why this is not done or

that; the answer is so certain to be that there is no proper person to be got to do it without more trouble (or expense) than it is thought to be worth.'

"The social condition in which Mr. Olmsted found almost all the planters of the south-west, and most of those of Virginia and the Carolinas, is given with great and telling detail. Sometimes it was the result of real poverty, sometimes only of the vulgar meanness of the class of planters who have risen out of the condition of agents or managers. But both in the Border States and in the Cotton States, Mr. Olmsted's traditional impressions of the refinement and hospitality of the patriarchal state received rude and repeated shocks. In almost every house where he is received at all, his reception is the same; he is accepted sullenly, as a necessary evil; he finds no trace of literature, music, or art in the house; he is fed well, lodged uncomfortably, and, in the south-west, generally in beds full of vermin; he is lighted to bed by the planter himself, who acts as candlestick to the dip-candle which he carries, without any holder, in his hand; finds his horse very indifferently attended to, and is charged five shillings when he leaves the next morning. Here is his evidence as to the Cotton States:

"Nine times out of ten, at least, I slept in a room with others, in a bed which stank, supplied but with one sheet, if with any; I washed with utensils common to the whole household; I found no garden, no flowers, no fruit, no tea, no cream, no sugar, no bread (for corn pone—let me insert in parenthesis, though possibly, as tastes differ, a very good thing of its kind for ostriches—is not bread; neither does even flour, salt, fat, and water, stirred together and warmed, constitute bread); no curtains, no lifting windows, (three times out of four absolutely no windows), no couch—if one reclined in the family room it was on the bare floor—for there were no carpets or mats. For all that the house swarmed with vermin. There was no hay, no straw, no oats (but mouldy corn and leaves of maize), no discretion, no care, no honesty at the —; there was no stable, but a log-pen, and besides this, there was no other out-house but a smoke-house, a corn-house, and a range of nigger houses.

"From the banks of the Mississippi to the banks of James, I did not (that I remember) see, except perhaps in one or two towns, a thermometer, nor a book of Shakespeare, nor a pianoforte or a sheet of music; nor the light of a carcel or other good centre-table or reading lamp, nor an engraving or copy of any kind of a work of art of the slightest merit.'

"In addition to this he is generally struck by the moral degradation which free intercourse with the slave-cabins ensures for the growing boys or girls of the planter, so much so that he finds all respectable parents are obliged to send them at an early age to the North to be educated to avoid the brutalizing and impure influences to which they are otherwise exposed.

"The reasons why *Slave Labour* is so costly as to be remunerative only under the special cotton monopoly, are also illustrated in minute and graphic details. In the first place, slave-labour is not only very ignorant and shiftless, but the least danger of its becoming otherwise is met with eagerly repressive measures. Mr. Olmsted quotes several observations on the part of slave-owners to the effect that it did not do for the slaves to be equal to '*taking care of themselves*,' and in one place he adds: 'I begin to suspect that the great trouble and anxiety of Southern gentlemen is, how, without quite destroying the



capabilities of the negro for any work at all, to prevent him from learning to take care of himself.' Another source of failure in slave-labour is the strong *motive* for idleness, and therefore for exaggerating or feigning illness. An amusing illustration of this is given:

" 'Frequently the invalid slaves neglect or refuse to use the remedies prescribed for their recovery. They conceal pills, for instance, under their tongue, and declare that they have swallowed them, when, from their producing no effect, it will be afterwards evident that they have not. This general custom I heard ascribed to habit, acquired when they were not very ill, and were loath to be made quite well enough to have to go to work again. Amusing incidents, illustrating this difficulty, I have heard narrated, showing that the slave rather enjoys getting a severe wound that lays him up:—he has his hand crushed by the fall of a piece of timber, and after the pain is alleviated, is heard to exclaim, 'Bless der Lord—der haan b'long to masser—dout reckon dis chile got no more corn to hoe dis yaar, nohow.'

" But the worst cases of indolence and demoralization of this sort are those in which the slave belongs to one man and is hired by another. Here the power over him being divided, and his owner not suffering the loss of any indisposition or idleness on the part of the slave, the cases of such feigned illness are innumerable.

" It seems at first sight strange that slave labour being so costly and inefficient, there should not, in the Border States at least, be a strong disposition to employ free labour as largely as possible in order to supersede it. But one of the great vices of the system is that while it makes the poorer whites unwilling to do anything for which a slave is usually employed, it also makes the master most reluctant to employ such aid. The masters answered Mr. Olmsted's inquiries on this head first by stating the reluctance of the whites to undertake such work, and then, when pressed further with the inquiry, 'Why not send North and get some of our labourers?' by the direct admission, 'Well, the truth is, I have been used to driving niggers, and I don't think I could drive white men. I should not know how to manage them.' The plea is, no doubt, perfectly sound. The habit of employing slave-labour incapacitates the master for the kind of superintendence which alone would tell upon freemen—the authority without arbitrariness, the firmness without menace, the cheerful kindness without familiarity, which they have unlearned in 'driving' slaves.

" We have dwelt chiefly on the fruits of the system to the *white* population of the Slave States, and shown that it pauperizes, as well as vulgarizes and brutalizes them. We might easily extend this demonstration to a length far beyond the limits of any newspaper article, but, in conclusion, let us extract Mr. Olmsted's deliberate and reluctant conclusion as to the influence exerted on the slaves themselves by their contact with the white race. He had, he says, always believed and argued that it was to some considerable extent a discipline of value:

" 'The benefit of the African which is supposed to be incidental to American slavery, is confessedly proportionate to the degree in which he is forced into intercourse with a superior race and made subject to its example. Before I visited the South, I had believed that the advantages accruing from slavery, in this way,

far out-weighed the occasional cruelties, and other evils incidental to the system. I found, however, the mental and moral condition of the negroes, even in Virginia, and in those towns and districts containing the largest proportion of whites, much lower than I had anticipated; and as soon as I had an opportunity to examine one of the extensive plantations of the interior, although one inherited by its owner, and the home of a large and virtuous white family, I was satisfied that the advantages arising to the blacks from association with their white masters were very inconsiderable, scarcely appreciable, for the great majority of the field hands. Even the overseer had barely acquaintance enough with the slaves, individually, to call them by name; the owner could not determine if he were addressing one of his own chattels, or whether it was another man's property, he said, when by chance he came upon a negro off the work. Much less did the slaves have an opportunity to cultivate their minds by intercourse with other white people. Whatever of civilization, and of the forms, customs, and shibboleths of Christianity, they were acquiring by example, and through police restraints, might, it occurred to me, after all, but poorly compensate the effect to the systematic withdrawal from them of all the influences which tend to nourish the moral nature and develop the intellectual faculties, in savages as well as in civilized free men. This doubt, as my Northern friends well know, for I had habitually assumed the opposite, in all previous discussions of the slavery question, was unexpected and painful to me.'

" Nor is this a mere opinion. The detailed evidence of the book supports it in full, as indeed it does almost every opinion which Mr. Olmsted advances on this painful subject. We know of no book in which significant but complex social facts are so fairly, minutely, and intelligently photographed—in which there is so great intrinsic evidence of impartiality—in which all the evidences given is at once so minute and so essential, and the inferences deduced so practical, broad, and impressive."

BRITISH WEST INDIA COLONIES in 1859. *Abstract of the Official Reports by the Governors.*

[WE are indebted to the "Standard" newspaper of 10th October, 1861, for the following useful abstract of the Colonial Blue Book for 1859. The "Standard" is rapidly earning a favourable distinction in the daily press, for the intelligence and care with which it places before its readers the substance of important public documents. —ED. S. J.]

"JAMAICA.—In 1859 (which is the last year of the official returns throughout the whole report), the total revenue of this island was 279,935*l.*, and the expenditure 262,142*l.* If we take the three preceding years we observe some fluctuations, which are trifling, and accounted for by purely local circumstances—as buildings and roads, and repayments of floating loans; but these we omit to specify, considering it more acceptable to our readers to devote our space to information rather of an Imperial than of a strictly local character. There is an island debt of 852,000*l.*, but it is in process of annual liquidation. There is no return of the population, but a census is ordered to be taken in 1861; but it is inferred from an ecclesiastical enumeration that the number of souls may be about 360,000. Taking an average of the years 1857, 1858, and 1859, the value of the four great staples—sugar, rum, coffee, and pimento, with logwood and dyewoods—was 1,056,890*l.*; and of the minor articles, 46,609*l.* It is the strongly expressed opinion of Governor Darling, that, on an average of seasons, the *export of sugar* will rarely exceed 30,000 tons, unless immigrant contract labour be more largely employed; and this leads to the subject of negro industry. The Governor sees no prospect 'of an augmentation of the effective strength of that portion of the native population who work *for hire* on the larger plantations,' because he doubts whether sufficient wages can be given for sugar cultivation to stimulate the negro, who is fonder of his ease than of money. His wants are few, and he is indifferent to hoarding. The available statistics of agriculture are however scanty, and quite insufficient to convey a correct and comprehensive view of industrial occupations. But one remarkable fact appears well worthy of attention. If the African race cannot be roused to activity by high wages, they work diligently when they cultivate the *soil on their own account*; and these are now rising up as an independent, respectable, and trustworthy middle class. They are even becoming the employers of hired labour. The gratifying result is that the emancipated race evince a capacity for freedom when they can appropriate to themselves a fair share of the wealth they create. They properly value the possession of a leasehold or freehold property, and in due time we may hope to see labourers, animated by the example of their brethren who have achieved independence, more and more inclined to work for wages as the sole means, if accompanied by economy, of

acquiring that capital which will place them in the position of becoming the owners of moderate holdings. Many years have elapsed since Mr. Carey, the American economist, expressed his conviction that what is now witnessed in Jamaica would prove the true solution of slavery in the Southern states. He predicts that a time will come when 'there will be seen to arise a class of free black men, cultivating for their own use their own land, bought from their old masters, who will find in the price of the land a compensation for the price of the labour.'\*

"BRITISH HONDURAS.—Here the chief trade is *mahogany*, which has been entirely engrossed by four or five influential firms. Two of these failed in 1859, and the result was great distress at Belize. The resident importing merchants who used to sell goods to purchasers from the contiguous states of Central America have lost their customers by a change in the course of trade, because the facilities of steam packet navigation have induced foreigners to draw their supplies direct from British manufacturers instead of procuring them, as heretofore, through Belize. However, the staple trade in mahogany and dyewoods is maintained with vigour; and there is the prospect of easier communication with Guatemala. The trade of Honduras is, however, small. In 1859 the value of the exports was 288,000*l.*, and of the imports 175,000*l.*

"BAHAMAS.—In 1859 the revenue was 30,727*l.* net. This is a ridiculously small sum; but the value of the imports was 213,166*l.*, and of the exports 141,896*l.* The staple produce of this colony consists of *pineapples and oranges*; but there is another source of trade which will astonish most of our readers—that is '*wrecks*,' which in the very words of the report are described as 'the great and constant element of our trade and revenue.' Neither agriculture nor manufactures offer any profit compared to that derived from the wrecker's vocation. But this subject is so curiously infamous that we shall transfer to our columns the language of the report:—'This calling, which distributes prizes among blacks and whites alike, puts on a level and gives to both the opportunities of easy self-indulgence. As I often had to remark, it involves crime and the connivance at crime. But I doubt whether the treacherous plots which are so successfully laid for the destruction of vessels are generally known to any but the commanders of the wrecking vessels and the masters of the wrecked ships. The crews, I imagine, have a general rather than a special knowledge of the schemes which bring the merchant vessel and the parasitic wrecker close together near a reef. The general demoralisation which the system engenders throughout every class in the colony will increase until American shipowners set the example of greater honesty, and American underwriters are more anxious to suppress the crimes which they condemn than to make their remonstrances against the English Government the vehicle of puffing their own resources and touting for fresh customers.' The negro in the Bahamas is not so favourably spoken of as the negro in Jamaica.

\* "The Past, the Present, and the Future," p. 364. By H. G. Carey.

The negro creole in the Bahamas is not devoid of ambition, but lacks persistent will and energy, both physical and mental. He is happier with his hominy and plot of ground than he would be if assured of a handsome independence on the condition of eight or ten years' hard work. He is a grumbler and a gossip. Such are the descendants of the ancient slaves; but the case is very different with those fresh from Africa and just rescued from Spanish slave ships. These are generally useful and energetic, and they perform the rougher work of the colony. The mulatto and his varied species are the best of this race; they have pride, ambition, and energy, and, when educated, are capable of the success to which they aspire. Such are the distinctions pointed out by Governor Bayley. There is little industry in the Bahamas group. The islands of Eleuthera and St. Salvador raise fruit for the English and American markets, but in the whole colony the culture of corn is trifling, and that of cotton is wholly neglected, while the Nassau market is supplied with meat from the southern districts of the United States. It is recommended that steam navigation be established between New Providence and the out islands.

"**TURK'S ISLANDS.**—These are an appendage to the government of Jamaica. The chief source of revenue is derived from the salinas, an export duty on salt being levied of one farthing per bushel of 35 imperial quarts. The population is only 3,250 souls, and with that fact we may dismiss this little group.

"**TRINIDAD.**—Taking an average of three years, the customs and tonnage duties figure for about 74,000*l.*, and the local revenues, which are the receipts of the ward unions, average 25,000*l.* Lord Harris divided the island into wards, for which he is highly praised. The expenditure on the fixed establishments of the island is put down at about 53,000*l.*; but the unfixed and contingent charges are very large in proportion, those for 1859 exceeding 120,000*l.* The value of the imports in 1859, was 730,000*l.*, and of the exports, 820,000*l.* As cotton now occupies the manufacturing mind, we may state that in the year 1859 Trinidad exported 295 bales. The financial balance sheet last forwarded shows the estimated revenue of the island at 176,000*l.*, and the expenditure at 180,000*l.*, but this excess is increased by some local items which we need not enumerate; it is sufficient to state that the Governor proposes to make good the deficiency by an income tax of 5*d.* in the pound on all incomes of 100*l.* and upwards, and he expects it will yield 8,000*l.* a year. Thus this bad fiscal principle, which all parties agree cannot be made practically equitable, is about to travel to the West Indies. The most interesting part of this report refers to *immigration*. It is known that most of the colonies must have perished, or returned to a state of weeds and jungle, had not labourers been procured from India and China after the Negro Emancipation Act had been passed. In 1858 the Indian population in Trinidad was 8,854; in 1859, it was 13,544, but this was not entirely due to fresh arrivals, but was partly attributable to the registration of many adults omitted in the former census, and principally to a more particular registration of

children. In 1859 there were in the island 3,868 immigrants whose term of industrial residence had expired, and are at liberty to work or not; but of these 1,360 renewed contracts with their employers, at a premium of from 2*l.* to 4*l.* per annum. This is a satisfactory proof that they have been well treated, and are content with their bargain. Of the 3,868 who have thus terminated their industrial residence, all are entitled to return passages, except 750 who arrived since January, 1854, who are consequently under a contract of residence for ten years, of which one-half must be passed under written agreement and one-half not. This leaves 3,118 entitled *at present* to return passages. Of these 210 registered themselves as wishful to proceed to India, but before the period of their departure arrived the great majority changed their minds and entered into fresh contracts, so that out of the total number only 35 resolved to quit, and most of these had acquired comparative affluence in trade. These are highly gratifying facts, and silence the libels of those who have compared the immigration system to slavery in disguise. The Bengalee coolies are preferred to those from Madras on account of their superior docility; and the latter are said to be intemperate, idle, and desponding. In Trinidad there are orphan homes and training schools for Indian immigrants, and there is a well-balanced proportion between the children of both sexes, which augurs favourably for their social future.

"**BRITISH GUIANA.**—The revenue for the year 1829 was 275,618*l.*, and the expenditure 263,194*l.* The import duties are said to show an improvement of 24,000*l.*, but the total amount is not stated. The debt of the colony was 449,802*l.*, of which 320,000*l.* was due to Her Majesty's Government. The military defences of the port, abandoned for want of means in 1854, have been resumed. The batteries are nearly complete, and are deemed effective against privateers. This is all of general interest that can be gathered from the report of Governor Wodehouse, which is very scanty; nor is there a single appendix.

"**BARBADOS.**—The revenue for the year 1859 was 87,000*l.*; the expenditure 80,000*l.*; but on the four years ending with 1859 there was a surplus to the treasury of 32,000*l.* During the last four years the debt of the colony has been extinguished, for though there remains an outstanding claim of 290*l.*, it cannot be called in. The imports for the year 1859 were 1,049,000; the exports 1,225,000*l.* Barbados supplies *foreign manure* to the neighbouring British colonies and partially to the French. This inter-colonial trade in guano averages in value about 45,000*l.* per annum. Governor Hincks, formerly Prime Minister of Canada, describes the condition of the island as prosperous.

"**GRENADA.**—The fixed revenue for the year 1859 was 13,500*l.*, raised to nearly 17,000*l.* by additions accruing from taxes levied under a local money bill. Of this total about 9,500*l.* are the proceeds of duties on imports. In consequence of the arrival of Indian labourers the duty on imported rice had risen from 297*l.* to 516*l.*,



and the abolition of tonnage duties is expected to give some stimulus to trade. The total value of imports was, in 1859, 124,000*l.*, and of exports 131,000*l.* On both sides of this account some fractional deductions are made for goods imported and subsequently exported. Within the last three years agriculture has made considerable progress, and it has been ascribed to the introduction of Indian labourers. By their industry seven large estates have been reclaimed in the last three years, these having been abandoned when the negro refused to work after his emancipation. They are now in a flourishing condition. The immigrants only number 879, but their presence and conduct are described as 'most telling on the Creole labourers.' So well contented are the labourers that they told Governor Hincks that they had no intention of returning home, but would settle in the island when their term of industrial residence had expired. This confirms the intelligence from Trinidad.

"TOBAGO.—Of this colony nothing is reported but what is strictly local. Everything is described as prosperous. In round numbers the population numbers 15,000.

"ST. VINCENT.—The information is very scanty. There is a great want of Indian immigrants. The island is highly fertile and well adapted to the sugar cane. It exports some hundred tons of pozzolani, which, mixed with two-thirds of lime, produce an excellent hydraulic mortar and cement for pavements. It is shipped at the rate of 8*s.* per ton. Here grow the bread-fruit trees most luxuriantly, as nutritious as the yam and potato. The cabbage trees are gigantic, and the palms are tall and stately. Some insect blight has killed the cocoa nuts. The bamboo cane is excellent.

"ST. LUCIA.—The population is put at 26,000, but this estimate is deemed below the actual amount. Some 1,200 Indian labourers have arrived, who do not appear to be enumerated, and many persons come to St. Lucia annually from other colonies, chiefly from Martinique. The coolies are reclaiming land thrown out of cultivation. Old Buildings are repaired, and former activity and enterprise are being renewed.

"ANTIGUA.—The revenue for the year 1859 was 40,000*l.*; the expenditure, 39,000*l.* There is a public debt due to Her Majesty's Treasury of 40,000*l.* The last census of the population, taken in 1856, gave 35,408 souls. Five-seventh of the population have ceased to reside on estates, but live in towns or villages. The average number of inmates to each dwelling in the towns and villages is nearly five and a-half; on the estates, scarcely three and a-half. Morality seems to have been almost exiled from Antigua. Out of 4,134 births registered in three years, 2,201 were illegitimate. This proof of vice, it is said, would be strengthened if the number of abortions and premature births could be ascertained. Here children are deemed an encumbrance to the mother; they are badly nursed, and badly fed, and are deprived of proper medical attendance. These are among the causes of declining population. Under slavery these

evils did not occur; the planter provided the slave with everything needful. The imports of 1859 were 203,000*l.*; the exports, 289,000*l.* In the same year the exports of sugar were 13,706 hogsheads; of molasses, 675,000 gallons; of rum, 112,120 gallons. Formerly, in 1834, Antigua produced nearly 21,000 hogsheads of sugar; of late years it has rarely made 16,000. The soil is rich; the seasons very uncertain. Much land is still uncultured. However, the condition and prospects of the colony are considered by Governor Eyre as unsatisfactory. What is chiefly wanted is a large influx of the industrious coolies.

"MONTERRAT, ST. KITTS, NEVIS, DOMINICA, THE VIRGIN ISLANDS.—These are all under the Governor of Antigua, and with it constitutes the group known as the Leeward Islands, as Barbados, Grenada, Tobago, St. Vincent, and St. Lucia constitute the group known as the Windward Islands. Of the first four in the list of Leeward Islands no information of any European interest is conveyed in the report, and not much of the last, or Virgin Islands. Of these the most valuable product is copper, obtained from the mines of Virgin Gorda. The general exports go to the Danish islands of St. Thomas and St. Croix, which are only valued at 11,000*l.*; to British North American and West Indian colonies, 460*l.*; to the United Kingdom, *nil*. The exports referred to are horned cattle, horses, firewood, charcoal, and building lime; and if we notice such trifles it is because we wish to give a complete statement of what is scarcely known. The copper mine at Gorda was worked in 1839, and closed in 1842 for want of capital. In 1842 the copper raised from these mines, and sold at Swansea, yielded nearly 18 per cent. of marketable metal, and realised a price of 16*l.* 1*s.* 6*d.* per ton. The works are resumed under favourable auspices, and the returns are said to be rich and abundant.

"MAURITIUS.—This island is the most productive of the sugar colonies of the British Crown. In 1859 the revenue amounted to 597,000*l.* in respect of receipts within the colony alone, and was augmented by 12,000*l.* received by agents in London for dividends and profits on investments. In the same year the expenditure was 553,000*l.* The remittances to India on account of coolie immigration were 53,000*l.* There are paper-currency notes in circulation which exceed 200,000*l.* in amount. These are covered by cash in the Commercial and Oriental Banks, and by Consols which stand in the name of the commissioners of the currency. The savings' bank flourishes, and its utility is more appreciated as its operations are known. About one-third of the depositors are Indian coolies, who there hoard up the earnings which they take home when their term of industrial residence has expired. In 1858 these depositors drew 10,151*l.*, on their departure for India—a gratifying fact in a double sense, as it shows their wages to be liberal, and that they are a thrifty race. There can be no doubt of the readiness of the Hindoos to work the soil of Mauritius when they can realise such large emoluments, and it is clear that if the natives were proportionately remunerated in their own country the charge of laziness so unjustly

preferred against them would disappear. Their employers will not invest capital unless they have the certainty of high profits: and why should it be expected that labourers will work for them unless they receive high wages? In 1859 the sugar crop exceeded 115,000 tons, chiefly sold in English, French, and Australian markets. The total value of goods imported was 2,025,890*l.*, and of specie 414,931*l.* Total value of goods exported, 2,544,000*l.*; and of specie, 14,906*l.* The declared value of sugar exported, the produce of the colony, was 2,346,427*l.* The tonnage of vessels entered inwards was 304,616, outwards 308,642.

The general population of the island is computed at .....	96,526
Immigrant Indian population .....	201,979
Alien population, chiefly Chinese .....	6,541
	305,046

The population in 1859 was one-third larger than in 1851, when the census was taken. At Seychelles and the other dependencies of Mauritius there are 8,001 souls. This great increase is due to arrival of the coolies, whose contract term of residence is five years; and, as already stated, the treatment they receive and the wages they earn, ensure a continuous supply of Indian labour."

FACTS and OBSERVATIONS on WAGES and PRICES in ENGLAND during the SIXTEENTH and SEVENTEENTH CENTURIES, and more particularly during the Thirty-Nine Years 1582-1620; the DATE principally employed being the FABRIC ROLLS of YORK MINSTER and the SHUTTLEWORTH Household Books. By the REV. JAMES E. T. ROGERS, M.A. (Oxford), Tooke Professor of Economic Science and Statistics in King's College, London.

[Read before Section (F), at Manchester, 3rd September, 1861.]

AMONG the suggestions made at the last meeting of the International Statistical Congress in London, in 1860, it was proposed that, against the next meeting of that body, data should be prepared for the purpose, as far as possible, of establishing a history of prices during certain epochs in the earlier period of modern European history. Some information is already before us in English literature in the laborious and conscientious works of Macpherson and Eden, but they who have had occasion to consult these works will have found the statements of prices they contain scanty, fragmentary, and plainly in many cases of very questionable value. In fact, the purpose of neither of these writers was, strictly speaking, a history of prices. Macpherson, in recasting and continuing the earlier work of Anderson, was chiefly concerned with the rise and progress of international trade, while the bulk of Sir Frederic Eden's work is occupied with an account of the state of the poor in his own times, and in information on the deplorable state in which they were placed at the close of the last century.

Hitherto the facts alleged on prices during the period between 1200-1700 have been in the main gathered from contemporaneous pamphlets or from monastic chronicles. Such documents would naturally mention only exceptional prices, denote extreme values in seasons of singular scarcity and singular plenty, and are, I conceive, useless in history except as illustrating the fluctuations which might have prevailed in times when communication was difficult—though not so difficult as is ordinarily supposed—and when Government, by certain well-known pernicious regulations was making an artificial plenty at one time and an artificial scarcity at another.

But there are abundant materials for the construction of a history of prices during the whole or the greater part of the five hundred years which I have indicated, and these of a most trustworthy description, since they designate prices actually paid for commodities. So abundant, indeed, are these materials during a long period of

English history, that I make no doubt values could be determined for hundreds of years with an accuracy almost as exact as that which is exhibited in the tabulated returns of the late Mr. Tooke and of Mr. Newmarch, and the social history involved in these variations of prices almost as minutely elaborated. And it is important to remember, that prices in the documents to which I refer are not nominal, but represent *bonâ fide* transactions.

These documents are the bursar's\* books of monasteries and colleges, previous to the dissolution in the first case, and continuously from their foundation to the beginning of the eighteenth century at the least, in the latter. It is to be understood that the records of expenditure in monastic establishments are vast and of the most varied kind. The inmates of these establishments were purchasers and consumers, not rarely producers, on the largest scale. Their heads and rulers ranked and accompanied with princes and nobles; their inferior members lived on the fare of peasants and day-labourers, and were, indeed, ordinarily of that condition by birth. A similar life in common was the characteristic of the colleges and of some capitular bodies, though on a very inferior scale, and these supply information of a more or less detailed kind on the same subject.

For instance, the purchases of wine for the use of Durham Monastery in one year (1532-3) amount to 20 hhds.; of wheat, 305 qrs. 3 bshls.; of malt, 169 qrs. 2 bshls.; of iron, 53 cwt. 3 qrs.; of cattle, 291; sheep, 959; lambs, 159; salt white herrings, 10½ barrels; of sugar, 53 lbs.; of raisins, 11 doz. and 3; of currants, 12 doz. and 3, &c. The price of all these articles is stated as it varies, and in some cases, as in that of cattle, the cost of each head, with exact minuteness. I quote these instances to show how large is the field for economical induction. And records of a similar character are preserved by hundreds in public record offices and the muniment rooms of capitular bodies.

Some few of these account books have been published. The Surtees Society established in the University of Dublin, and the Cheetham Society in this city, have edited some exceedingly valuable memorials of this kind, a few of which have supplied me with much

\* The bursar of the monastery was the chief officer of accounts. Each inferior officer to whom the public funds of the establishment were entrusted, rendered an exact account of his charge to the bursar, who entered either in detail or summarily, the balance of such officer's receipts and expenditure for the rolls of the year. A similar method existed in the great or pipe roll of the Exchequer. At present the bursar of colleges in Oxford, and probably in Cambridge, performs analogous functions. The office was held in rotation, or by appointment for short periods, and in ancient times was endowed with a moderate fee. The bursar's account, *in extenso*, of the year 1532-3, Durham Monastery, occupies 100 pages of one of the Surtees Society's publications.

of the materials of this paper.\* And here I cannot help acknowledging my gratitude; a feeling which I am sure will be shared by all who have made use, or who may make use, of these publications, to the disinterested labours of the learned gentlemen who have undertaken the task of editing these documents; and expressing my admiration at the accuracy and convenience of the text and the indices. I can only hope that they will continue their labours in the same direction, assuring them that the aid they afford to the student of history, in that portion of it at least which has been most neglected—the social and economical condition of our forefathers—is large and invaluable. And I feel convinced that these gentlemen who have given such attention as the editors of these works have given to documents bearing on prices during the period I have designated, will agree with me that the history of this country cannot be perfect, or even accurate, till these economical facts have had a full attention given them.

After the Reformation, the materials for a determination of prices become far less copious. Some information is still to be procured from the expenditure of capitular bodies and collegiate establishments, though these corporations had far less funds to expend, and much less inclination to expend them, on works, than before the downfall of the monastic bodies. Further, the expenditure is generally scanty as it is, on repairs of buildings already constructed, and therefore less distinctive and exact. The common life of the monastery ceases or is feebly represented in academical bodies, and with the cessation of this life there ceases also information in great degree of large purchases in gross for the purpose of common consumption.

Still a considerable amount of valuable material is to be found in the account books of the domestic expenditure in noble and wealthy families. Some of these have long been before the world. Fleetwood collected prices with a view to determine that the fellow of a college could conscientiously hold his fellowship, though he might possess the exact sum in private income, which, according to the statutes of his college determined the vacation of his emolument. Bloomfield collected facts in his laborious history of Norfolk. So we have the Northumberland household book, 1503-1513, edited by Bishop Percy; books containing an account of the expenditure of the Earls of Derby and of Lord Chief Justice Coke. To these must be added the most copious, continuous, and important of all these records—the Shuttleworth accounts—published by the Cheetham Society. I have hopes that the value which attaches to such a publication as that of the Shuttleworth accounts will induce the owners of such relics to put

\* Cheetham Society, vols. xxxv, xli, xliii, xlvi; Surtees Society, vol. xviii.



them into the hands of editors as learned and diligent as Messrs. Raine and Harland.

The period which I have selected for comparison and examination in the collection of prices is generally understood to be immediately consequent on that great and permanent change in the value of the silver, which had its cause in the influx of that metal from America. In my opinion, however, the decline in the value of silver was much more gradual than has been imagined; and I shall be disposed to assign the permanent rise in the price of commodities to several distinct periods, one of the latest of these having been at about the accession of Charles I, a few years after the point at which my period closes.

In order that we may estimate the extent of the change, I shall lay before the Section an account of prices in the four years 1530-3, premising that there is at this time no permanent change traceable between values at that date and those which prevailed at sixty or eighty years before. The effect of the American discoveries was not discerned for fifty years or more after the voyage of Columbus.

It is not easy to determine what should be taken as a measure of value in the period before me. The rule of deciding the relative prosperity or depression of particular years or quantities of time by the price of corn, and which was imported into the legislature by the Act of Elizabeth, which reserved a portion of rents, on lease granted by corporations, in the shape of corn, has had the sanction of Adam Smith; and inferences from the market value of corn have been drawn for the purpose of instituting a contrast between the condition of agricultural and mechanical labour at different periods of economical history. At present, and indeed for the last century, such an estimate is perhaps just; but in ancient times, not only was labour far less divided, but it is plain from contemporary records that almost all labourers were producers as well as purchasers of agricultural commodities. The shepherd often had his own small farm and grass-run; the carter often owned horses and carriages; and the carpenter and mason often dealt in the produce which they worked. Such an economical state *should* naturally have created a high price of labour as compared with those of the necessaries and conveniences of life, by making his occupation optional with the seller.

Again, calculations on the price of corn in relation to that of labour are disturbed by the uncertainty as to what constituted the habitual food of the people. If, as now, the labouring classes lived generally on wheaten bread, changes in the price of wheat would be a complete index to the condition of this part of the community when compared with the price of labour, provided also that labour were the sole means of subsistence. But the ostensible means of life

were not as I have indicated—the only source of income,—nor is one grain, or grain at all, the only object of expenditure. Rye, which has now, I believe, almost disappeared from the list of grains used as food in England, was cultivated largely for that purpose during the times to which I refer; and barley and oats were consumed by man to a far larger extent than at present. Still, though one cannot at present determine the ratio between the price of food and that of labour with the same positive accuracy as at present, one can draw tolerably exact inferences.

Among the valuable suggestions supplied by our President (Mr. Newmarch), in the scheme read before the International Congress in 1860,\* on the Methods of Investigation as regards Prices and Wages, certain cautions are insisted on, and with great justice, as necessarily to be before the eyes of those who investigate such a subject as that which is before us. I will advert to a few of these.

I. It is not always easy to distinguish the *time of year* at which purchases are made. In the case of corn, the natural time was that no doubt in which most was bought, *i. e.*, shortly after the harvest. But it is plain that the practice was for each family to store up the whole or the greater part of the amount necessary for the year's consumption; and in the case of those corporations to which I have already adverted, to buy at a generally uniform price. The monasteries, however, performed to some extent the function of dealers. They sold as well as bought, and this to a considerable extent. Hence, they must have prevented, in great degree, that abrupt transition from high to low prices which we have heard was the worst incident of those times in which the intermediate dealer was unknown, or if known, visited with severe penalties as a forestaller or regrator.

II. The supply and the prices of *meat* were regulated by the seasons. Calves and lambs generally disappear by midsummer, where entries are dated, and stock is purchased and killed in large quantities and at moderate rates by autumn for salted winter provisions. The live stock was reduced to the largest quantity that could be well maintained on the summer store of hay. The meat must, however, have been lean and coarse, for the price of suet is fully four times that of meat.

III. The *weights and measures* used in England appear to have been tolerably uniform, or at least the difference between local weights and those in general use to have been known. Of all traditions those, I imagine, on weights and measures are most lasting,

\* "On Methods of Observation as regards Statistics of Prices and Wages in the Principal Trades, being the Programme of Section IV of the International Statistical Congress, 1860," by Wm. Newmarch—reprinted in the *Statistical Journal*, vol. xxiii, December, 1860.

though there is an awkward ambiguity about the quantity implied in a bushel. They have not been eradicated in France, after the establishment of a scientific system for the last seventy years; and the advocates of a decimal method are well aware that the practical difficulties which beset this scheme are chiefly derived from the vitality of prejudices in favour of traditional quantities.

IV. During the period between 1580-1601, the *nominal price* of *1l.* corresponds to 1·0381, *1l. -s. 8d.* After that period the nominal and sterling price are identical. But in the accounts which I shall compare with this period the difference is more marked. In 1531, the nominal price of *1l.* corresponds to 1·3781, *1l. 7s. 6½d.* of our money, while a century before the same amount equals 1·9375, *1l. 18s. 9d.* The memorable debasement effected during the reign of Henry VIII and his two successors extended only over eight years, and does not affect these accounts.

V. Engagements for *agricultural*, and indeed *mechanical* labour, were generally made by the year.\* Sometimes the mechanic received a fixed stipend, with pay for work in addition. Occasionally for the rarer kinds of labour or skill a yearly contract was made for the supply of services not of a continuous but recurring kind, *e.g.*, the shoeing of horses, cleansing of armour. At the same time piece-work is common, particularly, as might be expected, for labour in harvest, for spinning, weaving, and rope-making. So in masonry the workman is paid by the rod. In smith's work by the stone of raw material served out to him.

VI. The labourer was frequently *boarded* as well as *lodged*. All the schemes of labour-prices fixed by Act of Parliament up to 5th Elizabeth (1562), and the tariffs issued by the justices in the several counties afterwards give double prices, designating in the one column the price without, in the other, that with food. It was customary, too, in larger establishments at least, to give livery, or a sum of money in lieu of livery. Household, and even other servants, received annual donations not included in the contract. Wherever in the later accounts it is not specified that the labourer boarded himself, I conclude that he is boarded at the expense of the employer.

VII. The *hours of labour* were, from March to September, from nine and a-half to eleven and a-half hours; and between September and March, from sunrise to sunset; two hours being deducted for meals. (5th Elizabeth.)—I have found no trace, indeed, of any

\* The author is prepared with other information as to prices by *day* which are extracted from the accounts of the Clerks of the Works in the reigns of Henry VIII and Elizabeth, and also with those of the Ordnance in the reign of the latter sovereign. Certain peculiar circumstances connected with these accounts make the introduction of them into the present paper impracticable. The author hopes to call attention to this fund of information hereafter.

limitation of the hours of labour in any private contract; but we may conclude, I imagine, with tolerable certainty, that the provisions contained in the statute of Elizabeth represent what was the ordinary custom, and though apparently penal on the labourer, would, in the event of any dispute between employer and labourer be applied to ordinarily by the latter.

VIII. *Direct contributions* to the State for purposes of taxation appear to have been small in the period between 1580-1620. All the income derived by the Queen from direct taxation amounted on an average to 66,000*l.* per annum. But the revenue from grants for monopolies and from feudal customs was heavy and oppressive in its incidence though not perhaps lucrative.

IX. *Tolls* were not heavy apparently, levied only on certain commodities sold in fairs or open market, always paid by the purchasers, and therefore probably included in the price.

Mr. Newmarch has suggested that it may be possible to give a rough estimate during the earlier period of economical history of the prices of the leading kinds of grain, and of the wages of common agricultural labour, but despairs of any positive conclusions other than of a scanty information and irregular inferences about eight other heads. These are—The price of land of different kinds. Rent of land and interest of money lent on ample mortgage. Rent of houses and cottages. Prices of houses, cattle, sheep, poultry. Butcher's meat and other provisions. Clothes and furniture. Artisan and skilled labour. Cost and time of conveyance. And he observes that "the diversity of circumstances affecting the money value, from time to time, of all the objects comprised under these last eight heads is so great, that it would be futile to attempt any classification of them." I have reason to believe that there is, as I have already suggested, far larger and more perfect evidence on some of these subjects than my learned friend imagines. To this subject I hope to recur hereafter.

Of the *price of land* I get no trustworthy information. Nor do I think it possible to procure it. As has been often observed, the integer of value is commonly a quantity from which a generally similar amount of produce is derived; not a definite superficial quantity. For similar reasons the rent of land cannot be exactly ascertained, unless perhaps, where the land is unimproved,—as natural water meadow. Nor, again, can one gather much as to the rent of houses and cottages; as there is none, or little information, about their comparative accommodation. Something, moreover, may be learnt as to the rent of industrial premises, though these were often rents of assize, or else rents for long terms, commenced by a fine. I have, however, found rents of flour-mills let from year to year, and in

which there is a rise in price from 2*l.* 3*s.* to 9*l.*; the rise during about one hundred and seventy years being gradual.

But of the *prices of horses, sheep, cattle, and poultry*, there is plentiful information. Scanty accounts of the *price of butcher's meat*, though suggestive notices as to its *quality*. Many facts as to the *price of clothing*, and accurate information on the market value of *skilled labour*. There are insulated facts, too, of considerable distinctiveness on the *cost of carriage\** over given distances, though these are to be extracted from a mass of notices in which one cannot arrive at a conclusion, because we do not learn what was the weight carried. The *rate of interest* is known with tolerable accuracy after the Reformation, when it was in some degree legalized, the maximum price allowed for money representing, I conceive, the full market rate for ample security.

The following are the heads to which I have referred the result of such researches as I have been able to make:—

- |                                                                                                    |                                                                       |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| I.—Corn, including wheat, rye, malt, barley, oats, peas, beans, and occasionally hemp and linseed. | XI.—Spices and groceries of foreign produce.                          |
| II.—Meat and suet.                                                                                 | XII.—Lead, iron, tin, glaziers' and plumbers' labour.                 |
| III.—Cattle and horses.                                                                            | XIII.—Agricultural labour, day and piece.                             |
| IV.—Sheep, lambs, wool.                                                                            | XIV.—Carpenters' and Masons' labour; wood, sawn or split; hewn stone. |
| V.—Pigs.                                                                                           | XV.—Household servants' wages.                                        |
| VI.—Poultry, game, eggs.                                                                           | XVI.—Smiths' and Weavers' labour; nails; ropes, sackcloth, &c.        |
| VII.—Butter, soap, candles, honey, oil, wax.                                                       | XVII.—Coals, lime, salt.                                              |
| VIII.—Fish.                                                                                        | XVIII.—Sundries.                                                      |
| IX.—Wine, vinegar, beer.                                                                           |                                                                       |
| X.—Clothing, flax, hemp.                                                                           |                                                                       |

The last heading is, I fear, inevitable, but it contains the prices of many articles constantly recurring, but not in such variety as to justify a separate head. On all, except the second of these heads, I hope to furnish some information in the period 1531-4, and on some in earlier times; while I think I may be able to direct the attention of the Section to the increase of price on each of these items of account during the years 1582-1620. To illustrate my position that prices had not varied for some centuries before 1530-33, I will give some facts of an earlier year, which is of no exceptional character.

The 1*l.* in the accounts represents 1*l.* 18*s.* 9*d.* of our money. The year is 1418.

\* Further researches enable me to state that the cost of land carriage was 4*d.* per ton per mile at the commencement of the date before us.

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I.—Wheat, 6 <i>s.</i> ; barley, 3 <i>s.</i> 4 <i>d.</i> ; oats, 1 <i>s.</i> 8 <i>d.</i> ; peas, 2 <i>s.</i>                                                                                                                                     | 1 <i>l.</i> 8 <i>s.</i> per 100; thatch boards, 3 <i>s.</i> 4 <i>d.</i> , 5 <i>s.</i> per 100; thatch tiles, 1,000, 9 <i>s.</i> ; wall tiles, 1,000, 5 <i>s.</i>                                                                                                                                                          |
| III.—Oxen, 15 <i>s.</i> , 12 <i>s.</i> 2½ <i>d.</i> ; horses, 10 <i>s.</i> , but the price of horses varies from 6 <i>l.</i> downwards, and did till a commercial treaty with Spain introduced a good herd into England.                        | XVI.—Nails, per 1,000, double spiking, 3 <i>s.</i> 5 <i>d.</i> ; middle do., 2 <i>s.</i> 7 <i>d.</i> ; shingle nails, 1 <i>s.</i> 4 <i>d.</i> ; rope maker, per stone, 3 <i>d.</i>                                                                                                                                        |
| VII.—Wax, lb., 6 <i>d.</i>                                                                                                                                                                                                                      | XVII.—Coal, chaldron, with carriage, 5 <i>s.</i> 8 <i>d.</i> ; hazlewood faggots, 1,000, 1 <i>l.</i> 6 <i>s.</i> ; salt, quarter, 5 <i>s.</i> 6 <i>d.</i>                                                                                                                                                                 |
| X.—Hemp, stone, 10 <i>d.</i>                                                                                                                                                                                                                    | XVIII.—Carriage of 877 stone of lead from Boroughbridge to York, 4 <i>s.</i> 10 <i>d.</i> ; land carriage 237 ton stone from Huddlestone to Cawood, 11 <i>l.</i> 10 <i>s.</i> 10 <i>d.</i> ; water do., Cawood to St. Leonard's Pier, York, 6 <i>l.</i> 15 <i>s.</i> ; land do., Pier to Church, 2 <i>l.</i> 14 <i>s.</i> |
| XII.—Lead, fother, 4 <i>l.</i> 13 <i>s.</i> 5 <i>d.</i> ; tin, cwt., 1 <i>l.</i> 8 <i>s.</i> ; iron, ton, 6 <i>l.</i> ; Plumbers' work, week, 2 <i>s.</i> ; Glaziers', 2 <i>s.</i> 6 <i>d.</i> ; glass, scam (white 1 <i>l.</i> ) i.e. 120 lbs. |                                                                                                                                                                                                                                                                                                                           |
| XIII.—Unskilled labour, the use of a man, waggon, and horse, per day, 1 <i>s.</i>                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                           |
| XIV.—Quarryman, year, 4 <i>l.</i> 13 <i>s.</i> 4 <i>d.</i> ; Carpenters' work, wainscots, 1 <i>l.</i> 6 <i>s.</i> 8 <i>d.</i> ,                                                                                                                 |                                                                                                                                                                                                                                                                                                                           |

The prices of corn and food are extracted from the annual accounts of Finchall Priory, those of artizan labour from the Fabric Rolls of York Minster.

Allow me to put before you prices from another year, 1482, which is a dear one, as the prices of the year 1418 are cheap.

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I.—Wheat, 10 <i>s.</i> 3 <i>d.</i> ; barley, 6 <i>s.</i> 9½ <i>d.</i> ; oats, 2 <i>s.</i> 6 <i>d.</i> ; peas, 8 <i>s.</i> ; beans, 8 <i>s.</i>                                                                                 | XIII.—Faggot making, ton, 3 <i>d.</i>                                                                                                                                                                                                                |
| IV.—Wool, stone, 2 <i>s.</i> 6 <i>d.</i> , 2 <i>s.</i>                                                                                                                                                                         | XIV.—Carpenter, week, 3 <i>s.</i> ; Carver, week, 3 <i>s.</i> ; quarrying, waggon load, 5 <i>d.</i> ; wainscots, 100, 2 <i>l.</i> 5 <i>s.</i> ; thatch boards, 100, 3 <i>s.</i> 9 <i>d.</i> ; laths, 1,000, 10 <i>s.</i> ; tiles, 1,000, 5 <i>s.</i> |
| VII.—Soap, barrel, 1 <i>l.</i> 6 <i>s.</i> 8 <i>d.</i> , 120 lbs.; oil, barrel, 5 <i>s.</i> 7 <i>d.</i>                                                                                                                        | XVI.—Hair cloth, ell, 4 <i>d.</i> ; sackcloth, ell, 2½ <i>d.</i>                                                                                                                                                                                     |
| XII.—Iron, ton, 4 <i>l.</i> 5 <i>s.</i> ; 5 <i>l.</i> 6 <i>s.</i> 8 <i>d.</i> ; lead, fother, 6 <i>l.</i> 10 <i>s.</i> ; Plumber, week, 3 <i>s.</i> ½ <i>d.</i> ; do., do., 2 <i>s.</i> 6 <i>d.</i> , 1 <i>s.</i> 10 <i>d.</i> | XVII.—Lime, ton, with carriage, 2 <i>s.</i>                                                                                                                                                                                                          |

I have mentioned these prices to compare them with 1530-3.

The currency is depreciated now from 1*l.* 11*s.* to 1*l.* 7*s.* 6¾*d.*, 11*l.* 3*s.* 1*d.* per cent.

In the second Appendix (B) I have collected and classified a large number of Prices for the years 1530-34, under the eighteen leading heads just enumerated.

We have in these prices (Table B), and they might be multiplied, an account of sums actually paid, on a large scale of transactions. They are chiefly from the Durham Household Book, and the Fabric Rolls of York Minster. It is, I may observe, of the highest importance to remember, that these are sums *actually paid*. Notices as hitherto given of prices in this period, are often exemplary of high and low prices at anomalous times, and in various localities, if indeed, as I suspect, they are not nearly imaginary. But these are



the transactions of large buyers, and often of large sellers: for the sales of commodities—chiefly prime necessaries of life—by these corporations are frequent and striking.

The inferences I gather from these accounts (B) are—

1st. That between the years 1300 to 1532, on making due allowance for the depreciation of the currency, there is no traceable mutation in the value of silver, *i.e.*, the symbol of exchange. Periods of extraordinary prices of labour can be accounted for on historical grounds. These, though very interesting, and viewed in relation to prices remarkably illustrative of some of the darkest and most important phases of the Economical History of England, are not, I feel, so far within the objects of the Association as to justify my propounding them for discussion.

2nd. That the English market was supplied with commodities of home and foreign produce, in quantities sufficiently large as to designate a regular demand, and an organized system of supply.

3rd. That although there may have been considerable fluctuations in the market price of the prime necessaries of life, the record of actual purchases does not warrant us in imagining that the variation was at all so excessive, as the notices of chroniclers have induced historians to believe.

4th. That in proportion to the price of the necessaries of life, Labour was more highly paid at the beginning of the fifteenth (say 1400-1420), than in the first third (1400-1533) of the sixteenth century.

5th. That the low price of certain foreign commodities, *e.g.*, wine, Spanish iron, is an argument that transit by water was comparatively cheap and virtually safe. This inference is here supported by, all things considered, the low rates charged on the carriage of goods by water over known distances.

6th. The comparative prices of certain articles in constant demand and regular supply, *e.g.*, lead and iron, may be taken to illustrate the comparative skill of the workmen employed to reduce these metals from their ores.

7th. The statutes of labourers were, as their framers constantly complained, nugatory, the record of prices paid exceeding greatly the sums allowed by Parliament to husbandry and handicraft.

8th. Of all kinds of provisions, the highest price was paid for fish. So far was it from being the case (as is commonly imagined), that our ancestors, of all degree, had a plentiful supply of these articles of food; the article of fish is a serious item in the accounts of a household, though our forefathers were no way particular in their choice for table. The price of fish was largely enhanced in Lent.

Thirty years after the date of the accounts from which I have

extracts, the statutes of labourers were consolidated by the act of 5 Elizabeth, 1562. The preamble of this Act acknowledges the change which had occurred in the value of the necessaries of life, and while it enacts provisions as stringent as the olden statutes of Edward III and Richard II did, it allows that price at which labour had been set before, was "a grief and burden to the poor hired man."\* The scale of prices to which I call the attention of the Section, will, I think, afford evidence of the hardship in question, though I confess to finding the cause of these hardships in other reasons than the provisions of an Act, which, it is confessed, was habitually broken. The information we have dates twenty years after the fifth Elizabeth and fifty from the date of the Durham accounts, when, as I have argued, the American discoveries had as yet produced no effect on the value of the currency.

The greater part of the information I possess on prices between 1582-1621, is derived from the accounts of the Shuttleworth family. Three persons successively held the estates of the family during this period. The first is a lawyer, and was judge of the county of Cheshire. The second is a clergyman, and held a living in Warwickshire. The third is a soldier. Some traits in the character of each, are discernible in the accounts. The lawyer lends and saves money; the clergyman spends money, for he builds what is now the family mansion; and the soldier borrows and spends. As was usual in those days, the country gentleman farmed and traded in farm produce. Unfortunately, the years 1607, part of 1608, 1610, 1615, are deficient in these accounts. During a year, 1608-9, the family is in London, and we have London prices. Next to these are Lloyd's Oxford prices; Eden's price list has supplied a few data; notices are gleaned from the York rolls—though these are scanty; Robert's southern counties, and Lord Wharton's household expenditure have been of service; so the household book of Lord Chief Justice Coke, as far as it exists in Eden's table.

The measure of corn used in the Shuttleworth accounts is called *mett*; this is ordinarily understood to be a bushel. I am informed, in the valuable index to this publication, that it is a word still in use,

\* If I could be sure that the sums declared as paid by the Crown, in several accounts of work done for the Crown, were *bonâ fide* records of what was paid to the workmen, and that no percentage was deducted *in transitu*, I should think that the Crown paid far more highly than other people and than public enactments determined. Furthermore, that the practice of purveyance was a Parliamentary fiction, and applicable only to cases in which people could make themselves heard, and that the popularity of the Tudors was due, in some degree, to their having paid good wages—*mutatis mutandis*—for labour. But there are grave difficulties in the way of these inferences. The most trustworthy accounts that I have seen are *primâ facie*, those marked in the Bodleian, by the title Rawlinson, A 195. But I can do no more than advert to these accounts at present.

but that its use is occasionally vague, or at least uncertain. But the ambiguity in the term is less important, as Mr. Lloyd's\* prices of corn extend over nearly the whole time which I am commenting on, and these prices are not only records of actual transactions in the Oxford market, but closely agree with the Eton prices, a locality sufficiently distant to be independent authority.

I have then continuous prices of wheat from 1582 to 1620 inclusive.

1. The highest price during the period, for the quarter of eight bushels, is that of Lady-day, 1597, when wheat reached 64s. in the Oxford market. Eden has a price of 100s. for the same year; and Mr. Roberts,† whose records are from the west, one of 120s.; on the other hand the lowest price is 11s. 10d. at Oxford, in 1588.

1594, 1596, 1598, 1608, 1614, 1617, were also dear years.

1583, 1584, 1591, 1593, 1602, were cheap years.

The lowest price in the seventeenth century, 1601-20, is in 1603, 23s. 1d.

2. Very little reliance can be placed on the quotations made, of prices of rye. The same may be said of barley.

3. The lowest price of malt, is in 1588, 9s. 5d.; the highest, in 1597, 37s. 8d. The lowest price during the years 1601-20, is in 1604, 11s. 11d.

4. The prices of oats, peas, and beans, are somewhat uncertain.

5. Hops range between 4d. and 11½d. The tables contain twenty-two prices. Hempseed varies between 16s. and 56s. Linseed between 26s. 8d., and 50s. 8d.

6. Meat and Cattle rise steadily.

7. Wool fluctuates considerably, from 4s. to 13s. 4d. a stone. The highest prices are in 1595 and 1597.

8. Comparatively speaking, there is little variation in the price of poultry. The difficulty of determining the time at which eggs are bought, makes an estimate uncertain, but the rise in these articles is considerable.

9. The higher-priced soap is scented or sweet.

10. A decided rise is observable in the price of butter.

11. Tallow and candles suffer no marked change in the period.

12. There is too little information about oil to enable one to draw any inference. The lower prices are of coarse kinds.

13. Honey more than doubles in price.

14. In fish, herrings present no remarkable variations except in the dear years. Salmon is very high-priced in comparison with other provisions. The high-priced salt fish, is ling; the low, codlings.

15. The price of wine is low, particularly that of French wine.

\* "Prices of Corn in Oxford," by Rev. W. F. Lloyd, 1830.

† Roberts's "Social History of the Southern Counties," p. 197.

All the prices designated are of small quantities. I have not thought it necessary to reduce hogsheads and tuns; the tun occurs but rarely in the accounts to which I have had access.

16. Vinegar is, I conclude, wine vinegar.

17. Except in connexion with the price of malt, that of ale and beer is not particularly suggestive.

18. Flax and hemp are, as far as the accounts guide us, comparatively dear, even at the lowest modern prices; at the highest they are excessively so.

19. Lead varies in the prices assigned to it, between 11l. 4s. -½d. and 7l. 17s. the fother of 19½ cwt.

20. Iron, as in earlier times, is of home produce, or procured from Spain and Italy; the lowest price is 8l. 13s. 4d., the highest 21l. 3s. 4d.; two quotations are given of steel, at 37l. and 27l. 15s. a ton.

21. The market value of the rarer groceries, which I have put under the general name of spices, the term by which they are known in the accounts, represents considerable fluctuations, but no sign of permanent increase; if at all, the cost is diminished.

22. In estimating the price of labour, it is not always easy to determine whether the payments made included the food of the labourer. There are, it is true, considerable differences in price at the same date, but separate bargains are obviously made with the separate labourers; payments by piece, however, invariably exclude the items of maintenance. I may observe that labour was procured from a distance; one entry in the Shuttleworth accounts specifies that the haymakers were "London people."

Ploughmen are paid from 5d. to 2d. a day, and from 1s. 2d. to 1s. 11d. the acre; reapers and mowers from 3d. to 10d. a day, and the latter 1s. 6d. to 1s. 8d. an acre; the former 2s. 8d. to 3s. 8d. an acre.

But there is no sign of any increase in the price of labour, skilled or unskilled, during this time. There is little evidence of a general remuneration correspondent to the enlarged cost of the necessaries of life before the Protectorate, when the dearness of provisions caused a re-settlement of the assize of wages, and with this re-settlement a permanent increase. The only apparent rise is in the heading, unskilled and female labour, in which an advance takes place at the end of the period.

The same facts apply equally to the labour of artizans.

There is a rise in the market value of hides and skins, of tar, used largely in dressing sheep, of salt, and some similar commodities.

The rent of land is represented by that of pasture or meadow; this is on the increase.

The ordinary rate of interest is 10 per cent.

I can now lay before the Section a table of *Comparative Prices* (Appendix A), 1530-1620, comprising 33 heads, on which it is possible to contrast with greater or less accuracy, the change in values which ensued on the American discoveries.

It must be observed that in setting the price of each article at 100, and computing the percentage of increased or decreased value, that there is an important caution which one must not lose sight of. The currency was depreciated between the years 1530-3 and 1582 onwards, by about 24 per cent. The rise in prices is, therefore, nominal, and is not really so great as appears, while the fall, when it does occur, is greater than it seems. But I have not thought it necessary to incorporate this element into the comparison; sufficient information, as to the relations between labour prices, foreign produce prices, and home prices, is contained in the comparison of nominal values; and these are sufficiently surprising. There is, the Section will observe, a prodigious rise in the price of the necessaries of life, and an extraordinary decline in the market value of labour, and especially of agricultural labour.\*

By far the most interesting question, however, a partial solution to which is procurable from these accounts, is the effect of the American discoveries.

I need not remind the Section that great alarm has been expressed at the possible derangement of existing permanent relations (such as that of the annuities paid on public credit) in consequence of the discovery of great gold fields, and in the possible disturbance of a ratio between the two forms of currency, which, either separately or conjointly, represent a legal tender in modern States. At present there is, I think I may say, no evidence that any derangement, or any marked disturbance of the ratio have arisen. Hereafter they may, but the abstract reasoning on which persons have derived their inferences, has, I imagine, been incomplete, and the reference to facts, the most prominent of which is the change of values in the sixteenth century, has been, from omissions in the calculation of causes, deficient in logical precision. Without pretending to enter into the economical circumstances which may affect the future relative value of the currency, I will venture on stating what deductions must, in my opinion, be made to any argument, from prices in the sixteenth century, before we can gather them with even an approximate exactness.

\* It must be observed that the prices of labour are almost entirely gathered from the Shuttleworth Accounts. But on the other hand the contrast is with the Durham Accounts; a locality near enough to suggest that no great difference of comparative values could naturally arise. Labour travelled as freely in those days as now; indeed, in the account books of Elizabeth we find that mechanics for Greenwich and the Tower are procured from places as distant as Cardiff, Dorchester, Brighton, Bristol, and Bridgwater.

The first of these was the destruction of the monasteries. As elements in the economical state of the nation, these corporations were great agricultural producers, and employed agricultural and mechanical labour very largely. Contemporary history is full of complaints of the practice of turning arable land into pasture, a practice which may indicate diminished capital, as well as a prudential change. With a population of labourers at least stationary or perhaps advancing—and the latter is the ordinary view, and a great diminution of capital, the opposite results of an increase in the price of food, and a decrease in the value of labour, would ensue.

2. The vast increase in the supply of the precious metals was peculiar and unprecedented. The conquerors of those American regions in which these metals are produced in such enormous comparative quantities, found them already smelted, refined, and available for exportation. When these resources were exhausted, there was a large population to fall back on, already familiar with mining operations, whom the Spaniards exterminated by compulsory and rigorous labour. The value of the precious metals must fall (as that of every commodity must fall), if no labour or little labour is given in exchange for them.

3. The theory which prevailed at this time on profitable trade, the terms of which remain to our own time, not only defined national prosperity to consist in a balance of exports over imports, and to provisions, in great degree nugatory, it must be allowed to prevent the efflux of specie, but consumption was actually narrowed by public acts, and by private rules. The violent attempts to raise prices, or to keep them at least stationary (which was the traditional policy of the Dutch trade), must have diminished the value of a currency, by limiting its possession to fewer hands. To refer to Adam Smith's comparison of the functions of money, it was like making a number of new roads and carefully precluding traffic from them. This interference with the expansion of trade, was, I make no doubt, the chief cause of the decline of the Dutch trading companies, and not as has been alleged, the burden of taxation. Even at present, when any idea that prices should be kept up by artificial means, is exploded, the phraseology of the markets is favourable or unfavourable to the seller, not to the consumer.

But whatever may have been the rise in the price of the conveniences and necessaries of life, there is no doubt about the gravely depressed condition of the labour market. Mr. Hallam has called attention to the contrast between the price of labour in the fifteenth and in the eighteenth century, but he has not adverted to the suddenness with which these low prices were stereotyped in the sixteenth. The princes of the house of Tudor were answerable for little good and much evil. They could not have, it is true, interfered with these



causes, which must have had their effect on prices sooner or later, and which were due to a vast augmentation in the amount of specie, but their debasement of the currency (short time though it lasted), and their permanent depreciation of it, in the face of a rapid rise in the price of commodities, were acts as profligate as mischievous, and, finally, as suicidal as could be conceived.

APPENDICES.

(A.) The first of the following three Appendices is intended to be a *Summary or Digest* of the evidence given in greater detail in (B) and (C). I have already explained the construction of (A) at page 548 *ante* —, and it will be sufficient to point out here, that by means of the cols. of "*Ratio or Decimal Value*," easy means are provided for measuring the variations of price from the *datum* line of the prices of 1530-33. In the columns of Table (A) the first quoted prices are averages from the Durham Bursar's computus for four years, 1530-33.

The other prices are averages of decades (the first is for nine years only), from 1582 to 1620, extracted from the above-named authorities. The Corn prices are reduced from Lloyd's Oxford prices only.

(B) gives for each of the five years 1530-34, a series of prices of some extent arranged under the seventeen heads or groups set forth at page 542 *ante*.

(C) contains an account of the prices paid for certain selected articles during the years 1582-1620, and of the rates at which *labour* was actually hired. The quotations are chiefly procured, as the title to the paper indicates, from the Shuttleworth accounts, and the Fabric Rolls of York Minster; that is to say, they are accounts of prices in the *North of England*. But the prices of Corn are procured from the record of sales actually made in the *Oxford Market*. These have been registered weekly since 1582, in pursuance of an Act of Parliament of that year, the Corn rents of the Colleges being fixed for each year from an average taken between the price at Lady-day and Michaelmas. These prices are marked (L) in the table, the former being the Spring, the latter the Autumn price. For a full discussion and analysis of the evidence relating to the Prices of Corn in England since the fifteenth century, I may refer to the second Appendix in the sixth vol. of Tooke and Newmarch's "*History of Prices*," especially to pp. 347-60. The other letters are explained at the head of the Appendix.

TABLE A.

PRICES in ENGLAND, 1530-1620.—SUMMARY STATEMENT, with Cols. indicating the Ratio of Variation as compared with Prices of 1530-33.

Years.	Wheat. (Average.)	Ratio or Decimal Value.	Malt.	Ratio or Decimal Value.	Oxen. (Average.)	Ratio or Decimal Value.	Cows. (Average.)	Ratio or Decimal Value.
1530-1533...	£ s. d. — 5 9½	100	£ s. d. — 8 2	100	£ s. d. — 15 7	100	£ s. d. — 10 1¼	100
1583-1590...	1 1 11½	378	— 13 7¼	165	3 4 5	386	1 13 2½	328
'91-1600...	1 10 11	568	— 19 6	239	3 11 2¼	456	—	—
1601-1610...	1 5 —½	428	— 17 11¼	220	3 18 4	502	—	—
'11- '20....	1 14 9½	595	1 — 3	248	5 17 4	752	—	—

  

Years.	Sheep. (Average.)	Ratio or Decimal Value.	Lambs.	Ratio or Decimal Value.	Wool.	Ratio or Decimal Value.	Capons.	Ratio or Decimal Value.
1530-1533...	s. d. 1 11½	100	s. d. 1 —	100	s. d. 3 —	100	£ s. d. — 8¼	100
1583-1590...	5 2	270	3 4¼	333	7 —	233	— 9	109
'91-1600...	5 —	260	3 5	341	13 3	451	— 6¼	84
1601-1610....	—	—	6 1	608	7 6	250	1 8	242
'11- '20....	5 11½	308	3 8	366	—	—	1 5	206

  

Years.	Chickens.	Ratio or Decimal Value.	Butter. (Stone.)	Ratio or Decimal Value.	Honey. (Gallon)	Ratio or Decimal Value.	Cod or Ling. (1,000.)	Ratio or Decimal Value.
1530-1533...	s. d. — —½	100	s. d. — 10½	100	s. d. 1 5½	100	£ s. d. 20 11 10½	100
1583-1590...	— 1¾	190	2 10	329	2 4	160	58 2 —	282
'91-1600....	— 2½	285	3 4	367	5 1½	349	118 — —	574
1601-1610...	— 4	457	4 2½	488	5 1	348	124 10 —	610
'11- '20....	— 2¾	299	3 10½	450	5 8½	381	83 — —	403

(A.)—PRICES in ENGLAND, 1530-1620.—SUMMARY STATEMENT, &c.—Contd.

Years.	Rabbits. (Couple.)	Ratio or Decimal Value.	Herrings. (Red.) (1,000.)	Ratio or Decimal Value.	Claret. (Hhd.)	Ratio or Decimal Value.	Raisins. (lb.)	Ratio or Decimal Value.
1530-1533....	d. 4½	100	£ s. d. - 11 10	100	£ s. d. 1 13 -	100	d. 2	100
1583-1590....	6½	146	1 2 7	190	5 8 7	329	3½	183
'91-1600....	9	211	1 8 -	236	7 2 7	332	4½	212
1601-1610....	10	235	1 4 -	202	8 8 -	509	6	300
'11- '20....	10	235	1 5 5	214	6 6 -	381	6	300

  

Years.	Pepper. (lb.)	Ratio or Decimal Value.	Cloves. (lb.)	Ratio or Decimal Value.	Sugar. (lb.)	Ratio or Decimal Value.	Lead. (Fother.)	Ratio or Decimal Value.
1530-1533....	s. d. 2 -	100	s. d. 8 -	100	s. d. - 7½	100	£ s. d. 2 18 6	100
1583-1590....	3 9	187	5 9	71	1 4	206	10 9 14	357
'91-1600....	3 7	179	-	-	1 4	206	-	-
1601-1610....	3 4	166	5 4	66	1 7	245	8 9 4	288
'11- '20....	-	-	7 5	82	1 5½	222	-	-

  

Years.	Iron. (Ton.)	Ratio or Decimal Value.	Solder. (lb.)	Ratio or Decimal Value.	Mowing. (Day.)	Ratio or Decimal Value.	Mowing. (Acre.)	Ratio or Decimal Value.
1530-1533....	£ s. d. 6 1 -	100	d. 3	100	d. 6	100	s. d. - 6	100
1583-1590....	13 15 7	227	4	133	3	50	1 6	300
'91-1600....	15 12 8	258	6	200	4	66	-	-
1601-1610....	16 2 2	266	6	200	3	50	-	-
'11- '20....	16 2 8	266	8	266	10	166	1 7	316

  

Years.	Threshing. (Day.)	Ratio or Decimal Value.	Ploughing. (Day.)	Ratio or Decimal Value.	Women's Agri- culture.	Ratio or Decimal Value.	Carpenters. (Day.)	Ratio or Decimal Value.
1530-1533....	d. 3½	100	d. 8	100	d. 1½	100	d. 5	100
1583-1590....	5½	148	4½	56	1	57	3	60
'91-1600....	-	-	2	25	2½	145	2½	55
1601-1610....	5	142	3	37	2	120	5	100
'11- '20....	5½	157	3	37	1½	95	4½	95

(A.)—PRICES in ENGLAND, 1530-1620.—SUMMARY STATEMENT, &c.—Contd.

Years.	Masons. (Day.)	Ratio or Decimal Value.	Mason's Labourer.	Ratio or Decimal Value.	Double Spiking. (1,000.)	Ratio or Decimal Value.	Salt. (Quarter.)	Ratio or Decimal Value.
1530-1533....	d. 5	100	d. 3	100	s. d. 3 5½	100	£ s. d. - 4 4	100
1583-1590....	4	80	-	-	8 4	241	1 4 -	554
'91-1600....	2½	45	1½	50	-	-	- 19 2	442
1601-1610....	5	100	2½	75	8 6	243	1 11 1	719
'11- '20....	4	80	2½	75	-	-	2 2 -	969

  

Years.	Tar. (Gallon.)	Ratio or Decimal Value.	-	-	-	-	-	-
1530-1533....	s. d. 1 7	100	-	-	-	-	-	-
1583-1590....	1 4	84	-	-	-	-	-	-
'91-1600....	1 2½	71	-	-	-	-	-	-
1601-1610....	1 4	84	-	-	-	-	-	-
'11- '20....	1 9	110	-	-	-	-	-	-

The above summary statement (A) establishes conclusively the fact of a *steady and large rise* in the price of nearly all *commodities* during the thirty-nine years included in the period (1583-1620), over which the Shuttleworth accounts extend. This rise cannot be assigned to any large increase in population, or of national resources. There is no reason to believe that the population increased. There is no evidence of any development of the material prosperity of the nation during the reigns of Elizabeth and James the First, but rather the contrary, if we take into account the scanty Continental influence of both these sovereigns, and there does not appear to have been any increased demand for luxuries. I have inspected some of the bursar's books of St. John's College, Oxford, during the period 1582-1620, and the only purchases of wine by the President and Fellows of what was then\* one of the best endowed colleges, were for Sacramental use. And so with other commodities; along with increased price there is evidence of diminished consumption.

Again, the reader will note the virtual, and frequently even the nominal decline in the *price of labour*. This becomes far more marked when the contrast is made with the earlier period, 1530-33.

\* The Founder of St. John's, Oxford, endowed it—as I have been told—chiefly with fee-farm rents.

TABLE (B.)—Prices in England, 1530-34,

ARTICLES.	1530.		1531.	
	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.
		£ s. d. £ s. d.		£ s. d. £ s. d.
I.				
Wheat .....	—	—	—	. 4 8 @ . 5 .
„ .....	—	. 6 . —	—	. 5 4 „ . 6 .
Barley .....	—	. 4 8 @ . 4 9	—	. 5 4 „ . 10 .
Malt* .....	—	. 4 8 „ . 5 4	{	. 11 4 „ . 10 .
„ .....	—	. 5 9 „ . 5 9 <sup>3</sup>	—	. 10 6 „ . 9 2 <sup>3</sup>
„ .....	—	. 6 8 „ . 7 .	{	. 9 . „ . 8 .
„ .....	—	—	—	. 7 6 † —
„ .....	—	—	{	. 8 8 „ . 8 9
„ .....	—	—	—	. 9 4 „ . 11 4
Peas .....	—	—	—	. 10 . —
Beans .....	—	—	—	. 10 8 —
III.				
Oxen .....	15	. 10 . @ . 19 .	20	. 7 6 @ 1 7 6
Cows .....	11	. 7 6 „ . 13 .	15	. 8 2 „ . 13 .
Stirks .....	—	. 3 . „ . 3 4	—	— —
Twinters .....	—	. 10 . —	—	. 10 . „ . 18 .
Whyes .....	—	. 6 4 —	—	— —
Horses .....	—	. 14 . —	—	. 17 . „ 1 . .
Calves .....	—	— —	—	— —
IV.				
Rams .....	8	. 1 9 @ . 2 6	4 {	. 1 9 <sup>1</sup> / <sub>2</sub> @ . 2 4
„ .....	—	— —	—	. 1 2 „ . 3 9
Muttons .....	—	. 1 10 „ . 2 2	5	. 1 6 „ . 2 2
Two years .....	—	. 1 11 —	—	— —
Ewes .....	—	— —	—	. 2 . „ . 2 4
Lambs .....	—	. 10 <sup>1</sup> / <sub>2</sub> „ . 1 5	5	. 10 „ . 1 5
Wool..... stone	—	— —	—	. 2 8 —
Pigs .....	12	. 1 10 @ . 5 .	10	. 1 8 <sup>1</sup> / <sub>2</sub> @ . 5 .
Boars .....	—	. 6 8 „ . 8 .	—	. 6 8 „ . 8 .
VI.				
Capons .....	3	. . 6 @ . — 8	4	. . 3 <sup>1</sup> / <sub>2</sub> @ . . 6
Chickens .....	—	— —	—	— . . 1

\* It will be observed that the year 1531 was a bad year for barley. The fact must be noted

Arranged under Seventeen Principal Heads.

ARTICLES.	1532.		1533.		1534.	
	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.
		£ s. d. £ s. d.		£ s. d. £ s. d.		£ s. d. £ s. d.
Wheat .....	—	. 6 8 @ . 6 6	—	. 5 4 —	—	— —
„ .....	—	. 6 4 „ —	—	— —	—	— —
Barley .....	—	. 5 3 „ . 4 8	—	— —	—	— —
Malt* .....	{	. 8 9 „ . 8 6	—	— —	—	— —
„ .....	—	. 7 . „ . 6 8	—	— —	—	— —
„ .....	{	. 8 . „ . 7 9	—	— —	—	— —
„ .....	{	. 7 6 „ . 8 4	—	— —	—	— —
Peas .....	—	. 8 . —	—	— —	—	— —
Beans .....	—	. 8 . —	—	— —	—	— —
Oxen .....	24	. 6 8 @ 1 1 .	18	. 9 6 @ 1 16 .	—	— —
Cows .....	16	. 7 8 „ . 12 .	17	. 7 9 „ . 12 .	—	— —
Stirks .....	—	— —	—	— —	—	— —
Twinters .....	6	. 9 . „ . 16 .	—	. 8 4 —	—	— —
Whyes .....	—	— —	—	— —	—	— —
Horses .....	—	1 3 9 „ 2 16 3	—	. 15 . —	—	— —
Calves .....	—	. 3 . —	—	— —	—	— —
Rams .....	{	. 1 9 @ . 2 4	—	. 2 . —	—	— —
„ .....	—	. 1 3 „ . 1 9	—	. 1 6 @ . 1 8	—	— —
Muttons .....	—	— —	—	— —	—	— —
Two years .....	—	— —	—	— —	—	— —
Ewes .....	—	— —	—	. 2 . —	—	— —
Lambs .....	4	. 10 „ . 1 3	3	. 10 „ . 1 1	—	— —
Wool..... stone	—	. 3 . —	—	. 3 . „ . 3 4	—	— —
Pigs .....	6	. 1 3 <sup>1</sup> / <sub>2</sub> @ . 5 .	8	. 1 10 @ . 5 .	—	— —
Boars .....	—	. 6 . „ . 11 .	—	. 6 8 „ . 8 6	—	— —
Capons .....	5	. . 6 @ . 1 .	5	. . 4 <sup>1</sup> / <sub>2</sub> @ . . 6	—	— —
Chickens .....	—	. . 1 <sup>1</sup> / <sub>2</sub> „ . 1	—	. . 1 „ —	—	— —

as bearing on the general average.

† Norwich.



TABLE (B.)—Prices in England, 1530-31,

Arranged under Seventeen Principal Heads—Contd.

ARTICLES.	1530.		1531.		1532.		1533.		1534.	
	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.
		£ s. d. £ s. d.		£ s. d. £ s. d.		£ s. d. £ s. d.		£ s. d. £ s. d.		£ s. d. £ s. d.
Pigeons .....per doz.	—	—	—	. . 4 —	—	. . 4 „ —	—	—	—	—
Rabbits .....per couple	—	. . 4 —	—	—	—	. . 2 —	3	. . 4 „ . . 6	—	—
VII.										
Butter.....stone	—	—	—	—	—	. . 10 —	—	. . 10 @ . . 11	—	—
Oil.....barrel	—	—	—	2 . . —	—	1 10 . @ 1 13 4	—	1 10 . —	—	—
Soap.....	—	—	—	1 . . @ 1 2 .	—	—	—	. 13 4 —	—	—
Honey .....barrel (18 gals.)	—	—	—	1 10 . —	—	1 7 . „ 1 10 .	—	1 7 . „ 1 6 8	—	—
„ „	—	. 1 2 @ . 1 4	—	. 1 6 „ . 1 7	—	—	—	—	—	—
„ „	—	. 1 8 —	—	—	—	—	—	—	—	—
Wax .....doz. lb.	—	. 6 . —	—	. 6 . —	—	. 6 . „ . 7 .	3	. 5 3 „ . 7 .	—	—
VIII.										
Salmon .....scam.	—	. 8 . —	3	. 6 . @ . 9 .	3	. 6 . @ . 11 .	4	. 6 . @ . 12 .	—	—
Cod or ling .....per 1,000	3	18 6 8 @ 20 16 8	3	16 13 4 „ 25 . .	—	20 . . —	4	13 6 8 „ 33 6 8	—	—
Codling „	—	—	—	2 3 6 —	3	1 17 6 —	3	1 13 4 „ 2 . .	—	—
Herrings, Red „	—	. 9 . —	—	. 9 . —	—	. 9 . —	3	. 9 . „ 1 . .	—	—
Cade „	—	. 6 4 „ . 6 8	3	. 5 . „ . 7 6	—	. 7 . „ . 8 .	—	. 6 8 „ . 7 .	—	—
Herrings, White .....barrel	—	. 9 8 —	—	. 10 6 —	—	. 11 4 „ . 18 .	—	. 11 . „ . 18 .	—	—
IX.										
Wine, red .....hhd.	—	1 10 . —	—	1 15 7 @ 2 . .	—	1 3 4 @ 1 13 4	—	—	—	—
„ white „	—	1 13 9 —	—	1 18 4 „ 2 . .	—	—	—	—	—	—
„ claret „	—	1 10 . @ 1 13 4	—	2 . . —	3	1 3 4 „ 1 13 4	—	1 3 4 —	—	—
X.										
Cloth.....doz. ells	—	—	5	1 3 2 @ 1 7 6	3	1 8 . @ 1 10 .	—	1 6 8 @ 1 12 .	—	—
„ 2nd quality „	—	—	4	1 4 . „ 1 2 .	—	1 3 4 „ 1 3 8	—	1 3 4 —	—	—
„ 3rd „	—	—	3	. 18 . „ 1 2 .	4	. 11 4 „ 1 . .	—	1 . . —	—	—
Linen, seven qualities, } per ell	—	—	—	. . 8 „ . . 9	—	—	—	—	—	—
ranging from „	—	—	—	. . 10 „ . . 7	—	—	—	—	—	—
	—	—	—	. . 7½ „ . . 6	—	—	—	—	—	—
	—	—	—	. . 6½ „ . . 5	—	—	—	—	—	—
	—	—	—	. . 5½ „ . . 4	—	—	—	—	—	—
	—	—	—	. . 4½ „ . . 3	—	—	—	—	—	—
	—	—	—	. . 3½ „ . . 2	—	—	—	—	—	—
	—	—	—	. . 2½ „ . . 2	—	—	—	—	—	—
XI.										
Spices, foreign, Ginger .....lb.	—	—	6	. 1 4 @ . 2 8	3	. 1 8 @ . 2 .	—	. 1 10 @ . 2 .	—	. 2 . @ . 2 8

TABLE (B.)—Prices in England, 1530-34,

ARTICLES.	1530.		1531.	
	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.
		£ s. d.    £ s. d.		£ s. d.    £ s. d.
Spices, foreign, Pepper ..... <i>lb.</i>	—	. 1 10	3	. 1 10 @ . 1 11
"    Mace..... <i>"</i>	—	. 9 .	3	. 10 . " . 12 .
"    Cloves ..... <i>"</i>	—	. 9 .	5	. 7 . " . 14 .
Fruits, foreign, Dates ..... <i>"</i>	—	. 10	3	. . 6 " . . 8
"    Prunes ..... <i>"</i>	—	—	—	. . 1½ " . . 1½
"    Currants ..... <i>"</i>	—	. 4	3	. . 3 " . . 4
"    Raisins ..... <i>"</i>	—	. 2	—	. . 2 —
"    Figs ..... <i>"</i>	—	. 2	—	. . 3 —
"    Almonds ..... <i>"</i>	—	. 2	—	. . 2 " . . 3
Colours, Saffron..... <i>"</i>	—	. 10 8	—	1 2 10½ —
"    Sanders ..... <i>"</i>	—	. 1 6	4	. 1 4 " . 2 .
"    Turnsole ..... <i>"</i>	—	—	—	. 1 4 —
Sundries, Liquorice ..... <i>lb.</i>	—	—	3	. . 3 " . . 4
"    Aniseed ..... <i>"</i>	—	—	—	. . 3½ " . . 3½
"    Rice ..... <i>"</i>	—	—	3	. . 2½ " . . 3½
"    Sugar ..... <i>"</i>	—	—	4	. . 7½ " . . 10
XII.				
Metals, Lead ..... <i>fother</i>	—	—	—	—
"    Iron, Spanish .... <i>per ton</i>	—	6 . .	—	—
"    "    Lucca..... <i>"</i>	—	—	—	—
"    "    Weardale .. <i>"</i>	—	—	—	6 . . @ 5 6 8
"    Solder (Tin) ..... <i>per lb.</i>	—	—	3	. . 2 " . . 3
"    Steel burden (faggot) ...	—	—	—	. 3 2 —
"    Brass..... <i>per stone</i>	—	—	—	—
"    Silver ..... <i>oz.</i>	—	. 4 6	—	. 3 8 —
"    "    gilt ..... <i>"</i>	—	—	—	. 4 8 —
Plumber..... <i>per day</i>	—	—	—	. . 5 —
Glazier's work ..... <i>" foot</i>	—	—	—	. . 2 —
XIII.				
Agricultural labourer—				
Mowing..... <i>per day</i>	—	—	—	. . 6 —
"    ..... <i>" acre</i>	—	. . 6	—	. . 6 —

Arranged under Seventeen Principal Heads—Contd.

Number of Quotations Investigated.	1532.		1533.		1534.	
	PRICES.	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.
	£ s. d.    £ s. d.		£ s. d.    £ s. d.		£ s. d.    £ s. d.	
—	. . 11	5	. 1 10 @ . 2 10	3	. 1 9 @ . 1 11	
—	. 9 .	—	. 10 .	—	. 7 . " . 9 .	
—	. 6 .	—	. 6 4 " . 7 .	—	. 6 . " . 7 6	
3	. . 4 @ . . 8	—	. . 5 " . . 6	—	. . 5 —	
—	. . 1½ " . . 2	—	. . 1½ —	—	—	
3	. . 2½ " . . 3½	—	. . 3 —	—	. . 3 —	
—	. . 1 " . . 2	2	. . 1½ " . . 2½	—	. . 1½ —	
—	. . 2 —	—	. . 2 —	—	. . 2½ —	
—	. . 3 —	3	. . 3 " . . 4	3	. . 3 —	
—	1 1 4 " . 12 .	—	. 16 9 —	—	1 . . —	
3	. 1 4 " . 2 .	3	. 1 4 " . 1 8	—	. 1 4 " . 1 8	
—	. 1 4 —	—	. 1 4 " . 1 8	—	. 1 4 —	
—	. . 2 " . . 2½	—	. . 3 —	—	. . 3 —	
—	. . 2½ " . . 3	3	. . 2 " . . 3	—	—	
—	. . 2 —	—	. . 2 " . . 2½	—	. . 2½ —	
—	. . 8 —	—	. . 7 " . . 8	—	. . 7 —	
—	—	—	{ 2 12 . @ 2 18 6	—	—	
—	6 . . @ 5 . .	—	{ 3 5 . —	—	—	
—	—	—	—	—	5 8 . —	
—	—	—	6 . . " . 6 13 4	—	—	
3	. . 2 " . . 5	3	. . 3 " . . 4	—	—	
—	—	—	. 3 . —	—	—	
—	1 9 —	—	. 1 9 —	—	—	
—	—	—	—	—	—	
—	. . 5 —	—	. . 5 —	—	—	
—	. . 2 —	—	. . 2 —	—	—	
—	. . 6 —	—	. . 6 —	—	—	
—	. . 6 —	—	. . 6 —	—	—	

TABLE (B.)—Prices in England, 1530-34,

ARTICLES.	1530.		1531.		
	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.	
		£ s. d. £ s. d.		£ s. d. £ s. d.	
Reaping, yane* .....	—	—	—	. 1 .	—
„ „ and binder day....	—	—	—	—	—
Threshing, Wheat and rye gr.	—	—	—	. . 4	—
„ Barley..... „	—	—	—	. . 3	—
„ Oats..... „	—	—	—	. . 2 @ . . 2½	—
„ Peas, beans..... „	—	—	—	. . 2 „ . . 2½	—
„ „ per day	—	—	—	—	—
Winnowing.....gr.	—	—	—	. . .½	—
Ploughing, day, without food....	—	—	—	. . 9	—
Women's work .....	—	—	—	—	—
Dung cart, day, without food .....	—	—	—	. . 9	—
„ with „ .....	—	—	—	—	—
Spreading dung .....	—	—	—	—	—
Thatcher .....	—	—	—	—	—
„ and man .....	—	—	—	—	—
XIV.					
Carpenter.....per day	—	—	3	. . 3 @ . . 6	—
„ (two—man { „ week and son) ..... { all year	—	—	—	. 3 4	—
Wainscots.....per hund.	—	—	—	4 3 4	—
Sawyers.....per rod	—	—	3	. 1 8 „ . 3 .	—
„ „ „ day	—	—	—	—	—
Laths, rending..... 1,000	—	—	—	. 3 .	—
Wheelwright, &c. ....	—	—	—	1 13 4	—
Mason.....per day	—	. . 6	3	. . 4 „ . 6	—
„ .....man	—	. . 2½	—	. . 3	—
„ .....rod	—	—	—	. 4 6	—
Painting..... „	—	—	—	. . 8	—
Plastering.....day	—	—	—	—	—
Hewing stone..... „	—	—	—	—	—
XV.					
Household servants.....year	—	—	13	5 . . @ . 6 8	—

\* Three reapers are a yane.

Arranged under Seventeen Principal Heads—Contd.

Number of Quotations Investigated.	1532.		1533.		1534.	
	PRICES.	PRICES.	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.
	£ s. d. £ s. d.	£ s. d. £ s. d.		£ s. d. £ s. d.		£ s. d. £ s. d.
—	—	—	—	—	—	—
—	—	—	—	. 1 4	—	—
—	. . 4	—	—	. . 4	—	—
—	. . 3	—	—	. . 3	—	—
—	. . 2	—	—	. . 2 @ . . 3	—	—
—	—	—	—	. . 2 „ . . 4	—	—
—	—	—	—	. . 3 „ . . 4	—	—
—	. . .½	—	—	. . .½	—	—
—	. . 8	—	—	. . 8	—	—
—	. . 1½	—	—	. . 2	—	—
—	—	—	—	—	—	—
—	. . 3	—	—	—	—	—
—	. . 1½	—	—	—	—	—
—	—	—	—	. . 3 „ . . 3½	—	—
—	. . 7 @ . . 6	—	—	. . 4	—	—
4	. . 3 @ . . 6	—	—	. . 6	—	—
—	. 3 4	—	—	. 3 4	—	—
—	5 . . „ 6 13 4	—	—	—	—	—
—	. 2 8 „ . 3 .	—	—	. 2 8	—	—
—	. . 6	—	—	—	—	—
—	. 3 .	—	—	. 6 . @ . 9 .	—	—
—	1 13 4	—	—	1 13 4	—	—
—	—	—	4	. . 3 „ . . 6	—	—
—	—	—	—	—	—	—
—	. 3 . „ . 4 6	—	—	. 4 6	—	—
—	. . 8	—	—	. . 8	—	—
—	—	—	5	. . 2 „ . . 5	—	—
4	. . 3 „ . . 6	—	—	. . 5	—	—
12	6 13 4 @ . 6 8	12	6 13 4 @ . 6 8	—	—	—



TABLE (B.)—Prices in England, 1530-31,

ARTICLES.	1530.		1531.	
	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.
		£ s. d. £ s. d.		£ s. d. £ s. d.
XVI.				
Smith, working iron stone.....	—	. . 2 —	—	. . 2 —
Nails, per 1,000, double spiking	—	. 3 . @ . 3 4	—	. 2 6 —
"    single    "    ....	—	—	—	. 1 6 —
"    brags    "    ....	—	—	—	. 10 . —
Hair cloth .....	ell	—	—	. . 3 —
Sackcloth (4 ells to a sack) ....	—	—	5	. . 2 @ . . 3
Sewing hair .....	lb.	—	—	—
Girth webb .....	doz.	—	—	. . 7½ —
Spinning flax (women) .....	lb.	—	—	—
XVII.				
Lime, per load, not carried .....	—	—	—	. 1 3 —
Collier .....	per day	—	—	. . 4½ —
Salt .....	qr.	—	—	. 4 . —
XVIII.				
Tar .....	barrel	—	—	. 5 . —
"    .....	gallon	—	—	—
Rosin .....	doz. lb.	—	—	. 1 6 —
Pitch .....	tone	—	—	—
"    .....	barrel	—	—	. 5 . —
Paper .....	per quire	—	—	—
"    .....	ream	—	—	. 3 . —
Parchment, large.....	doz.	—	—	. 3 . —
"    small .....	doz.	—	—	. 1 8 —
Millstones .....	pair	—	—	. 16 . —
Land carriage, 4 hhds. from } Newcastle to Durham.....	—	. 1 10 —	—	—
Land carriage, 5 barrels of } herrings from Chester.....	—	. 2 0 —	—	—
Land carriage, 2 hhds. from } Chester .....	—	—	—	—
Sea carriage, Berwick to Dur- } ham, 10 barrels herrings ....	—	. 3 4 —	—	—
Sea carriage, Shields to Dur- } ham, 18 barrels herrings ....	—	—	—	—
Sea carriage, Newcastle to Dur- } ham, tun of wine .....	—	—	—	—

Arranged under Seventeen Principal Heads—Contd.

Number of Quotations Investigated.	1532.		1533.		1534.	
	PRICES.	PRICES.	PRICES.	PRICES.	PRICES.	PRICES.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
—	. . 2 —	—	. . 2 —	—	—	—
—	—	—	. 5 0 —	—	—	—
—	. 1 6 —	—	—	—	—	—
—	1 . . —	—	—	—	—	—
—	—	—	. . 4 —	—	—	—
—	. . 3 —	—	. . 2½ —	—	—	—
—	. . 4 —	—	. . 4 —	—	—	—
—	. . 9 —	3	. . 8 @ . . 10	—	—	—
—	. . 1 —	—	—	—	—	—
—	. 1 3 —	3	. 1 3 @ . 2 .	—	—	—
—	. . 3 —	—	. . 3 —	—	—	—
—	. 7 9½ —	—	. 3 4 —	—	. 4 2½ —	—
—	. 5 8 @ . 5 10	—	. 8 . —	3	. 3 8 @ . 6 .	—
—	. 1 4 " . 1 10	—	—	—	—	—
—	. 1 6 —	—	. . 7 —	—	—	—
—	. 2 4 —	—	. . 6 —	—	—	—
—	—	—	—	—	—	—
—	. . 2 " . . 3	—	. . 2½ " . . 3	—	—	—
—	. 2 8 —	—	—	—	—	—
—	. 2 8 " . 3 .	—	—	—	—	—
—	—	—	. 2 . —	—	—	—
—	. 16 . " . 18 .	—	. 18 0 —	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	. 1 8 —	—	—	—
—	—	—	—	—	—	—
—	—	—	. 1 . —	—	—	—
—	—	—	. 2 4 —	—	—	—

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620, computed from the sources mentioned below.

TABLE C.—The commodities in the following columns are priced in *shillings and pence*. There are two exceptions, *i. e.* the prices of iron and lead, by the ton of 20 cwt. and the fother of 19½ cwt., which are denoted by *£ s. d.*

The italics annexed to prices are to be understood as follows:—

*l.* Lloyd's prices of wheat, malt, and occasionally of barley, oats, peas, and beans in the Oxford market. The first is on Lady-day, the second on Michaelmas.

*n.* The Bursar's rolls (annual) of New College, used in these tables for the prices of one year only, 1582.

*e.* Prices in Eden's "History of the Poor." These are not very trustworthy, unless supported by other testimony.

*r.* Robert's "Southern Counties."

*w.* Lord Wharton's "Household Book," in the *Archæologia Æliana*, 1585.

*s.* Shuttleworth Accounts.

In some of the cols. as "Hops," the prices are in pence, and consistently with the notation of the rest of the table, are expressed "2s," which signifies twopence, from the *s* or *Shuttleworth Accounts*.

Where no letter is annexed the price is taken from the Shuttleworth Accounts.

Years.	Wheat. (Qr. 8 bushels.)	Rye. (Qr. 8 bushels.)	Barley. (Qr. 8 bushels.)	Malt. (Qr. 8 bushels.)
1582 ...	16/4 <i>n</i> , 22/8 <i>n</i>	—	16/ <i>n</i>	—
'83 ...	{ 19/ <i>e</i> , 17/9 <i>l</i> , 16/7 <i>l</i> , 49/4 <i>s</i> }	—	16/8 <i>s</i> , 16/ <i>s</i> , 18/8	11 4 <i>l</i>
'84 ...	{ 20/ <i>e</i> , 37/4 <i>s</i> , 15/5 <i>l</i> , 16/ <i>l</i> }	—	—	11/4 <i>l</i> , 11/4 <i>l</i>
'85 ...	{ 24/ <i>e</i> , 17/2 <i>l</i> , 24/11 <i>l</i> , 26/8 <i>w</i> , 53/4 <i>w</i> }	26/8 <i>w</i>	—	{ 11/4 <i>l</i> , 13/10 <i>l</i> , 26/8 <i>w</i> }
1586 ...	{ 40/ <i>s</i> , 60/ <i>s</i> , 50/8 <i>s</i> , 28/ <i>r</i> , 64/ <i>r</i> , 29/8 <i>l</i> , 34/4 <i>l</i> }	48/ <i>r</i> , 36/ <i>e</i>	{ 18/8 <i>r</i> , 42/8 <i>r</i> , 32/ <i>s</i> 26/8 <i>s</i> }	24/ <i>e</i> , 16/4 <i>l</i> , 17/7 <i>l</i>
'87 ...	{ 100/ <i>e</i> , 20/ <i>e</i> , 39/11, 16/7 <i>l</i> , 80/ <i>r</i> , 96/ <i>s</i> }	21/4 <i>r</i>	17/4 <i>r</i> , 18/ <i>r</i>	21/4 <i>l</i> , 15/11
'88 ...	11/10 <i>l</i> , 16/7 <i>l</i>	—	—	9/5 <i>l</i> , 9/5 <i>l</i>
'89 ...	19/ <i>l</i> , 20/2 <i>l</i>	10/ <i>e</i> , 16/ <i>e</i>	13/4 <i>e</i>	11/4 <i>l</i> , 13/6 <i>l</i>
1590 ...	23/8 <i>l</i> , 22/6 <i>l</i> , 21/ <i>e</i>	17/6 <i>e</i>	13/4 <i>e</i>	12/7 <i>l</i> , 20/11
'91 ...	21/4 <i>l</i> , 19/ <i>l</i> , 18/ <i>e</i> , 39/ <i>s</i>	—	—	18/10 <i>l</i> , 15/8 <i>l</i>
'92 ...	{ 30/10 <i>s</i> , 16/7 <i>l</i> , 24/8 <i>s</i> , 18/ <i>e</i> , 29/8 }	—	18 8 <i>s</i>	11/4 <i>l</i> , 11/4 <i>l</i>
'93 ...	{ 21/4 <i>s</i> , 16/ <i>l</i> , 20/9 <i>l</i> , 20/ <i>e</i> , 12/ <i>e</i> }	8/ <i>e</i>	12/ <i>e</i>	{ 12/ <i>e</i> , 10/8 <i>l</i> , 11/11 <i>l</i> }
'94 ...	{ 22/6 <i>l</i> , 41/6 <i>l</i> , 48/ <i>e</i> , 56/ <i>e</i> }	40/ <i>e</i> , 32/ <i>e</i>	18/8 <i>s</i>	12/7 <i>l</i> , 20/11

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Wheat. (Qr. 8 bushels.)	Rye. (Qr. 8 bushels.)	Barley. (Qr. 8 bushels.)	Malt. (Qr. 8 bushels.)
1595 ...	{ 39/11, 37/11 <i>l</i> , 72/ <i>r</i> , 50/8 <i>s</i> , 42/ <i>e</i> , 44/ <i>e</i> , 53/4 <i>e</i> }	80/ <i>r</i> , 42/8 <i>s</i> , 26/8 <i>e</i>	24/ <i>s</i> , 20/ <i>e</i>	64/ <i>r</i> , 22/7 <i>l</i>
'96 ...	{ 35/7 <i>l</i> , 56/11 <i>l</i> , 36/ <i>e</i> , 100/ <i>e</i> , 80/ <i>r</i> , 120/ <i>r</i> }	60/ <i>r</i> , 48/ <i>e</i> , 39/4 <i>e</i>	48/ <i>r</i>	18/10 <i>l</i> , 30/11
'97 ...	{ 64/ <i>l</i> , 49/9 <i>l</i> , 160/ <i>r</i> , 32/ <i>e</i> , 106/8 <i>e</i> }	112/ <i>r</i> , 42/6 <i>e</i> , 72/6 <i>e</i> }	104/ <i>r</i> , 120/ <i>r</i>	37/8 <i>l</i> , 32/8 <i>l</i>
'98 ...	{ 47/5 <i>l</i> , 28/5 <i>l</i> , 64/ <i>r</i> , 16/ <i>e</i> , 18/ <i>e</i> }	48/ <i>r</i>	48/ <i>r</i>	25/11
'99 ...	{ 32/ <i>r</i> , 26/11, 21/4 <i>l</i> , 27/ <i>e</i> , 28/ <i>e</i> }	—	20/ <i>r</i>	15/11, 13/10 <i>l</i>
1600 ...	24/11 <i>l</i> , 33/2 <i>l</i>	—	—	13/10 <i>l</i> , 20/11
'01 ...	28/5 <i>l</i> , 24/11 <i>l</i> , 42/8 <i>r</i>	—	30/8 <i>s</i>	20/11, 18/10 <i>l</i>
'02 ...	20/2 <i>l</i> , 28/5 <i>l</i> , 69/4 <i>r</i>	—	24/ <i>s</i>	{ 15/11, 13/10 <i>l</i> , 26/8 <i>s</i> }
'03 ...	30/3 <i>l</i> , 23/11	—	24/ <i>s</i> , 26/8 <i>s</i>	12/7 <i>l</i> , 12/7 <i>l</i>
'04 ...	{ 40/ <i>s</i> , 23/8 <i>l</i> , 24/11 <i>l</i> , 53/4 <i>r</i> }	—	—	11/11 <i>l</i> , 14/11
1605 ...	{ 28/5 <i>l</i> , 25/6 <i>l</i> , 40/ <i>s</i> , 45/4 <i>s</i> }	—	20/ <i>s</i>	17/7 <i>l</i> , 19/5 <i>l</i>
'06 ...	23/8 <i>l</i> , 27/3 <i>l</i>	—	20/ <i>s</i>	{ 34/8 <i>s</i> , 16/11 <i>l</i> , 16/11 <i>l</i> }
'07 ...	30/10 <i>l</i> , 27/3 <i>l</i>	—	—	16/4 <i>l</i> , 16/4 <i>l</i>
'08 ...	32/ <i>l</i> , 56/11 <i>l</i>	—	—	16/11 <i>l</i> , 25/11
'09 ...	51/ <i>l</i> , 29/8 <i>l</i>	—	—	26/4 <i>l</i> , 23/10 <i>l</i>
1610 ...	26/11, 28/5 <i>l</i>	—	—	16/4 <i>l</i> , 15/11
'11 ...	29/8 <i>l</i> , 30/10 <i>l</i>	—	—	15/8 <i>l</i> , 18/2 <i>l</i>
'12 ...	35/7 <i>l</i> , 37/11 <i>l</i>	—	—	20/11, 25/11
'13 ...	36/9 <i>l</i> , 42/8 <i>l</i>	—	—	25/11, 22/7 <i>l</i>
'14 ...	42/8 <i>l</i> , 45/7 <i>l</i>	—	—	25/11, 26/4 <i>l</i>
1615 ...	29/ <i>l</i> , 35/7 <i>l</i>	—	—	21/4 <i>l</i> , 22/7 <i>l</i>
'16 ...	35/7 <i>l</i> , 34/4 <i>l</i>	—	—	23/10, 20/11
'17 ...	64/ <i>s</i> , 37/11 <i>l</i> , 41/6 <i>l</i>	—	16/8 <i>l</i> , 29/4 <i>s</i>	17/7 <i>l</i> , 17/7 <i>l</i>
'18 ...	64/ <i>s</i> , 72/ <i>s</i> , 40/4 <i>l</i> , 35/7 <i>l</i>	—	15/3 <i>l</i> , 16/11, 32/ <i>s</i>	17/7 <i>l</i> , 20/11
'19 ...	{ 64/ <i>s</i> , 30/10 <i>l</i> , 40/ <i>e</i> , 30/10 <i>l</i> }	—	13/11 <i>l</i> , 15/11	17/7 <i>l</i> , 17/7 <i>l</i>
1620 ...	48/ <i>s</i> , 64/ <i>s</i> , 26/8 <i>l</i> , 26/11	—	10/10 <i>l</i> , 13/4 <i>l</i>	16/11 <i>l</i> , 14/5

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Oats. (Qr. 8 bushels.)	Peas. (Qr. 8 bushels.)	Beans. (Qr. 8 bushels.)	Hops. (lb.)	Seeds. (Qr. 8 bushels.)		
					Linseed.	Mustard.	Hemp.
1582	—	—	—	/5½s, /2s	—	—	—
'83	—	—	—	/5½s	—	—	—
'84	9/2s	20/2s	20/9s	—	—	—	16/s
'85	—	—	—	/6w, /5½	—	—	—
1586	—	—	40/s	—	—	—	—
'87	12/r	—	55/4s	/4e	—	—	37/4s
'88	—	—	—	/7s	—	—	56/s
'89	—	—	—	—	26/8s	—	37/4s
1590	5/4e	—	—	—	—	—	—
'91	—	—	26/8s	—	—	69/4s	—
'92	—	—	—	/6½s	—	—	—
'93	—	13/4e	13/4e	—	—	64/s	42/8s
'94	—	—	16/s, 17/4s	—	—	—	—
1595	—	—	—	/4½s	28/8s, 49/s	—	—
'96	18/8r	—	—	/4s	—	—	—
'97	32/r, 28/s	—	—	/5s	—	—	—
'98	14/8r	—	—	/5s	—	50/8s	48/s
'99	—	—	—	—	—	—	53/4s
1600	—	—	26/8s	/6s, /7s	—	—	—
'01	18/8s	—	—	/8s	—	—	—
'02	—	—	—	—	—	—	—
'03	—	—	—	1/6s	—	—	—
'04	9/4e	—	—	—	—	—	—
1605	—	19/4s	—	/7s, /7½s	—	—	—
'06	—	—	—	—	—	—	—
'07	—	—	—	—	—	—	—
'08	—	—	—	—	—	—	—
'09	15/4s, 12/s	—	London. 20/s	—	—	—	—

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Oats. (Qr. 8 bushels.)	Peas. (Qr. 8 bushels.)	Beans. (Qr. 8 bushels.)	Hops. (lb.)	Seeds, (Qr. 8 bushels.)		
					Linseed.	Mustard.	Hemp.
1610	—	Pottage. Cattle. 32/s, 13/4s	—	/9s	—	—	—
'11	—	—	—	—	—	—	—
'12	—	—	80/s, 54/8	—	—	—	—
'13	16/s	—	—	—	—	—	—
'14	—	—	—	—	—	—	—
1615	—	32/e	—	—	—	—	—
'16	—	—	—	—	—	—	—
'17	—	—	—	/6½s	—	64/s	—
'18	—	—	—	/9½s	—	—	—
'19	—	—	—	/11½s	—	—	—
1620	8/11l, 10/1l	16/8l, 17/2l	15/8l, 18/8l	—	—	—	—

  

Years.	Beef.		Mutton.			Veal. (Carcase.)
	Carcase.	Stone.	Carcase.	Suet.	Lamb.	
1582	105/s, 102/6s	—	4/s	—	—	4/s
'83	—	—	5/4, 2/8	—	—	4/s
'84	—	—	5/4	—	—	4/, 5/4
'85	60/w, 40/w	—	3/4w, 4/w, 5/w	—	—	4/w
1586	—	—	13/4	/4	—	5/, 6/, 11/
'87	—	—	11/, 6/, 6/8	/4	—	4/8, /6
'88	85/8	—	10/	—	—	12/
'89	—	—	—	—	—	—
1590	—	—	5/4	—	—	4/4, 6/
'91	—	—	—	—	5/	6/
'92	—	—	—	—	—	—
'93	—	—	6/6, 7/4	—	—	5/4
'94	—	—	—	—	—	4/11
1595	—	3/e	14/e	—	—	—
'96	—	1/6e	18/e	—	—	5/, 5/4
'97	—	1/6e, 2/2e	—	—	—	—
'98	—	1/6e	12/, 15/	—	—	—
'99	—	—	—	—	—	—



TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Beef.		Mutton.			Veal. (Carcase.)
	Carcase.	Stone.	Carcase.	Suet.	Lamb.	
1600 ....	48/4	—	6/4	/4	—	4/
'01 ....	—	—	—	/4	—	6/
'02 ....	—	—	7/1	—	—	4/8, 9/6
'03 ....	—	—	—	—	—	—
'04 ....	—	—	—	—	—	8/
1605 ....	—	—	—	—	—	6/, 10/8
'06 ....	—	—	6/, 5/4	—	—	10/8, 8/8
'07 ....	—	—	—	—	—	—
'08 ....	—	London. 1/6	—	/5	—	—
'09 ....	—	—	—	—	—	—
1610 ....	—	—	9/, 11/6	—	—	8/, 16/6, 18/11
'11 ....	—	—	—	/4	—	8/8
'12 ....	40/ 29/4	—	6/, 10/8	/4½	—	—
'13 ....	—	—	—	—	—	12/
'14 ....	—	—	—	—	—	—
1615 ....	—	—	—	—	—	—
'16 ....	—	—	—	—	—	—
'17 ....	—	—	—	/5	—	8/, 6/7
'18 ....	54/	—	8/	—	—	9/3
'19 ....	—	1/6	10/	/4	—	—
1620 ....	—	—	7/4	/5	—	—

  

Years.	Pork. (Carcase.)	Oxen. (Carcase.)	Calves. (Carcase.)	Sheep. (Carcase.)	Lambs. (Carcase.)	Wool, (Stone.)
1582 ....	—	—	—	—	—	—
'83 ....	—	{ Cows 32/6, 26/ 58/10, 40/8 }	4/2	—	—	—
'84 ....	—	{ Cows 43/, 33/4 90/, 52/4 }	6/2, 4/4, } 2/8e, 7/e }	6/	1/6e, 2/e	—
'85 ....	1/w	140/e	—	4/, 12/6e	—	—
1586 ....	1/6	80/, 60/	—	5/	—	—
'87 ....	—	81/, 53/4	7/4e	5/7½	2/-½	4/
'88 ....	1/	60/2	5/10	—	4/8	—
'89 ....	7/9e, 8/e, 3/e	72/3	—	{ 6/8, 4/10½, 5/e }	—	10/

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Pork. (Carcase.)	Oxen. (Carcase.)	Calves. (Carcase.)	Sheep. (Carcase.)	Lambs. (Carcase.)	Wool. (Stone.)
1590 ....	—	60/	—	6/4e, 6/8e	—	—
'91 ....	2/3, 1/2	52/4, 50/	—	—	—	—
'92 ....	1/11, 3/4	81/, 69/6	—	—	—	13/
'93 ....	—	—	—	—	—	—
'94 ....	—	75/, 60/	—	5/8	3/	—
1595 ....	—	71/	—	—	—	13/4
'96 ....	2/8e	—	—	5/, 15/e	—	—
'97 ....	—	80/7½,	{ 6/4e, 8/e, 5/9 }	{ 14/6e, 18/e, 3/9, 5/2 }	—	13/4
'98 ....	1/e	90/	12/8, 4/	5/7, 7/6e	1/3	—
'99 ....	—	82/6	—	5/	6/	—
1600 ....	—	—	—	—	—	—
'01 ....	—	78/9, 84/	—	—	—	—
'02 ....	—	—	—	—	—	—
'03 ....	—	—	—	—	—	—
'04 ....	3/	70/6	—	—	—	7/6
1605 ....	3/8, 2/8	85/6, 64/6	—	—	—	—
'06 ....	—	86/8	—	—	—	—
'07 ....	—	—	—	—	—	—
'08 ....	London. 2/, 2/6	—	—	—	London. 6/	—
'09 ....	London. 2/6	—	—	—	London. 7/4	—
1610 ....	2/4, 5/	—	—	—	5/, 6/8e	—
'11 ....	—	95/4	—	—	—	—
'12 ....	1/6	87/6, 94/	8/9, 9/	—	—	—
'13 ....	—	84/5	—	5/4	—	—
'14 ....	—	—	—	—	—	—
1615 ....	Bacon, stone. 2/2	—	—	—	—	—
'16 ....	—	—	—	—	—	—
'17 ....	—	123/4	—	6/10	—	—
'18 ....	—	115/	—	5/, 6/8	4/, 3/8	—
'19 ....	—	150/, 114/6	6/, 7/6,	—	5/4	—
1620 ...	—	116/, 93/4	11/, 9/	—	—	—

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Pigeons. (Dozen.)	Chickens.	Capons.	Hens.	Geese.
1582	—	—	—	/4s	—
'83	—	/1½s, /2s	—	—	—
'84	—	/1½s, /2s	—	—	/8s
'85	—	—	1/w, 1/2w	/3w, /4w	/4w, /8w, /10w
1586	—	/1s, /2s	—	—	/4s, /5s
'87	—	/2½s	—	—	/4s
'88	—	—	/8s, /9s, /10s	/4s, /5s	/5s
'89	—	—	—	—	1/e, 1/2e, /3s
1590	—	/2s, /2½s	/7s, /8s, /8½s	—	/4s
'91	—	/2s	/6s, /6½s, /7s	/4s	—
'92	1/6s	—	—	—	/5s
'93	—	/2s	/6s	—	/4s, /9s
'94	—	/2	—	—	/4s
1595	—	—	3/4e	—	/3½s
'96	—	—	2/3e	—	/4s, /8s, 1/e, 1/8e
'97	—	/8e, /4s	3/e, 3/4e	—	/3s
'98	1/6s	/2s, /2½s	1/e, 1/2e	/6e	/6s, /7s
'99	—	/2s	—	—	/4½s
1600	—	—	—	—	—
'01	—	—	—	—	—
'02	—	/2s	—	—	—
'03	—	—	—	—	—
'04	—	—	—	—	—
1605	—	/2s	—	—	—
'06	—	—	—	—	—
'07	—	—	—	—	—
'08	—	/6s, /9s	2/4s	—	2/2s
'09	2/s	—	—	—	—
1610	—	/3½	1/s	—	/6s, /8s
'11	—	—	—	—	—
'12	1/s	/2s, /2½s	1/2s	/6s	/7s
'13	—	—	—	—	—
'14	—	—	—	—	—

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Year.	Pigeons. (Dozen.)	Chickens.	Capons.	Hens.	Geese.
1615	—	—	—	—	—
'16	—	—	—	—	—
'17	—	—	1/s	/4s	/5s, /8s, /9s
'18	—	/3s	1/s	—	/10s, 1/s,
'19	—	—	2/5½s	'/3½s	/9s
1620	—	/2½s, /3s	—	—	/8s, 1/s

  

Years.	Larks, (Dozen.)	Rabbits, (Couple.)	Eggs, (100.)	Ducks.	Snipes.
1582	—	—	—	—	—
'83	—	—	—	—	—
'84	—	—	—	—	—
'85	—	/4w, /6w	—	/4w	/1½w, /1¼w
1586	—	—	c /11½w	—	—
'87	/1s, /1½s, /2s	—	—	—	—
'88	—	/6½s	1/4½s	—	—
'89	/2s	—	—	—	—
1590	/2s	/9s	—	—	/½s
'91	/2s	/7s, /10s	1/4½s	/3s	/½s
'92	/2s, /2½s	/6s, /10s,	—	/2s	—
'93	—	/10s	—	/2s	—
'94	/2s	/10s	—	—	/1¼s
1595	/1¼s	1/4e	—	—	/1s
'96	/1e	—	—	—	/2s
'97	/2s	1/e, 1/2e, 1/8e	—	—	/1½s
'98	—	/6e, 1/e	1/8s, 2/1s	/4e	—
'99	1/s	—	—	—	/2s
1600	—	—	—	—	—
'01	—	—	—	—	—
'02	—	—	—	—	—
'03	—	—	—	—	—
'04	—	—	—	—	—

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Larks. (Dozen.)	Rabbits. (Couple.)	Eggs. (100.)	Ducks.	Snipes.
1605 .....	—	—	—	—	—
'06 .....	—	—	—	—	—
'07 .....	—	—	—	—	—
'08 .....	—	1/s	3/4s	—	—
'09 .....	—	—	—	—	—
1610 .....	—	8s, 10s	2/s	—	1s
'11 .....	2s	1/s	—	—	—
'12 .....	—	—	—	—	—
'13 .....	—	—	—	—	—
'14 .....	—	—	—	—	—
1615 .....	—	—	—	—	—
'16 .....	—	—	1/4½s	—	—
'17 .....	2s	10s	1/4½s	—	1s
'18 .....	—	—	1/4½s, 10s	—	—
'19 .....	—	1/5e	4/e	—	—
1620 .....	—	—	—	—	—

Year.	Soap. (lb.)	Butter. (Stone.)	Tallow and Candles. (Stone.)	Honey. (Gallon.)	Herrings. Red and White. (100.)	Salmon. (Each.)	Salt Fish. (Dozen.)
1582 ....	—	2/8s	—	—	—	—	—
'83 ....	4s	3/s	—	—	{ 2/-½s, 1/20½s } 1/10½s	—	4/5s
'84 ....	—	—	—	2/4s	1/10½s	4/s	—
'85 ....	—	—	3/8w, 4/8w	—	2/6w	2/w, 5/8½s	10/s, 12/s
1586 ....	—	—	Tallow. 4/6s	—	—	—	—
'87 ....	3/e	3/6e, 2/11e	4/8e, 5/10e	—	3/4s	7/s	—
'88 ....	—	—	—	2/4s	2/-½s	6/1s	—
'89 ....	8e	4/8e	4/8e	—	2/s	7/s	20/, 4/, 4/6
1590 ...	—	—	—	—	1/11½s	—	—
'91 ....	—	—	—	—	{ 2/4s, 1/9½s, } 1/6s	6/s	—
'92 ....	—	—	—	—	3/4s, 2/s	—	20/
'93 ....	—	—	—	—	{ 2/7s, 3/8s, } 2/3s	7/s	—
'94 ....	—	London. 5/10s	—	—	2/9s, 3/4s	4/s, 8/6s	48/ @ 19/6

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Soap. (lb.)	Butter. (Stone.)	Tallow and Candles. (Stone.)	Honey. (Gallon.)	Herrings. Red and White. (100.)	Salmon. (Each.)	Salt Fish. (Dozen.)
1595 ....	—	—	—	—	3/s	6/8s, 5/s	30/s
'96 ....	—	4/8e, 5/10e	4/8e, 5/10e	—	—	3/8s, 6/	36/s
'97 ....	—	5/10e, 7/2e	5/3e	5/4s	—	—	33/
'98 ....	—	5/3e	4/8e	—	3/8s, 3/4s	3/8s, 9/s	—
'99 ....	—	—	—	—	2/6s	7/8s	—
1600 ....	4s	3/4s	5/3s, 5/10s	4/8s, 5/4s	—	—	—
'01 ....	4s	3/4s, 4/s	5/3s, 5/10s	5/4s	—	—	—
'02 ....	—	4/s	5/10s	5/4s, 6/s	—	3/s	—
'03 ....	—	—	—	—	2/s	—	—
'04 ....	—	2/8s	—	4/s	—	—	—
1605 ....	—	—	5/10s	—	2/7½s	—	—
'06 ....	—	3/8s	—	—	2/1s	3/4s	—
'07 ....	—	—	—	—	—	—	—
'08 ....	—	London. 5/10s, 7/2s	London. 4/8s	—	—	—	—
'09 ....	London. 3/4s	London. 7/2s	—	—	London. 3/s, 2/8s, 2/s	2/6s	—
1610 ....	—	—	5/10s	—	—	6/s	30/s
'11 ...	—	4/s	4/11½s	—	—	—	—
'12 ....	4½s	4/s	4/3½s	5/4s, 6/4s	2/8s	—	20/s, 22/s
'13 ....	4s	4/s	{ 4/8s, 4/11½s, } 5/3s	—	2/5s	—	24/s
'14 ....	—	—	—	—	—	—	—
1615 ....	—	5/e	—	—	—	—	—
'16 ....	—	—	—	—	—	—	—
'17 ....	1/	—	—	5/4s	—	1/6s	30/s
'18 ....	1/	3/4s, 4/s	—	—	—	—	24/
'19 ....	—	7/2e	—	5/4s	—	—	—
1620 .	1/	—	—	5/4	—	—	—

Years.	Wine, Red. (Gallon.)	Wine, White. (Gallon.)	Wine, French. (Gallon.)	Vinegar. (Gallon.)	Flax. (Stone.)	Hemp. (Stone.)
1582 ....	—	2/s, 2/8s	1/4s	1/4s	—	—
'83 ....	—	2/s, 2/4s	1/11s, 1/4s	1/4s	—	—
'84 ....	3/4s	2/9s	—	—	—	—
'85 ....	—	2/8s, 3/s, 3/11½s	1/4s	1/4s	—	—



TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Wine, Red. (Gallon.)	Wine, White. (Gallon.)	Wine, French. (Gallon.)	Vinegar. (Gallon)	Flax. (Stone.)	Hemp. (Stone)
1586 ....	—	—	—	—	—	—
'87 ....	—	3/3s	—	—	—	—
'88 ...	—	1/8s, 3/2s, 2/s	1/8½s	1/2s	—	—
'89 ...	—	3/3s	2/8s	—	—	—
1590 ....	—	3/1½s	—	—	—	3/2s, 3/5s
'91 ....	—	3/4s	—	—	—	—
'92 ....	—	3/2s, 2/4	1/7s	—	—	—
'93 ....	—	—	—	—	—	7/11½s
'94 ....	—	2/s	2/s	—	—	—
1595 ....	—	—	—	—	—	5/4s
'96 ...	—	2/8s, 2/e, 4/s	2/8e, 2/9e, 2/e	/8e	—	—
'97 ...	3/4e	2/8e	2/e	/8e	—	—
'98 ...	—	4/e, 4/8e	2/8e	/8e	—	—
'99 ...	—	4/e	2/8e	—	—	—
1600 ....	—	—	—	—	—	—
'01 ....	—	—	—	—	6/8s	—
'02 ....	—	—	2/8e	—	—	—
'03 ....	—	—	—	—	—	—
'04 ....	—	—	—	—	—	—
1605 ....	—	—	—	—	—	—
'06 ....	—	—	—	—	—	—
'07 ....	—	—	—	—	—	—
'08 ...	3/4s, 4s/	2/8s	2/8s r	2/8s	—	—
'09 ...	—	4/s	—	—	—	—
1610 ....	—	3/s, 4/s	2/8s	1/4s	6/1s	—
'11 ....	—	4/s	—	—	6/s	—
'12 ....	—	1/8s, 2/s, 3/4s	2/s	—	5/9s	—
'13 ....	—	—	2/s	—	—	—
'14 ....	—	—	—	—	—	—
1615 ....	—	—	—	—	—	—
'16 ....	—	—	—	—	—	—
'17 ...	—	4/s, 4/s, 3/s	2/s	—	—	—
'18 ...	4/7	—	—	1/4s	9/6s	—
'19 ...	—	4/e, 2/8e	4/e	—	—	—
1620 ....	—	3/4s, 2/8s	—	—	—	14/, 9/4

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Cinnamon. (lb.)	Mace. (lb.)	Cloves. (lb.)	Ginger. (lb.)	Pepper. (lb.)
1582 ....	—	—	—	—	—
'83 ...	—	—	—	—	4/s, 2/8s, 2/10s
'84 ...	—	—	—	—	4/s
'85 ...	12/ @ 8/8w	14/8 @ 14/w	7/ @ 4/6w	3/ @ 1/8w	3/8w @ 5/w
1586 ....	—	—	—	—	—
'87 ...	—	—	—	—	4/s
'88 ...	—	—	—	—	—
'89 ...	—	—	—	—	—
1590 ....	—	—	13/4e	—	—
'91 ...	—	—	—	—	3/6s
'92 ...	—	—	—	—	—
'93 ...	—	—	—	—	—
'94 ...	—	—	—	—	—
1595 ....	—	—	—	—	—
'96 ...	—	—	—	3/s	3/8s
'97 ...	5/e, 7/6e	—	7/6e	3/4e	3/10e
'98 ...	—	—	8/e	—	3/4e @ 8/e
'99 ...	—	—	—	—	—
1600 ....	—	—	—	—	5/4s
'01 ....	—	—	—	—	5/4s
'02 ...	—	—	—	—	3/1s, 5/4s
'03 ...	—	—	—	—	—
'04 ...	—	—	—	—	2/4s
1605 ....	—	—	—	—	—
'06 ...	—	—	—	—	—
'07 ...	—	—	—	—	—
'08 ...	—	10/s	5/4s	1/4s	2/s
'09 ...	—	—	—	—	—
1610 ....	10/8s	—	—	—	—
'11 ...	—	—	—	—	—
'12 ...	—	—	—	—	—
'13 ...	—	—	—	—	—
'14 ...	—	—	—	—	—

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Cinnamon. (lb.)	Mace. (lb.)	Cloves. (lb.)	Ginger. (lb.)	Pepper. (lb.)
1615 ....	—	—	—	—	—
'16 ....	4/s	7/9s	7/6s	1/6s, 1/8s	—
'17 ....	4/s	7/6s, 7/9s	7/4s	1/4s	—
'18 ....	5/4s	—	—	1/4s	—
'19 ....	5/4e	—	—	—	—
1620 ....	—	—	—	1/4s	—

  

Years.	Aniseed. (lb.)	Nutmegs. (lb.)	Carraways. (lb.)	Saffron. (oz.)	Sanders. (lb.)	Raisins. (lb.)
1582 ....	—	—	—	—	—	—
'83 ....	—	—	—	—	—	—
'84 ....	—	—	—	—	—	—
'85 ....	/9w	7/4w @ 9/w	—	2/6w	—	/4w
1586 ....	—	—	—	—	—	/2½s
'87 ....	—	—	—	—	—	/4s
'88 ....	—	—	—	—	—	—
'89 ....	—	—	—	—	—	—
1590 ....	—	—	—	—	—	—
'91 ....	—	—	—	—	—	/4½s
'92 ....	—	—	—	—	—	—
'93 ....	—	—	—	—	—	/3½s
'94 ....	—	—	—	—	—	—
1595 ....	—	—	—	—	—	—
'96 ....	—	—	—	—	—	—
'97 ....	—	6/e	—	—	—	—
'98 ....	—	—	—	—	—	/6e
'99 ....	—	—	—	—	—	—
1600 ....	—	—	—	—	—	—
'01 ....	1/s, 1/4s	—	/6s	—	—	—
'02 ....	1/4s	—	—	—	—	/6s
'03 ....	—	—	—	—	—	—
'04 ....	1/s	—	—	—	—	/6s

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Aniseed. (lb.)	Nutmegs. (lb.)	Carraways. (lb.)	Saffron. (oz.)	Sanders. (lb.)	Raisins. (lb.)
1605 ....	/8s	—	—	—	—	/7s
'06 ....	/10s	—	—	—	—	—
'07 ....	—	—	—	—	—	—
'08 ....	—	—	—	—	—	—
'09 ....	—	—	—	—	—	—
1610 ....	1/2s	6/s, 8/s	—	—	—	/4½s, /6s
'11 ....	—	6/8s	—	—	—	/4s @ /4½s
'12 ....	/10s	—	—	—	—	—
'13 ....	—	—	—	—	—	/8s
'14 ....	—	—	—	—	—	—
1615 ....	—	—	—	—	—	—
'16 ....	—	—	—	2/s	—	/5s
'17 ....	/10s	3/8s	—	2/s	5/s	/6s @ /3s
'18 ....	—	—	—	—	—	/5s
'19 ....	—	5/4s	—	—	—	—
1620 ....	—	2/8s (inferior)	—	—	—	—

  

Years.	Currants. (lb.)	Prunes. (lb.)	Figs. (lb.)	Dates. (lb.)	Almonds. (lb.)	Sugar. (lb.)	Rice. (lb.)
1582 ....	—	—	—	—	—	—	—
'83 ....	—	—	/3s	—	—	—	—
'84 ....	—	—	—	—	—	—	—
'85 ....	/3w	/3w	—	—	1/w	1/w @ 1/8w	/4w, /6w
1586 ...	—	/3½s	—	—	—	—	—
'87 ....	—	—	—	—	—	—	—
'88 ....	—	—	—	—	—	—	—
'89 ....	—	—	—	—	—	—	—
1590 ....	—	—	—	—	—	—	—
'91 ....	—	/4s	/3½s	—	1/1s	—	—
'92 ....	—	—	—	—	—	—	—
'93 ....	—	—	—	—	—	—	—
'94 ....	—	—	—	—	—	1/4s	—

TABLE C.—Prices of Commodities in ENGLAND, 1582-1620—Contd.

Years.	Currants. (lb.)	Prunes. (lb.)	Figs. (lb.)	Dates. (lb.)	Almonds. (lb.)	Sugar. (lb.)	Rice. (lb.)
1595 ....	—	/4½s	—	—	—	—	—
'96 ....	/5e	/5e	—	—	1/e	1/e	—
'97 ....	—	—	—	2/e	1/1e	1/3½e @ 1/9e	—
'98 ....	—	—	—	—	—	1/8e	—
'99 ....	—	—	—	—	—	—	—
1600 ....	—	—	—	—	—	—	—
'01 ....	/4s	/3s	—	—	—	—	—
'02 ....	/5½s	/3s	—	—	—	—	—
'03 ....	—	—	—	—	—	—	—
'04 ....	/6s	/4s	—	—	—	—	—
1605 ....	/7s	/4s	—	—	—	—	—
'06 ....	/6s	/3s	—	—	—	—	—
'07 ....	—	—	—	2/s	—	—	/5s
'08 ....	—	—	—	—	—	—	—
'09 ....	—	—	—	—	—	/10½s	—
1610 ....	/6s, 1/s	/3s	—	3/s	1/4s	1/10s, 2/s	/6s, /10s
'11 ....	/7 @ /4½s	/3s	—	—	—	1/9s, 1/10s	—
'12 ....	—	—	—	—	—	1/6½s	—
'13 ....	/6½s	—	/4½s	—	—	1/8s @ 1/10½s	—
'14 ....	—	—	—	—	—	—	—
1615 ....	—	—	—	—	—	—	—
'16 ....	/6s	/2s	2/s	—	—	1/2s	/3s
'17 ....	/5½s @ /7s	/2s	/4s	2/s	1/3s	/11½ @ 1/2	/3s
'18 ....	—	—	/3s	—	1/6s	1/2s, 1/5s	—
'19 ....	—	—	—	—	—	1/e	—
1620 ....	/7s	/3s	—	—	—	—	—

Years.	Lead. (Fother.)	Steel. (Faggot.)	Iron. (Ton.)	Tin or Solder. (lb.)	Brass. (Stone.)	Ploughing.	
						Day.	Acre.
1582 ...	—	—	—	—	—	—	—
'83 ...	—	—	16/13/4s @ 8/13/4s	—	—	—	—
'84 ...	—	—	13/13/4s	—	—	—	—
'85 ...	—	—	14/-/s	—	—	—	1/3s

TABLE C.—Prices of Commodities in ENGLAND, 1582-1620—Contd.

Years.	Lead. (Fother.)	Steel. (Ton.)	Iron. (Ton.)	Tin or Solder. (lb.)	Brass. (lb.)	Ploughing.	
						Day.	Acre.
1586 ....	9/14/2s	—	15/8/8s	—	—	—	1/11s
'87 ....	—	—	—	—	/4s	/4s	1/2s, 1/3
'88 ....	11/4/-½s	—	—	—	—	—	—
'89 ....	—	—	—	—	—	/5s	—
1590 ....	—	—	14/4/10½s	—	—	—	1/3s
'91 ....	—	—	—	—	—	/5s	1/3s
'92 ....	—	—	—	—	—	—	1/3
'93 ....	—	—	12/-/-s	—	/6s	—	—
'94 ....	—	—	—	—	—	—	—
1595 ....	—	—	—	—	—	—	—
'96 ....	—	—	—	—	—	—	—
'97 ....	—	—	—	—	—	—	—
'98 ....	—	—	—	—	—	—	—
'99 ....	—	—	—	—	—	—	—
1600 ....	—	37/-/-	{ 16/13/4s 18/10/-s (bars) 15/7/8 (flat) }	—	—	/2	—
'01 ...	7/17/-s	—	14/16/3s @ 15/16/8s	—	—	—	—
'02 ...	—	—	12/10/-s	/6	—	—	—
'03 ...	—	—	—	—	—	—	—
'04 ...	8/9/-s @ 9/2/-s	—	—	—	—	—	—
1605 ....	—	27/15/-	{ 12/-/-s (bars) 18/-/-s }	—	—	/3	—
'06 ....	—	—	—	—	—	—	—
'07 ....	—	—	—	—	—	—	—
'08 ....	—	—	—	—	—	—	—
'09 ....	—	—	—	—	—	—	—
1610 ...	—	—	18/6/8s	—	—	—	—
'11 ....	—	—	—	—	—	—	—
'12 ....	—	—	21/3/4s	—	—	—	—
'13 ....	—	—	—	—	—	—	—
'14 ....	—	—	—	—	—	—	—



TABLE C.—Prices of Commodities in ENGLAND, 1582-1620—Contd.

Years.	Lead. (Fother.)	Steel. (Ton.)	Iron. (Ton.)	Tin or Solder. (lb.)	Brass. (lb.)	Ploughing.	
						Day.	Acres.
1615 ...	—	—	—	—	—	—	—
'16 ...	—	—	—	—	—	—	—
'17 ...	—	—	15/13/4s, 12/-/-s	—	1/	/3	—
'18 ...	—	—	15/13/4s	—	/4	/3	—
'19 ...	—	—	—	—	—	—	—
1620 ...	—	—	—	—	—	—	—

  

Years.	Mowing or Reaping.		Threshing.		Thatching.		Unskilled Day.	Women's Day.
	Day.	Acres.	Day without Food.	Day with Food.	Day without Food.	Day with Food.		
1582 ...	—	—	—	—	—	—	—	—
'83 ...	—	1/6s	/4s	—	/4½s	—	/1½s, /2s	/1s, /1½
'84 ...	—	Oats 3/4s	—	—	/4½s	—	/1½s	/-½
'85 ...	—	—	—	—	—	—	—	—
1586 ..	/3	{ 1/6s, 3/8s, 3/2s }	{ /3s, /5s, /6s }	—	—	—	/1½, /2, /3	/1
'87 ...	—	3/4s	/7e	—	—	/2	—	/1s, /-½
'88 ...	—	1/6s, 3/4s	—	—	/5s	—	—	/1s
'89 ..	—	—	/6s	—	—	—	—	—
1590 ..	—	3/8s	/6s	—	/7s	—	/4s	/4s
'91 ..	/5s	—	—	—	/7s	—	—	/1½s
'92 ...	—	—	—	/2s	/6s	—	—	—
'93 ...	—	—	—	—	—	—	—	—
'94 ...	/3s	3/4s	/1s	—	—	—	/4s, /1s	/4s
1595 ...	/4e, /2e	—	—	—	/1e, /2e	—	/1s	/4s
'96 ...	—	—	—	—	—	—	—	/4s
'97 ...	—	—	—	—	—	—	—	—
'98 ...	—	3/4s	—	—	—	—	—	—
'99 ...	/5s	—	—	—	—	—	—	—
1600 ...	/3s	—	—	—	—	—	/2½s, /3	/1s
'01 ...	/4, /3	—	—	—	—	—	/2½, /1, /2	/2s
'02 ...	/3	2/8s	/6	—	/4	—	/2½	/2s
'03 ...	—	—	—	/2	—	—	/2	—
'04 ...	/4, /3	—	—	—	/4	—	/2, /2½	—

TABLE C.—Prices of Commodities in ENGLAND, 1582-1620—Contd.

Years.	Mowing or Reaping.		Threshing.		Thatching.		Unskilled Day.	Women's Day.
	Day.	Acres.	Day without Food.	Day with Food.	Day without Food.	Day with Food.		
1605 ....	/3, /3	3/	/4	—	—	—	/2, /6	—
'06 ....	—	—	—	—	—	—	/2½, /3	—
'07 ....	—	—	—	—	—	—	—	—
'08 ....	—	—	—	—	—	—	London Gardener 1/	—
'09 ....	—	—	—	—	—	—	London Gardener 1/	—
1610 ....	—	—	—	—	—	—	—	—
'11 ...	—	—	—	/2	—	—	/2, /3	/1
'12 ...	—	1/6	—	/2, /3	—	—	—	/6
'13 ...	—	1/6	—	—	—	—	/2	—
'14 ...	—	—	—	—	—	—	—	—
1615 ....	—	—	—	—	—	—	—	—
'16 ...	—	—	/6	—	—	—	—	—
'17 ...	/10	1/8	—	/2, /2½	—	—	—	—
'18 ...	—	3/8, 1/8	/5	—	—	—	/3	/2
'19 ...	—	—	—	—	—	—	/3	—
1620 ....	—	—	—	—	/4	—	/3	/2

  

Years.	Ditching. (Rod.)	Carpenters. (Day.)	Masons. (Day.)	Smiths. (Day.)
'83 .....	—	/2½	—	/6, /3
'84 .....	/4, /4½	—	—	—
'85 .....	—	—	—	—
1586 .....	/4	/4	—	/4
'87 .....	—	/4	—	/5
'88 .....	—	/4	/4	/4
'89 .....	/7	—	/4	—

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Ditching. (Rod.)	Carpenters. (Day.)	Masons. (Day.)	Smiths. (Day.)
1590 .....	/2½	/3	/4	/4
'91 .....	—	/3	—	/8
'92 .....	/3, /2, /1	—	/4	—
'93 .....	—	/3e, /2e	/2½e, /2e	—
'94 .....	—	/6, /4	—	—
1595 .....	—	—	—	—
'96 .....	—	/1e, /2e, /2½e, /4e	/2½e, /2e	/2e
'97 .....	—	—	—	/6
'98 .....	—	—	/4	/5
'99 .....	—	—	—	—
1600 .....	—	/4	/4, /5	/4
'01 .....	—	/4	/4, /2½	—
'02 .....	—	/3, /4	—	—
'03 .....	—	/4, /5	/4½	/4, /5
'04 .....	—	/3, /4, /6	/5, /6, /4½	/6
1605 .....	—	/4, /4½, /6	/3, /4, /4½, /5, /9	—
'06 .....	—	/6, /5	/6	—
'07 .....	—	—	—	—
'08 .....	—	—	—	—
'09 .....	—	—	—	—
1610 .....	—	/5e, /10e, /3e, /7e	{ /8, /1, /5, /9, /5e, /10e }	—
'11 .....	—	—	—	—
'12 .....	—	—	—	—
'13 .....	—	—	—	—
'14 .....	—	—	—	—
1615 .....	—	—	—	—
'16 .....	—	—	—	—
'17 .....	—	—	—	—
'18 .....	—	/4	—	—
'19 .....	—	/3, /6	—	—
1620 .....	—	/6	/4	—

TABLE C.—Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.

Years.	Weavers.		Nails.		Paper. (Quire.)	Salt. (Bushel.)	Lime. (Bushel.)
	Picce.—Yard.	Day.	Horse-shoe, 1,000.	Double Spiking, 100.			
1582 .....	—	—	—	—	—	—	—
'83 .....	Canvass, yd. /—¾	—	5/	/10	—	—	—
'84 .....	Cloth. Flax. /—¾ /1	—	—	—	—	—	/4s
'85 .....	—	—	—	—	—	2/4w	—
1586 .....	—	—	2/	—	—	—	—
'87 .....	Blankets, yd. /—¾	—	—	—	/4	—	—
'88 .....	Canvass. /1, /—½, /—¾	—	—	—	—	2/2s, 1/10s	—
'89 .....	—	—	—	—	—	2/s	/7½s
1590 .....	—	—	—	—	—	1/8e	—
'91 .....	/—¾, /1, /1½	—	—	—	/3	—	/6½s
'92 .....	—	—	—	—	—	1/8s, 1/10, 3/	/6½s
'93 .....	—	/1	—	—	—	—	—
'94 .....	—	—	—	—	—	1/8s	/6½s
1595 .....	—	—	—	—	—	—	—
'96 .....	—	/1e	—	—	/4	2/8e	/6½s
'97 .....	Yd. flax Wool. /1½, /2½	—	—	—	—	2/e, 3/4e	—
'98 .....	/4	—	—	—	—	2/8e, 3/4e	—
'99 .....	—	—	—	—	/2	2/8s	—
1600 .....	—	—	—	—	—	3/4s	/2½s, /3½s
'01 .....	—	—	—	—	/4	3/9s, 3/9s, 3/4s	Carried. /3½s, /7
'02 .....	—	—	—	/8	/4	2/6s	—
'03 .....	—	—	—	1/	—	—	/3½s
'04 .....	—	—	—	—	—	—	—
1605 .....	Linen. /1, /1¼, /2	—	—	—	/4	—	/3s
'06 .....	—	—	—	—	—	6/s, 6/3s	/4s
'07 .....	—	—	—	—	—	—	—
'08 .....	—	—	—	—	—	London. 1/8s	—
'09 .....	Canvass. /1	—	—	—	—	—	—

TABLE C.—Prices of Commodities in England, 1582-1620—Contd.

Yards.	Weavers.		Nails.		Paper. (Quire.)	Salt. (Bushel.)	Lime. (Bushel.)
	Piece.—Yard.	Day.	Horse-shoe, 1,000.	Double Spiking, 100.			
1610 ....	Canvass. /1	—	—	—	/4	—	—
'11 ....	/1, /2	—	—	—	—	4/s	—
'12 ....	—	—	—	—	—	—	—
'13 ....	—	—	—	—	—	—	/3½s
'14 ....	—	—	—	—	—	—	—
1615 ....	—	—	—	—	—	—	—
'16 ....	—	—	—	—	—	—	—
'17 ....	Fine. /8, /10 Canvass.	—	—	—	/4½, /4	5/10s	—
'18 ....	/1	—	—	—	/4	5/11s	/3½s
'19 ....	Wool. /3	—	—	—	—	—	/8s
1620 ....	Flax. /6	—	—	—	—	—	/6½s

  

Years.	Hides.	Skins.	Tar. (Gallon.)	Gun-powder. (lb.)	Pitch. (lb.)	Hair.		Rent of Land, Meadow. (Acre.)	Interest of Money. (Per Cent.)
						Long. lb.	Short. (Stone.)		
1582 ....	5/6, 5/8	—	—	1/4	—	—	—	10/, 9/, 6/	—
'83 {	11/, 14/, 6/8	}	1/1½	—	—	—	—	10/, 13/, 10/8½	}
'84 ...	7/8								
'85 ....	—	—	—	—	/3	—	—	13/	—
1586 ....	—	—	—	—	/3	—	—	7/4	—
'87 ....	—	—	1/6½	—	/2	—	—	14/3	—
'88 ....	—	/5	—	—	/2	/4	—	9/	—
89 ....	—	—	—	—	—	/3	—	—	—
1590 ....	—	—	—	1/4	/3	—	—	—	—
'91 ...	—	/8	—	—	—	—	—	—	—
'92 ....	—	—	—	1/1	—	—	—	14/3	—
'93 ....	—	—	—	2/8	—	—	—	Pasture. 4/3e	—
'94 ....	17/6, 9/	/10½	1/2	—	/2	—	—	—	—

TABLE C.—Prices of Commodities in England, 1582-1620—Contd.

Years.	Hides.	Skins.	Tar. (Gallon.)	Gun-powder. (lb.)	Pitch. (lb.)	Hair.		Rent of Land, Meadow. (Acre.)	Interest of Money. (Per Cent.)
						Long. (lb.)	Short. (Stone.)		
1595 ...	—	—	—	—	—	/3	—	—	—
'96 ...	—	/8½	1/2	—	/2	—	—	14/	—
'97 ...	—	—	—	1/1r	—	—	—	—	—
'98 ...	—	—	1/2	—	/1½	/3	—	—	—
'99 ...	—	—	—	—	—	—	—	—	—
1600 ...	18/, 9/	—	1/4	—	—	—	—	14/3	—
'01 ...	—	—	—	—	/3	—	—	—	—
'02 ...	—	—	1/4	—	—	—	—	—	—
'03 ...	—	—	1/4	—	/2	—	/4	—	—
'04 ...	14/4	1/	1/4	—	/4	—	—	—	—
1605 ...	—	—	1/4	—	—	—	—	—	—
'06 ...	—	—	1/4	—	—	—	—	—	—
'07 ...	—	—	—	—	—	—	—	—	—
'08 ...	—	—	—	—	—	—	—	—	—
'09 ...	—	—	—	—	—	—	—	—	Short. 21/12/-
1610 ...	—	—	—	—	—	—	—	—	Short. 8/17/3
'11 ...	—	—	1/4	1/	/4	—	—	—	10 per cent.
'12 ...	—	—	—	—	—	—	—	—	10 "
'13 ...	—	—	—	—	—	—	—	—	{ 25/, 8/6/8, 10 per cent.
'14 ...	—	—	—	—	—	—	—	—	—
1615 ...	—	—	—	—	—	—	—	—	—
'16 ...	—	—	—	—	—	—	—	—	10 per cent.
'17 ...	—	—	2/	—	—	—	—	—	10 8 per cent.
'18 ...	—	—	2/	—	—	—	—	—	8/4/-, 10 per cent.
'19 ...	—	—	—	—	/3	—	—	16/	10 "
1620 ...	—	—	1/8	—	/2½	—	—	14/	8/7/6, 10 per cent.



EFFECTS of COMPETITIVE APPOINTMENTS in the CIVIL SERVICE  
of INDIA.

THE following article is from a recent number of the "Friend of India." It will go a long way to dispose of any remaining scruples as regards the good effects of Competitive Appointments to the Indian Civil Service. The truth really is, that if India is to be retained at all by this country, it can only be by sending to it year by year young men who carry with them the latest and best results of our European training and cultivation.—ED. S. J.]

"The exclusive Civil Service of India owe their extinction to the obstinacy of their indulgent masters, the Court of Directors. First they were overtaken by the system of appointments by competition, and Haileybury, with the associations of half a century, was closed for ever. This would have been prevented, Haileybury might have been in existence, and the directors or their successors might still have possessed the cherished privilege of patronage, had the Court accepted the offer of Mr. Macaulay during the discussions on the Charter Act of 1833. Then it was proposed to allow the nomination by the directors of *four* candidates for every vacancy, and to choose the best of these by examination. Thus the area of selection would have been increased fourfold, the principle of emulation would have been introduced with all its healthy influences, young 'writers' would have been chosen superior in qualifications to the mass, the Court would have had the honour of having anticipated modern reforms in the safe use of the competitive system, and the sweets of patronage would have been preserved. But the directors were blinded, their opposition succeeded, and Macaulay returned to the charge at the next Charter Act discussion in 1854, and swept away nomination and patronage altogether.

"The revolution would have stopped here but for the increased blindness of the directors, which soon after ended in the extinction of the Company as a governing power. For every monopoly of which they were deprived they clung all the more convulsively to the remainder, and so they perished without pity. In March, 1856, when they would not allow the most distinguished uncovenanted judge in the country to hold a covenanted appointment, Lord Dalhousie told them they must then increase the strength of the Bengal Civil Service from 500 to 600, if he was to be responsible for the good government of the empire. The empire was daily growing, the regiments in the country were drained of their best officers to fill civil appointments, new names were given to old offices that uncovenanted officials might fill them, and thus an absurd, because inflexible, rule was evaded. Had the Court then kept up such a supply of young civilians that there would have been enough to fill every covenanted office in India, the Government here would never have dreamt of draughting so many military men and uncovenanted

servants into high civil offices. Lord Dalhousie wanted 100 additional writers, and the Court, 'admitting that some increase has become manifestly necessary,' promised him just 50. But the mutinies came, massacre and death were busy; there was a rush to England at the close of 1858, and the service, the *minimum* strength of which should have been 600, was reduced to 478.

"By the close of 1859 so gigantic was the evil that, out of 116 covenanted civil appointments in the Punjab, only 43 were filled by *civilians*, and 71 by military or uncovenanted officials. In Oude there were only 10 civilians, while there were 26 military or uncovenanted officials in covenanted appointments. Mr. Edmonstone protested against any more North-West civilians being draughted to the non-regulation provinces. Not a man could be found in Bengal to fill five vacancies in Oude and the Punjab. Nagpore was short of officers. At last 6 young civilians were transferred from Bombay, the only place, as the law now stands, from which they could be taken to another Presidency than their own. Still the evil grew; the regulation provinces were not benefited; Mr. Grant was creating more subdivisions in Bengal, and at last Lord Canning was forced to stop furloughs and to make a proposal, in which Sir Bartle Frere concurred, but which shocked Mr. Beadon, 'that a certain number of appointments to the Civil Service be thrown open to competition by young officers of the Indian forces who are now in India.' Lord Canning would have made thirty such appointments. This would have opened the regulation provinces to the unemployed officers of the absorbed Indian army as effectually as the Punjab, Oude, and Pegu. Trained men, with some Indian experience, must be found to direct the administrative details of an empire which Lord Dalhousie had extended to its natural frontiers. Thus, because the Court of Directors rejected a modified competitive system which would have retained patronage in 1833, all patronage was taken from them in 1854. Because they would not give Lord Dalhousie 100 extra civilians in 1856, and reproved him for the crime of allowing Mr. Halliday to put an old uncovenanted judge in a civilian's seat, the Civil Service monopoly of office has been extinguished, and any Governor may appoint any man to any office under certain wise and just safeguards.

"The service thus exhausted is now being partially revived by throwing open 80 vacancies to competition in *each* of the years 1860, 1861, and 1862, instead of 40 as formerly. In 1856 the first set of *competitive civilians* landed in India. The forty men of 1859 are now being appointed as assistants in Bengal and the North-West. There is no official, from the Governor-General down to the district officer, who has not expressed his satisfaction with his competitive subordinates, with only a few exceptions. The superiority of the new men, as industrious, conscientious, and able officers, is as undoubted as the fear that they would be mere bookworms has proved unfounded. The competitor whose whole life has been spent in the schools and the hands of examiners pants for the day when he shall be invested with full powers, having past his last examination, with a degree of intensity which the mass of the Haileybury men, who merely sipped at knowledge, cannot feel.

"The reports of the Civil Service Commissioners show that it is not the first class university men, of brilliant parts and undoubted genius, who are tempted to come out to India, and whom disgust would soon convert into miserable failures, but youths of ordinary abilities, developed by untiring industry and high class training. If India was the empire of the middle classes when the Company was in its glory, it is still more so now that a new stratum of that society has been pierced, which is untainted by the family inter-mixtures that make men physically and intellectually effete.

"The following list of the professions of the *fathers of the successful candidates of 1859 and 1860* shows how few sons of Haileybury civilians now enter the service by competition, where they only not long ago would have been admitted to it by patronage:—

	1859.	1860.		1859.	1860.
Officer in the Queen's } Army.....	—	2	Farmer .....	1	1
Ditto in the Indian Army	1	—	Ironmonger .....	—	1
Ditto in the Navy.....	—	3	Land Agent .....	1	1
Ditto in the Militia .....	—	1	Merchant .....	1	7
Ditto in the French Army	—	1	Organist .....	—	1
Indian Civil Service .....	2	2	Printer .....	—	1
Home ditto .....	—	2	Professor in College .....	2	1
Colonial ditto .....	—	1	Schoolmaster.....	2	1
Church Clergyman .....	9	16	Steward .....	—	1
Wesleyan ditto .....	2	—	Undertaker .....	—	1
Presbyterian ditto .....	1	—	Wine Merchant.....	—	1
Law .....	2	3	Manufacturer .....	1	—
Medicine .....	4	10	Miller.....	1	—
Gentleman.....	6	11	Registrar of diocess .....	1	—
Banker .....	—	2	Secretary to public society	1	—
Butcher .....	—	1	Upholsterer .....	1	—
Civil Engineer .....	—	1	Tailor.....	1	—
Linendraper .....	—	1	Not named .....	—	5
Druggist .....	—	1			
			Total .....	40	80

"All these 120 youths came fresh from college, with the exception of ten, one of whom had been a barrister, one had been reading for the bar, one had been an engineer, one had been a militia lieutenant, two had been merchants' clerks, and four had been schoolmasters. Since this is the class which provides India with civilians, and since England is stocked with university men of the same calibre, we are not of those who anticipated that the opening of the service to *tried officers already in India* will materially diminish the number and value of candidates in England. Still less will this be the case under the new form which the Civil Service Bill assumed as finally passed by the Commons. Sir Charles Wood so far yielded to the representations of Mr. Vansittart and the existing Service as to state in the body of the Bill, that to the great bulk of the covenanted appointments, a list of which is given, *no outsider* shall be appointed who has not resided *seven years* in India, and has not passed an examination in the vernacular of the district and all the local and depart-

mental tests. Under this stringent rule jobbery becomes impossible, the admission of experienced uncovenanted officers will be very rare, and the full rights of competitive civilians are secured in a manner which may sometimes prove detrimental to the interests of the State. Thus, while the Bill seems to carry out Lord Canning's suggestion, it will probably shut the door against the Staff Corps, from which the service might otherwise have been inundated; for there are few officers of seven years' standing who will consent to pass the two professional examinations to which civilians are subjected. Still, with the Finance and Customs' Departments and the Military, Marine, and Public Works Secretariats open to the best men, with the second-class youth of the home universities pouring out to India, and with the Staff Corps monopolizing nearly all the non-regulation provinces, we may after a few years expect to find the Civil Service of India distinguished for vigour and intellect, freshness of thought, and zeal in the service of the public which no mere monopoly, however able, could long continue to display."

## BRITISH ASSOCIATION, 1861.

THIRTY-FIRST Meeting of the BRITISH ASSOCIATION for the Advancement of Science, held at MANCHESTER, 4th—11th September, 1861.

## Section (F).—Economic Science and Statistics.

President.—WILLIAM NEWMARCH, F.R.S.

Vice-Presidents.—William Farr, M.D., F.R.S., D.C.L.; James Heywood, F.R.S.; Lord Monteagle; Alderman Neild; Right Hon. Joseph Napier; Edwin Chadwick, C.B.; Daniel Noble, M.D.; Rev. Canon Richson, M.A.; Colonel Sykes, M.P., F.R.S.; W. N. Massey, M.P.; William Tite, M.P., F.R.S.

Secretaries.—Rev. J. E. T. Rogers, M.A., Tooke Professor; Edmund Macrory, M.A.; R. C. Christie, M.A.; David Chadwick, F.S.S., Assoc. Inst. C.E.

Committee.—Edmund Ashworth; Henry Ashworth; James Aspland, M.D.; Thomas Bazley, M.P.; C. H. Bracebridge; Samuel Brown; William Camps, M.D.; John Cheetham; Richard Fort; J. Franklyn; Henry Fawcett; Robertson Gladstone; S. Gregson, M.P.; The Lord Provost of Glasgow; James T. Hammack; Frederick W. Haddon; Right Hon. T. E. Headlam, M.P.; Edward Herford; Edwin Hill; William Langton; Rev. A. Hume, D.C.L.; The Mayor of Manchester; James M'Connel; James M'Clolland; Horace Mann; Rev. W. N. Molesworth, M.A.; Alfred Neild; Captain Palin; Edmund Potter; Arthur Moore, F.S.S.; Frederick Purdy; H. D. Pochin, F.C.S.; Malcolm Ross; John Shuttleworth; R. J. Spiers; Right Hon. Lord Stanley, M.P.; John Strang, LL.D.; N. M. Tartt; John Watts, Ph.D.; William Westgarth; Robert Wilkinson, L.C.P.; Thomas Wilson, M.A.; Cor. Van der Maeren.

The following Papers occupied the attention of the Section:—

Thursday, 5th September, 1861.

T. Bazley, M.P.—A Glance at the Cotton Trade.

Alderman Neild.—On the Price of Printing Cloth and Upland Cotton from 1812 to 1860.

John Strang, LL.D.—On the Altered Condition of the Embroidery Manufacture of Scotland and Ireland since 1857.

Henry Ashworth.—On the Connection of Improvements in Cotton Bleaching, with Improvements in the Condition of the Factory Population.

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Professor Rogers, M.A.—Prices in England, 1582-1620, and the effect of the American Discoveries upon them during that Period.

Friday, 6th September, 1861.

The President delivered the Opening Address (adjourned from yesterday).

David Chadwick.—On the Progress of Improvements in Manchester and Salford during the last Twenty Years.

J. Watts, Ph.D.—On Strikes.

Edmund Potter, F.R.S.—On Co-operation and its Tendencies.

Daniel Stone, F.C.S.—On the Rochdale Co-operative Societies.

Rev. W. R. Thorburn, M.A.—Co-operative Stores: their Bearing on Athenæums, &c.

Rev. W. N. Molesworth.—On the Progress of Co-operation at Rochdale.

Saturday, 7th September, 1861.

John Shuttleworth.—Some Account of the Manchester Gasworks.

Miss Twining.—On the Employment of Women in Workhouses.

Colonel Sykes, M.P., F.R.S.—Notes on the Progress and Prospects of the Trade of England with China since 1833.

Frederick Purdy.—On the Relative Pauperism in England, Scotland, and Ireland, 1851-1860.

William Westgarth.—The Commerce and Manufactures of the Colony of Victoria.

William Farr, M.D., D.C.L., F.R.S.—On the Recent Improvements in the Health of the British Army.

J. T. Danson.—On the Growth of the Human Body in Height and Weight in Males from 17 to 30 years of age.

Monday, 9th September, 1861.

William Newmarch, F.R.S.—On the Extent to which Sound Principles of Taxation are at present embodied in the Legislation of the United Kingdom.

Professor J. E. T. Rogers, M.A.—On the Definition and Incidence of Taxation.

C. E. Macqueen.—The True Principles of Taxation.

W. Clarke, M.D.—On a Revision of National Taxation.

Rev. Canon Richson, M.A.—The Income Tax.

Richard Valpy.—The Commercial Relations between England and France.



*H. J. Ker Porter.*—To present Engravings of Farm Labourers' Cottages, with a Specification, and a few Remarks in continuation of a Paper read at Oxford in 1860.

*Mrs. Fison.*—On Sanitary Improvements.

*Rev. W. Caine.*—Ten Years' Statistics of the Mortality amongst the Orphan Children taken under the care of the Dublin Protestant Orphan Societies.

*Charles Thompson.*—On some Exceptional Articles of Commerce and Undesirable Sources of Revenue.

*Tuesday, 10th September, 1861.*

*James Heywood, F.R.S.*—On the Inspection of Endowed Educational Institutions.

*Captain Donnelly, R.E.*—On the Government System of Examinations in Science.

*J. T. Hammack, F.S.S.*—On the General Results of the Census of the United Kingdom in 1861.

*John Strang, LL.D.*—Comparative Progress of the English and Scottish Population, as shown by the Census of 1861.

*T. A. Welton.*—An Examination of the Increase and Decrease of Population in England and Wales, 1851-61.

*R. H. Bakewell, M.D., M.R.C.S.*—On the Influence of Density of Population on the Fecundity of Marriages in England.

*Rev. A. Hume, D.C.L.*—On the Condition of National Schools in Liverpool, as compared with the Population, 1861.

*Henry Fawcett, M.A.*—On the Economical Effects of the recent Gold Discoveries.

*Professor J. E. T. Rogers, M.A.*—Can Patents be Defended on Economical Grounds?

*Henry Ashworth.*—On Capital Punishments and Crime.

MISCELLANEA.

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*I.—Bank of France, October, 1861, its Position and Policy.*

The following is the Abstract given by the *Times* of the 25th October, (1861), of an elaborate article in the *Journal des Débats*.

“The position of the Bank of France is discussed by the *Débats* in an article of considerable length. Although the deficiency of the harvest is not considered by the writer as the sole cause of the drain of specie which has been going on for some time, and has forced the Bank to raise its interest and have recourse to other exceptional measures, yet a necessity exists to pay in gold or silver for the 4,125,000 or 5,155,000 quarters of wheat which are required for the year's food. The *Débats* is of opinion that means may be devised to lessen the force of the outward current, and cites the precedent of 1847, when the Russian Government, it may be remembered, purchased from the Bank of France 50 millions of rente, and by so doing relieved that establishment rapidly from its temporary embarrassment.

“Among the economic crises of the last 30 years,” says the writer, “it is that which presents the greatest resemblance to the present one. It was then, as now, to the purchasers of corn, necessitated by an insufficient harvest, that the drain of specie was specially ascribed. Of 8,200,000*l.*, of which the metallic reserve of the Bank of France consisted on the 1st of October, 1846, there only remained on the 14th of January, 1847, 3,440,000*l.*, of which 1,120,000*l.* were in the branch banks. At London, 1,000,000*l.* of gold were purchased at a sacrifice of 32,008*l.* for exchange, interest, and expenses. With some difference in the manner of proceeding, the operation was the same which the Bank of France made a few days back through some large banking firms of Paris. In 1847 the operation produced a good effect, the metallic reserve on the 16th of March having risen to 4,400,000*l.* It was at that moment that the Court of Russia proposed to the Bank of France to purchase from it, at the rate of the day, 2,000,000*l.* of its Five and Three per Cents. The proposition, after a little hesitation, was accepted. The Bank gave to the Imperial treasury of Russia, 80,000*l.* of Five per Cents., at 4*l.* 18*s.*, and 5,680*l.* of Threes, at 3*l.* 4*s.*, forming together a capital of about 2,000,000*l.* The operation, while permitting the saving of the greater part of the specie which

would have had to be sent into Russia to pay for the purchase of wheat, had an excellent effect on the metallic reserve of the Bank. The latter was slowly recomposed, and attained in August the sum of 5,960,000*l.*; and on the 25th of December, 1857, it was 6,810,000*l.*, a sum considered perfectly sufficient at that epoch, when the operations of the Bank were far from having acquired the immense development which they owe to the increase of business for the last ten years. The alienation of 2,000,000*l.* of public funds deprived the shareholders at one blow of an assured income of 85,680*l.* The Bank, nevertheless, was able to distribute to them a dividend of 7*l.* 1*s.* 6*d.*, which was the largest up to that time. Moreover, before the end of the same year, 1847, the Bank had reconstituted the greater part of its rentes on more advantageous terms (Three per Cents. at 3*l.* -s. 2*d.* and 3*l.*) than those on which it sold them.

“The moment could not be better chosen. With the fall in silver, probably only temporary, the Russian Government would obtain ingots on better conditions than those which it had to accept at the beginning of the year, but which are not likely soon to be made to it again; moreover, it would not have to pay in gold this lower price, as it did for the 1,240,000*l.* of which the coining is now being brought to a close; it could give France, in return for her silver, merchandise which is at this moment much more necessary than gold—it could pay in wheat. The last harvest in Russia was more than satisfactory, in spite of the perturbation which the emancipation of the serfs must have temporarily caused in agriculture. Of the 4,125,000 to 5,155,000 quarters of wheat which France will have to demand abroad, Russia can supply the third, perhaps even the half. So much the better for her and for France. But here is the reverse of the medal. In purchasing wheat from Russian producers, France must pay for it in cash, in great part even before having received it; and that is the cause of the severe and sudden drain of specie from France. On the other hand, the 4,000,000*l.*, for example, which France would send to Russia in good pieces of 4*s.* 2*d.* or in ingots would disappear from that country in the same way, and for the same reasons, as for some years past. The operation would result in a great embarrassment for French circulation, without any appreciable advantage for Russian circulation. The Government of St. Petersburg may, however, remedy that inconvenience with facility and safety. The 4,000,000*l.* in specie (to continue to speak in round figures) which the insufficiency of the French harvest requires to be sent to Russia, are for her (on account of her serious need of money), so to speak, a happy accident.”

“But a similar operation could not be repeated at present, the writer declares; the financial situation of Russia, which has become greatly deteriorated since 1847, not permitting her to sink a large capital in foreign funds. But a different arrangement could be entered on, the *Débats* thinks, and with advantage to both parties. At the beginning of the present year the Bank of France, after having effected a similar operation in London, asked the Russian Government to cede to it about 1,240,000*l.* of gold for so much silver, and the Government of St. Petersburg at once consented, silver then appearing of more value. But the Bank soon after discovered that the comparative value of the two metals had changed, and that there was no longer any good reason for refusing silver coin to the public, all premium on it having ceased to exist. The Bank then discontinued paying 4*s.* 2*d.* pieces to Russia, and simply sent silver ingots. But, although the operation was sterile for the Bank, it turned out of great utility to Russia, who had the whole mass of silver delivered to the Mints of Paris and Strasbourg, and there transformed into Russian pieces, with an intrinsic value of 15 per cent. below the nominal one, the object being to prevent in that manner the practices of exportation or of melting down, which had previously drawn away from Russia, as from Austria, all her silver money. The whole sum will amount nominally to somewhat over 1,320,000*l.*; but that sum is totally inadequate for a population of 62,000,000 inhabitants, and having a paper currency of 700,000,000 roubles. Why should not Russia, the *Débats* asks, continue that operation on a still larger scale? Its argument runs thus:—

“The Government of St. Petersburg might come to an understanding with the producers of Russian wheat to substitute itself to them as the creditor of France; it might demand from them credits spread over a year, or pay them in notes of the State Bank, or in new 4 per cent. bills. In their place it might receive from the Bank of France the 4,000,000*l.* in specie which France owes for Russian wheat; but it would give to that silver the same destination as the 1,240,000*l.* of silver which it recently exchanged for gold. By making efforts, which, however, they considered somewhat excessive, the Mints of Paris and Strasbourg were able, from July to October, to deliver per month 320,000*l.* in Russian small coin; the coining of the new 4,000,000*l.* would, therefore, require a year. The new money would thus arrive by degrees at its destination, to replace in the centre of the empire that which little by little would spread towards the circumference, so that the circulation of all European Russia would, in a year from this time, be provided with the specie of which it is now in complete want. On its part, the Bank of France, which would supply ingots to the French Mints, in proportion to their progress in the manufacture, would not be inconvenienced by an issue of 4,000,000*l.* spread over an entire year. The issue would also be insensible if it were made in six months only, supposing that the coining could and should be forced so as to supply monthly double the quantity of specie produced in the coining of the first 1,240,000*l.* The operation proposed would, it seems to us, sensibly lighten for France the burden of the crisis, while producing great advantages for Russia. Will that suffice to recommend it to the attention of those whom it may concern?”

## II.—American Cotton Crops and Prices, 1857-61.

“THE annual statement of the United States' crop, made up by the (New York) *Shipping and Commercial List*, which has been delayed in consequence of the internal disruption, is as follows:—The total crop for the year is 1,013,684 bales less than for the previous year, and 195,395 bales less than 1859, but with these two exceptions it is larger than any former crop on record.

“We annex our usual summary, specifying the points where received, and showing in a general way the crops of the several States, although the cotton made in one State is frequently shipped through the ports of another. During the last year 393,499 bales were received at Memphis, Nashville, and Columbus; part of these were sent to New Orleans, part manufactured on the Ohio, and the remainder sent northward to market:—

Receipts of Cotton at the Ports of the United States.

	1860-61.	1859-60.	1858-59.	1857-58.
New Orleans .....	1,755,599	2,139,425	1,669,274	1,576,409
Mobile .....	546,794	843,012	704,406	522,364
Florida .....	127,172	192,724	173,484	122,351
Texas .....	144,747	252,424	192,062	145,286
Georgia .....	477,584	525,219	475,788	282,973
South Carolina .....	336,339	510,109	480,653	406,251
North .....	46,295	41,194	37,482	23,999
Virginia, &c. ....	221,556	165,663	118,332	34,329
Total crop ...barrels	3,656,086	4,669,770	3,851,481	3,113,962

“The total export to foreign ports for the year just closed were 3,127,568 bales, as shown in the annexed table:—

*Total Exports of Cotton from the Ports of the United States to Foreign Ports.*

	1860-61.	1859-60.	1858-59.	1857-58.
To Great Britain .....	2,175,225	2,669,432	2,019,252	1,809,966
„ France .....	578,063	589,587	460,696	384,002
„ North of Europe ...	216,250	295,072	330,012	215,145
„ other foreign ports	158,030	220,082	221,413	181,342
Total ..... bales	3,127,568	3,774,173	3,021,102	2,590,455

“The bulk of the decrease, as compared with last year, has been in the shipments to Great Britain.

“The following will show the stock of cotton (in bales) on hand at the different ports of the United States on the 1st September:—

*Stock of Cotton on Hand in the United States.*

	1861.	1860.	1859.	1858.
New Orleans .....	10,118	7,393	26,022	30,230
Mobile .....	2,481	41,682	20,106	10,495
Florida .....	7,860	864	236	80
Texas .....	452	3,168	2,655	1,899
Savannah and Augusta .....	9,093	9,559	18,383	2,585
Charleston .....	2,899	8,897	17,592	11,715
Virginia, &c. ....	2,000	4,509	375	600
New York .....	37,229	64,891	43,452	25,000
Other Northern ports .....	11,055	20,404	20,416	20,322
Total ..... bales	83,187	227,708	149,237	102,926

“The consumption of the United States is reached by deducting the exports and stock on hand from the known receipts to show the consumption in the Northern States, and by estimating the consumption in the Southern States. The following will show the total of the Crop and the estimated consumption for the last thirty-two years:—

*Total Crop of Cotton, and the Consumption in the United States.*

[Unit 000's omitted, thus 126 = 126,000.]

Year.	Domestic Consumption.	Total Crop.	Year.	Domestic Consumption.	Total Crop.
1829-30 .....	126,	976,	1845-46 .....	422,	2,100,
'30-31 .....	182,	1,038,	'46-47 .....	427,	1,778,
'31-32 .....	173,	987,	'47-48 .....	616,	2,347,
'32-33 .....	194,	1,070,	'48-49 .....	642,	2,728,
'33-34 .....	196,	1,205,	'49-50 .....	613,	2,096,
'34-35 .....	216,	1,254,	'50-51 .....	485,	2,355,
'35-36 .....	236,	1,360,	'51-52 .....	699,	3,015,
'36-37 .....	222,	1,422,	'52-53 .....	803,	3,262,
'37-38 .....	246,	1,801,	'53-54 .....	737,	2,930,
'38-39 .....	276,	1,260,	'54-55 .....	706,	3,847,
'39-40 .....	295,	2,177,	'55-56 .....	770,	3,527,
'40-41 .....	297,	1,634,	'56-57 .....	819,	2,939,
'41-42 .....	267,	1,683,	'57-58 .....	595,	3,113,
'42-43 .....	325,	2,378,	'58-59 .....	927,	3,851,
'43-44 .....	346,	2,030,	'59-60 .....	972,	4,669,
'44-45 .....	389,	2,394,	'60-61 .....	843,	3,656,

“The consumption of the South, 174,390 bales (including that burnt at the ports), is to be added to the crop receipts to make the total production. If this be done, and we add stocks in interior towns, and deduct the portion of the new crop received before 1st September (300 bales), we shall make the total growth of cotton the last year in the United States 3,866,000 bales.

“We bring forward a description of the course of Prices at New York. Beginning at 15 $\frac{3}{4}$ c. for middling upland, September 1, 1857, the market through the fall months (the season of financial revulsion) was mostly nominal, and on January 1, 1858, touched 8 $\frac{3}{4}$ , a fall of nearly 50 per cent. It then almost immediately recovered, running along up to 12, and ranging from 11 $\frac{3}{4}$  to 12 $\frac{3}{4}$ , mostly 12 $\frac{1}{4}$  to 12 $\frac{3}{4}$ , during the remainder of that commercial year.

“On the 1st of September, 1858, the market opened at 12 $\frac{3}{4}$ , touched 13 $\frac{1}{2}$  before the close of the month, fell to 11 $\frac{1}{2}$  in November, recovered to 12, where it remained during most of the winter, and then ranged from 10 $\frac{7}{8}$  to 12 $\frac{3}{4}$  for the remainder of that season, closing at 11 $\frac{7}{8}$  the 1st of September, 1859.

“Beginning at 11 $\frac{7}{8}$  the 1st of September, 1859, the market gradually dropped to 11c. in December, and opened the year 1860 at that rate. It fluctuated very slightly, ranging from 11 to 11 $\frac{3}{8}$ , until the close of June, when it touched 10 $\frac{7}{8}$  and fluctuated between 10 $\frac{1}{2}$  and 10 $\frac{3}{4}$  for the remainder of the season, closing at 10 $\frac{3}{4}$  on September 1, 1860.

“Beginning at 10 $\frac{3}{4}$  on September 1, 1860, it touched 11 a few days after, then fell back to 10 $\frac{3}{4}$ , if not below it; but soon after rallied, and before the close of October, reached 11 $\frac{3}{4}$ . About the middle of November it again dropped, and by the first week in December touched 10c. That was the lowest point of the season, and if we except a slight reaction in February, 1861, it gained steadily throughout the year, closing on the 1st of September at or about 22c., which is the highest point it ever reached in ‘our times.’”

III.—Censuses of the United Kingdom, 1801-61.

The following abstract and summary of the Seven Censuses, 1801-61, will be found useful.

Census.	England and Wales.					
	Males.		Females.		TOTAL PERSONS.	
	Mns.	Incr. p. ct.	Mns.	Incr. p. ct.	Mns.	Incr. p. ct.
1801.....	4,25	—	4,63	—	8,89	—
'11.....	4,87	14	5,29	14	10,16	14
'21.....	5,85	20	6,14	16	12,00	18
'31.....	6,77	16	7,12	16	13,89	16
1841.....	7,77	14	8,13	14	15,91	14
'51.....	8,78	13	9,14	13	17,92	13
'61.....	9,75	11	10,30	12	20,06	12



Census.	Scotland.					
	Males.	—	Females.	—	TOTAL PERSONS.	—
	Mlms.	Incr. p. ct.	Mlms.	Incr. p. ct.	Mlms.	Incr. p. ct.
1801.....	,73	—	,86	—	1,60	—
'11.....	,82	12	,97	12	1,80	12
'21.....	,98	19	1,10	13	2,09	16
'31.....	1,11	13	1,24	13	2,36	13
1841.....	1,24	11	1,37	10	2,62	11
'51.....	1,37	11	1,51	10	2,88	10
'61.....	1,44	5	1,61	7	3,06	6

Census.	Ireland.					
	Males.	—	Females.	—	TOTAL PERSONS.	—
	Mlms.	Incr. p. ct.	Mlms.	Incr. p. ct.	Mlms.	Incr. p. ct.
1801.....	*—	—	—	—	—	—
'11.....	—	—	—	—	—	—
'21.....	3,34	—	3,45	—	6,80	—
'31.....	3,79	13	3,97	15	7,76	14
1841.....	4,01	6 Decr.	4,15	5 Decr.	8,17	5 Decr.
'51.....	3,19	20	3,36	19	6,55	20
'61.....	2,80	12	2,95	12	5,76	12

\* First Census of Ireland taken in 1821.

#### IV.—Extent and Value of the Trade between England and France, 1674.

THE following curious account and estimate is copied, by permission, from a quarto broadside in the possession of James Anderton, Esq., so well and favourably known as the Manager of the London Office of the West of England Insurance Company.

“ London, 29 Nov. 1674.

“ A scheme of the trade as it is at present carried on between *England and France* in the commodities of the native product and manufacture of each country, calculated as exactly as possible, in obedience to the command of the Right Honourable the Lords Commissioners for the Treaty of Commerce with *France*, and humbly tendered to their Lordships.

Quantities.	Commodities Exported from England into France.	Amount of Particulars.	Total Amount of Exports.
	<i>Woollen and Silk Manufactures.</i>		
		£ s. d.	£ s. d.
354	Pieces of Norwich stuff ..... at 2 - - per piece	708 - -	
5,564	„ serge and perpetuanas „ 2 10 - „	13,910 - -	
2,238	„ single bayes ..... „ 2 10 - „	5,764 - -	
166	Small minikin bayes ..... „ 6 - -	996 - -	
466	„ double bayes ..... „ 4 - -	1,864 - -	
2,140	Dozen men's worsted hose ..... „ 2 - -	4,280 - -	
832	„ „ ..... „ 1 5 -	1,040 - -	
1,170	„ of children's hose ..... „ - 8 -	468 - -	
400	Yards of flannel ..... „ - 1 -	20 - -	
1,200	⊕ goods of cotton ..... „ 9 - -	10,800 - -	
112	Long cloths ..... „ 10 - - per cl.	1,120 - -	
42	Short „ ..... „ 8 - - „	336 - -	
829	Spanish cloths ..... „ 15 - - „	12,435 - -	
97	Double northern dozens ..... „ 5 - -	485 - -	
69	Single „ ..... „ 2 - -	138 - -	
13	Devon dozens ..... „ 2 - -	26 - -	
173	Cloth rashes ..... „ 5 - -	865 - -	
6	Pennystous ..... „ 3 - -	18 - -	
3,585	Kersies ..... „ 1 15 -	6,273 - -	
960	lb. English wrought silk ..... „ 2 - -	1,920 - -	
		63,466 - -	
	This is the full of what was exported, according to the Custom House books in the Port of London, from Michaelmas 1668 to Michaelmas 1669, and for all England we calculate one-third part more. Amounts in all to .....	—	84,621 6 8
	Since 1669 the exports, as we conceive, are diminished, and not increased.		
2,500	Fodder of lead ..... at 12 - - per fodd.	30,000 - -	
6,000	Hundred of tin ..... „ 4 - - per cwt.	24,000 - -	
100	Tuns of allom ..... „ 24 - - per tun.	2,400 - -	
	Calves skins and leather.....	10,000 - -	
	Several sorts of skins, glew, lanthorn-leaves, butter, copperas, old shoes, sea-coals, tobacco-pipes, gloves, red-lead, linseed, candles, iron ware, haberdashery ware, and other trivial commodities, which may amount per annum to.....	20,000 - -	
			86,400 - -
			171,021 6 8

Quantities.	Commodities Exported into England from France.	Amount of Particulars.	Total Amount of Imports.
	<i>Linnen and Silk Manufactures.</i>		
	£ s. d.	£ s. d.	£ s. d.
60,000	Pieces of Lockram and Dowlas... at 6 - - per piece	360,000 - -	
17,000	Hundred of Vitry and Noyals } canvas ..... „ 6 - - per hund.	102,000 - -	
5,000	Hundred of Normandy canvas... „ 7 - - „	35,000 - -	
2,500	Pieces of quintins ..... „ - 10 - per piece	1,250 - -	
1,500	„ dyed linnen ..... „ 1 - - „	1,500 - -	
7,604	Yards of diaper, tabling ..... „ - 2 - -	760 - -	
33,896	„ napkining ..... „ - 1 - -	1,694 16 -	
1,376	Dozen of buckrams ..... „ 2 10 - -	3,440 - -	
1,200	Bolts of poldavies ..... „ - 15 - -	900 - -	
2,820	Pair of old sheets ..... „ - 5 - -	705 - -	
150,000	Pound of wrought silk ..... „ 2 - -	300,000 - -	
	<i>Note.</i> —That this year, 1674, there hath been received at the Port of Dover only as we are informed, 15,000 <i>l.</i> for Custom of wrought silk: so that considering what may be conveyed away privately, and that great quantities are worth from 3 <i>l.</i> to 4 <i>l.</i> the pound, we believe the wrought silk may amount to much more in value than what is above.		807,250 4 -
11,000	Tuns of French wine, one year with another ..... } cost 12 10 - per tun	137,500 - -	
4,000	Tuns of brandy, one year with another ..... } at 20 - - „	80,000 - -	
			217,500 - -
160,000	Reams of paper ..... „ - 5 - per rm.	40,000 - -	
1,500	Pcs. of pruens ..... „ 4 - -	6,000 - -	
400	Hundred of feathers ..... „ 5 - - per hund.	2,000 - -	
5,000	„ kidskins ..... „ 3 - -	15,000 - -	
3,000	Weigh of salt ..... „ 2 - - per wgh.	6,000 - -	
6,000	Hundred of rozin ..... „ - 8 - per hund.	2,400 - -	
	Vinegar, rape, cyder, wadd, cork, oakum, soap, turpentine, capers, olives, brignoles, parchment, window-glass, teasels, corn, fanns, basket rods, box wood, and cremor tartar, which may amount, <i>per annum</i> , at least to .....	40,000 - -	
	<i>Besides all manner of toys for women and children, fanns, jessamin gloves, laces, point-laces, rich embroidered garments, and rich embroidered beds, and other vestments, which are of an incredible value.</i>		111,400 - -
			1,136,150 4 -

“ By the account above, your Lordships may perceive that the linnen and silk manufactures only imported from *France* amount to upwards of eight hundred thousand pounds, and the manufactures of wool and silk exported from *England* thither do not amount to eighty-five thousand pounds. As also all other commodities of the product and manufacture of *England* exported into *France* do not amount to ninety thousand pounds more: whereas the wines, brandies, and other commodities of the product and manufacture of *France* imported into *England* amount to three hundred and twenty thousand pounds, besides an incredible value of toys, rich apparel, point-lace, &c. So that it is apparent that the exports of our native commodities and manufactures to *France* are less in value by at least one million of pounds sterling than the native commodities and manufactures of *France* which we receive from thence. And if it please your Lordships to reflect thereupon,

your Lordships will easily discern the great prejudice the *English* nation hath sustained, and the great advantage the *French* have, and do daily make, by holding this treaty in suspense; this nation being upon the matter excluded trade thither, while in the meantime the *French* enjoy all and as great advantages as they can reasonably expect by any treaty.

“ PATIENCE WARD,           GEORGE TORRIANO,           JOHN DUBOIS,  
“ THOMAS PAPILLON,       JOHN HOUBLON,           BENJ. GODFREY,  
“ JAMES HOUBLON,         JOHN HOGGHE,           EDM. HARRISON,  
“ WILLIAM BELLAMY,       JOHN MERVIN,           BENJ. DELAUNE.”  
“ MICHAEL GODFREY,       PETER PARAVICINE,

#### V.—The Coal Fields and Coal Trade of India.

We obtain the following from a recent number of the *Friend of India*.

“ When reviewing the operations of the geological survey, some two years ago, we asked if it were not possible to collect mining statistics in India, similar to Mr. Hunt's valuable records published from time to time in England. It unfortunately happens that India is the despair of the statist. Figures collected in India, unless only by Europeans and relating to Europeans, are valueless except for very general purposes. Any attempt to obtain statistical information from a *native*, if conducted by a European officer, is at once regarded as a preliminary to taxation of some sort, and is met by a refusal or by deceit; while, if made by native agency, it becomes a source of gross oppression, and the result is ludicrously inaccurate. What is called the census of India, for instance, which fixes the population of the British territory at 132,000,000, was taken very much in this way:—The police were called on for a return of the number of houses and huts in each town, and the whole was multiplied by five to represent the population.

“ Notwithstanding the difficulty, however, Mr. Oldham, the able and zealous director of the Geological Survey of India, has collected and published the first of a series of *mineral statistics*. The returns refer to *coal*, and will be followed, we trust, by similar information regarding iron, copper, lime, building stone, slate, gold dust, and precious stones. Mr. Oldham does not pretend that his first attempt is free from errors. But he did his best, going from pit to pit, cross-questioning the superintendents and making inquiries of the proprietors and agents of the several companies. He has succeeded in giving us figures for three years from the 1st of October, 1857, to the same date in 1860, all accounts being made up to this period, known as the ‘coal year,’ from the circumstance that before the construction of the railway all the Raneegunge coal was sent down the river Damooda, so long as its waters, swollen by the rains, permitted the transit.

“ The result is not a cheering one for India. Over the vast peninsula, which has an area of 800,000 square miles, coal is found only in the valley of the Ganges and neighbouring hills, in Rewah to the south of the Soane, in the Nerbudda valley, and in the Sylhet hills on the far north-east. There is *no workable coal elsewhere in the North-Western Provinces*, none in Oude, the Punjab, Scinde, Bombay, or Madras. This fact is the less cheering because *iron and lime* are generally associated with coal in the same formation, and because India, except in the east, is comparatively destitute of these great elements and necessities of modern civilization. It is no great consolation to say that where coal exists it is abundant, that Beerbhoom, for instance, is one mass of mineral wealth. India is as large as Europe, and the coal of Raneegunge or lime of Sylhet is more useless to the cotton mills and building firms of Bombay or Madras than that of Newcastle is to Moscow. Coal is most bulky for carriage, and railway carriage will always be so expensive that it will probably be cheaper for Bombay to use good English than indifferent

Bengal or even Nerbudda coal. The following abstract contains the result of Mr. Oldham's inquiries:—

Districts.	1858.	1859.	1860.
Raneegunge Coalfield....	5,917,000	8,919,600	8,559,097
Rajmahal Hills .....	219,000	843,000	1,222,860
Kurhbari .....	4,000	108,182	275,256
Palamow .....	—	28,648	30,900
Sylhet Hills.....	22,319	32,498	—
Total in maunds....	6,162,319	9,961,928	10,088,113
Or in tons .....	226,140	365,575	370,206

These figures show the healthiness of the trade, which, notwithstanding the local fluctuations, has steadily progressed. In the Raneegunge coalfield, which is now tapped by the East Indian Railway, and which will shortly be pierced by two branches, there were last year 49 collieries with 27 steam-engines at work. This is the result of little more than twenty years' operations.

"The number of Collieries in the United Kingdom is 2,654, and the out-turn of coal is 72,000,000 tons annually, or 200 times that of India. Our readers will form a better estimate of the coal-producing power of India if we place in order, with the assistance of Mr. Hunt's mining records, the out-turn of all the coal countries in the world in 1857. We regret that Mr. Oldham has not given the proportion of the coal area to that of the whole country:—

Countries.	Proportion of Whole Area.	Production in Tons.
British Islands .....	1—10	66,000,000
Belgium.....	1—22	5,700,000
France .....	1—100	4,500,000
United States .....	2—9	4,500,000
Prussia .....	1—90	3,500,000
British North America....	1—20	900,000
British India.....	—	370,206
Bohemia .....	1—20	300,000
Spain .....	1—52	250,000

Of the nine countries India is thus already seventh on the list.

"What a future for America is involved in the fact that nearly a fourth of her whole area, so far as investigated, is covered with coal! India raises a third more than Spain, and about the same amount as Warwickshire. The consumption of coal in India and by vessels leaving its ports we may estimate at 700,000 tons annually, the amount imported in 1857 from England being 329,157 tons. Reckoning the price of Indian coal in Calcutta at 5 annas a maund, or 17s. a ton, and English coal at the same rate (though it is far higher), we have more than 500,000*l.* sterling spent on coal every year in India. As the trade and manufactures of India increase, and as machinery comes to be more and more largely introduced, indigenous coal will become more important. The fact that the supply is in certain districts inexhaustible, and that the demand is annually increasing, is one full of hope for the coal companies and proprietors who already occupy or, like the Bengal Coal Company, monopolize the field. It is possible that the Nerbudda

fields, worked by the Company just established, may supply Bombay and the southern portions of the North-Western Provinces on the completion of the railway. But Oude, the Punjab, and Madras, must still look to their forests, which, on both sanitary and commercial grounds, it becomes daily of more importance to utilize and renew."

#### VI.—American Census of 1860.

A RECENT number of the *New York Times* gives the following abstract:—

"As the exact and official returns of the Census are being made public, we behold more clearly the precise march and direction of the population which has been filling up, during the last ten years, the unoccupied territory of the Union. Its grand and main course is *westward*, with some currents to the north-west and some to the south-west. The flood of population over some of our New States in the far West has probably never been equalled in the history of emigration, both in the character of the emigrants and in the number placed upon new soil, where before were the animals of the prairie and the forest and the roving Indian.

"Minnesota, for instance, increases from 6,077 inhabitants in 1850 to 162,022 in 1860, or at a rate of increase of over 2,500 per cent.; Oregon, from 13,294 to 52,464, or at the rate of 294 per cent.; Iowa, from 192,214 to 674,948, or at 251.22 per cent.; Texas, from 212,592 to 602,432, or 183.37 per cent.; Wisconsin, from 305,391 to 775,873, or 154.06 per cent. Arkansas increases 107 per cent., and Illinois over 100 per cent.

"The average rate of the growth of population in all the States during the last decade is 35.02 per cent. There are nineteen States below this average, the lowest in order being Vermont, 0.32 per cent.; then New Hampshire, 2.55 per cent.; and next South Carolina, 5.28; Maine following with 7.73, and Tennessee with 11.63, and once powerful Virginia with only 12.27, while North Carolina shows only 14.23.

"There are eleven States counting 19,528,555 inhabitants, or an average of more than one million and a-half each—namely, Illinois, Indiana, Ohio, Pennsylvania, Massachusetts, New York, Tennessee, Missouri, Virginia, Kentucky, and Georgia. In territories the greatest advance is, of course, in Utah, or 254.07 per cent. In New Mexico it reaches 51.98.

"The black current must always be the important one to the statistician of this Continent. The Census reveals a steady stream of negroes from the seaboard towards the south-west. Virginia retains her old pre-eminence as the breeder of slaves for market, in which noble occupation she is apparently closely followed by South Carolina, while the States whither this disgusting traffic tends are Arkansas, Mississippi, and especially Texas. The average increase of the slaves is moderately large, or 23.42 per cent. There is a loss but in two States, Delaware (of 21.48 per cent.) and Maryland (3.52). The increase in Virginia is only 3.88 per cent., and in South Carolina 5.28—this small advance evidently resulting from exportation. Kentucky, too, shows an increase of but 4.87 per cent. in the last decade, which gives a most gratifying prospect of the destiny of the system in Kentucky, as it is believed no very important numbers have been exported during the last ten years from that State. North Carolina only exhibits an advance of 14.74, and Tennessee of 15.17 per cent. Missouri presents a larger increase than was expected—namely, 31.51. The great increase is in Texas, where it reaches over 210 per cent. (210.66); in Arkansas it is 135.89, and in Florida, 57.09; in Mississippi, 40.93.

"In two States only are the slaves more numerous than the whites—in South Carolina, where they number 402,541, against 291,623 of the white inhabitants, and in Mississippi, being 436,696 to 353,969 whites. Their largest number in any one State is in Virginia (490,887), and the next in Georgia (462,232). In the



territories there are ten slaves enumerated in Nebraska, twenty-four in New Mexico, and twenty-nine in Utah. The district of Columbia shows a loss of slaves of 13·72 per cent.

"Among the *free-coloured* population the increase is very small through the Union—only 10·68 per cent. Their largest numbers are to be found, as usual, in Virginia, Maryland, and Pennsylvania. Little valuable in a statistical point of view is to be extracted from the tables of this population, as the diminution from banishment or emigration cannot be distinguished from that arising from natural and regular causes. The theory sustained recently by an able statistician in Washington (Mr. Weston), that the free negro inevitably diminishes on this Continent, is not yet sufficiently confirmed by facts to be admitted as a satisfactory scientific hypothesis. The race undoubtedly dies out in climates not adapted to it—as, for instance, in the Northern States; but whether it decays in freedom in the middle or southern latitudes does not yet fully appear. In many of the Southern and Western States there are laws expelling the free negroes, and their decrease observed in those States during the last decade may be due to these extraneous causes. Their largest increase in a Slave State is in Georgia (18·01 per cent.); in Alabama, 16·11; in Maryland, 12·04; the greatest decrease in Arkansas, 77·47. Greatest increase in a Free State, in Minnesota, 487·18 per cent.; in New York they lose 2·18 per cent. It will probably be many decades before we shall show such a rapid growth of numbers as in the last. The next Census will no doubt reveal new currents and new directions in our population. Instead of streams from east to west, we may then have many from north to south, and new results to chronicle in regard to the movements or decrease of the black population.

#### VII.—*Strike in the London Building Trade.—Proposed Compromise.*

THE following letter appeared in the *Times* of the 14th September (1861), written, it is believed by a person well qualified to suggest a fair compromise. It attracted a good deal of attention, and may ultimately be adopted.

"The Strike in the Building Trade has now lasted six months, and the energy of the combatants yet continues unabated; indeed, the warfare threatens to extend itself from the town to the country. Nevertheless, I cannot help thinking peace might be restored if both parties could calmly re-consider the position of affairs.

"The strike is not about wages, but about the system of work. The *hour system* was a change instituted by the masters for two reasons—

- "1. To secure a more uniform measure of labour.
- "2. To put an end to the nine hours' agitation.

"It was resisted by the men on two grounds—

- "1. That it would tend to make the hours of labour longer and irregular.
- "2. That it would deprive the operatives of certain privileges, as overtime, &c.

"Now a day's work, (price 5s. 6d.) was certainly a variable standard. It meant ten hours' labour on five days in the week, eight and a-half hours on Saturday, and in the winter time often only nine. This standard, however, did not give to the operative an excessive amount of wages, for, if the calculation of wages was made for all the year round, he would receive rather less than his share on the long days, and rather more on the short days. But the standard was inconvenient to masters in calculating their contracts, and unfair to individual customers who happened to require repairs to be done on the short days. On the other hand, an hour means sixty minutes every day in the year. It ought, therefore, without doubt, to be adopted as the measure of labour. The men, it is stated, make no objection to this.

"The agitation for a *nine hours' day* has been dropped by the men, who, instead, demand a half-holiday on Saturday. The masters who adopt the hour system have themselves introduced a half-holiday into their establishments. There is some little difference between the length of the half-holiday as demanded, and the half-holiday as granted, one beginning an hour before the other; but either side would do well in giving way upon so slight a point, rather than, for the sake of it, prolong this interecine contest. The nine hours' question, then, has been dropped, and cannot be renewed unless the conditions of the market change; why, therefore, shall it not remain quiet where it lies? It would be unreasonable for the masters—contrary to all political economy, which makes all contracts essentially to deal with the present—to attempt to prescribe for a future which may never come. Men, too, may remember that if the market will ever bear the change, a nine hours' day, though made more difficult of attainment under the hour system, is by no means incompatible with it.

"The masters distinctly deny that they desire to make the hours of labour longer or irregular, or even to change them. Then let them remain as they have been.

"The masters also repudiate the intention of depriving the men of any privileges. How needless, therefore—how foolish—to enter into a discussion with a view exactly to define those privileges, about which there is evidently some question. Let the privileges be as before. Overtime will then be paid where it was paid formerly, and at the same rate as formerly; where it was not paid, it will not be paid now.

"The terms, then, which I should propose for the compromise are as follows:—

- "1. Payment by the hour, at 7d. per hour.
- "2. The regular hours of labour as before, from 6 a.m. to 5·30 p.m. on the first five days of the week; from 6 a.m. to—(to be settled) on Saturday.
- "3. Any work done after the regular hours to be paid at the same rate as formerly.
- "4. All former privileges of the men to be retained. (This would include a clause, that if under the day system a man was not without notice dismissed before the end of the day, under the hour system he should receive a like notice, or five hours' pay).

"Thus, the building trade might once more set to work upon practically the same conditions as have served now for several generations, with the single exception of the change in the measure of labour. This change would be a clear advantage to the masters, but no less to the men, who would accept it voluntarily from a sense of justice. All irritating and endless controversies would be closed. Neither party would have achieved—what would be equally injurious to both winner and loser—a victory."

#### VIII.—*Failure of the Harvest of 1861, in France; Imports of Corn.*

THE following paragraph is given by *Galignani*. Reckoning the Imperial English Bushel at, say 60 lbs avoirdupois, the Imperial Quarter would be (8×60) say 480 lbs. or equal to 2·16 French Quintals of 221·5 lbs.

"An official return just published shows that the *import of wheat* into France in the first nine months of the present year was 3,745,606 quintals (the quintal is 221½lb.), and that of flour 246,299; the largest quantities of the former being brought from Russia, England, the United States, and Turkey; and the latter from the last three countries and from Spain. Of *rye*, the import in the same period was 27,260 quintals from Russia, and 25,895 from Belgium; *maize*, 57,737 from Turkey; *barley*, 54,000 from Belgium, 25,366 from Turkey, and 91,807 from

Algeria; and *oats* 123,243 from Russia, 72,214 from Sweden, 76,517 from Germany, 51,696 from Belgium, 29,758 from England, 11,193 from Italy, and 32,899 from other countries. In the same nine months France exported 326,541 quintals of wheat the greater part to England and Switzerland; 269,468 of flour chiefly to England, Switzerland, and Algeria; 194,272 of potatoes, principally to the same countries; 66,391 of barley to England, and 18,016 to the Zollverein; and 11,439 of oats to Switzerland.

From another return it appears that from the beginning of what is technically called "the season" of (1861-2.)—that is from the 1st August last (1861), up to the 20th October, (1861,) the quantity of *wheat and flour* combined, which was imported into France was 4,232,385 quintals, and that exported 68,236, leaving an excess of imports of 4,164,149 quintals. In the same period the excess of imports over exports of *rye and other grain* was 340,120 quintals.

IX.—Calculations relative to the Effect of a High Price of Raw Cotton on the Prices of Cotton Cloth, November, 1861.

THE following statement appeared in a letter signed "J. M." in the *Times* of 9th November, 1861:—

"It has been calculated that the *home market* absorbs *two-thirds* of all goods manufactured in this country. If so, our trade with the United States, under present circumstances, can only be affected to the extent of their proportion to that third, and the dreaded consequences to this country from the continuance of the war in America is, to my mind, more visionary than real. As to cotton, it appears from the *Times* of the 5th inst. that at present there is no lack of stock in this country of the raw material; and, if there was, I believe the present high prices would command a supply, directly or indirectly, from even the Southern States of America, in the same way as goods were obtained from Russia during the war with that country. The additional price on cotton will not affect the price of the medium and *finer textures* of cotton goods to the extent per yard that some persons predict, from the fact that the cost of the raw material (unlike silk and woollen) is but a fraction of the value of the cloth, when compared with the labour required to produce it. The fluctuations in the *price of weaving* tend, not unfrequently, to alter the price of cotton goods as much as the present rise in the raw material; and I believe the present depression in *cotton cloths* in the American market proceeds more from panic, and an over-abundant supply already in that market, than from any reasonable explanation why the women of that country should cease wearing cotton dresses during the time of war any more than during the time of peace; for even should the raw material of cotton become higher in price than it is at present, it would still be found the cheapest and most serviceable commodity for the manufacture of the lighter fabrics, and so long as we defy competition in manufacture there is nothing to fear.

"To show to what extent the present rise in the raw material of cotton will affect the prices per yard of the commoner fabrics woven by power and hand-loom, I give the following examples in ranges most common for gingham, gray cloths, &c. and for the sake of simplicity, though not strictly correct, I will calculate the wefts, of the same fineness as the warps. I may also explain that the terms 1,000, 1,400, and 1,800, indicate the fineness, or closeness, of the reed through which the warp works. Thus, a 1,000-reed represents 1,000 splits or dents, or 2,000 threads, in 37 inches, and when evenly wefted, as in this case, the weft bears the same proportion to space as does the warp. In calculating this table I have allowed 5 per cent. for waste:—

Showing the Yarns, Width, Length, and Weight, with the Cost of Raw Material to Work Five Yards in the several Reeds when sold by the lb. at 7d. and 1s.									Showing the Cost per Yard of Raw Material when Sold at 7d. and 1s. per lb.		Dif- ference of Cost between 7d. and 1s.
Reed.	Number of Yarns.	Porters Wide.	Spy.	IIks.	lb. oz. d.	7d. Per lb.	1s. Per lb.	7d. Per lb.	1s. Per lb.	Per Yard.	
800	18's	40	1	2	1 1 12	7 $\frac{1}{2}$	13 $\frac{1}{2}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{1}{2}$	
1,000	26's	50	1	7	- 15 6	6 $\frac{1}{2}$	11 $\frac{1}{2}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{1}{2}$	
1,200	38's	60	1	12	- 12 10	5 $\frac{1}{2}$	9 $\frac{1}{2}$	1	1 $\frac{1}{2}$	1 $\frac{1}{2}$	
1,400	50's	70	1	17	- 10 12	4 $\frac{1}{2}$	8	1	1 $\frac{1}{2}$	1 $\frac{1}{2}$	
1,600	66's	80	2	4	- 9 11	4 $\frac{1}{2}$	7 $\frac{1}{2}$	1	1 $\frac{1}{2}$	1 $\frac{1}{2}$	
1,800	84's	90	2	9	- 8 9	3 $\frac{1}{2}$	6 $\frac{1}{2}$	1	1 $\frac{1}{2}$	1 $\frac{1}{2}$	

"It will be seen from this table that the cost of the raw material to make, for instance, one yard of a 1,400 square, if sold at 7d. per lb., would be  $\frac{7}{8}$ d.; if at 1s. would be  $1\frac{1}{8}$ d.; and as a yard of that cloth would range in price from 7d. to 8d., the proportion that the raw material of  $\frac{7}{8}$ d., or even  $1\frac{1}{8}$ d., bears to the cloth will be apparent; and the additional cost per yard on the above fabrics in consequence of the rise in price of the raw material amounts to  $1\frac{1}{8}$ d. on the square yard of an 800,  $\frac{7}{8}$ d. on a 1,000,  $\frac{7}{8}$ d. on a 1,200,  $\frac{5}{8}$ d. on a 1,400,  $\frac{5}{8}$ d. on a 1,600, and  $\frac{4}{8}$ d. on a 1,800. The heavier cotton goods, such as moleskins and corduroys, will, no doubt, suffer, but their place can be supplied with hoddens gray in woollen fabrics, should that be necessary."

X.—The Financial Revulsion in France of 14th November, 1861—Declaration of a Deficit of 40,000,000l.—and Appointment of M. Fould as Finance Minister.

THE extraordinary documents which appeared in the *Moniteur* of 14th November, (1861), declaring the utter failure of the financial policy of the Empire,—the existence of a Deficit of at least 40,000,000l.,—and the appointment of M. Fould as a kind of Supreme Finance Minister, induce me to insert here the Conclusions, at which, in conjunction with Mr. Tooke, I arrived at the close of 1856, after an extensive examination of the Financial Policy of France during the preceding fifteen years. The following paragraphs are the Statement of Conclusions at the end of the sixth part of the fifth and sixth vols. of the "History of Prices" published early in 1857. The quotation is from vol. vi, pp. 130—134.—(W. N.), Ed. S. J.

"The following appear to be the principal Conclusions, which are fully justified by the statements and evidence contained in the preceding inquiry in this sixth part, viz. :—

1. "That the Revolution of February, 1848, occurred at a period, when, by the operation of numerous causes, the Finances of the French Government were already seriously embarrassed;—that among the most important of these causes were the Laws of 1841 and 1842, under which the State had taken upon itself the responsibilities and the expenditure entailed by the construction throughout France

of an extensive network of trunk lines of railway; the unproductive expenditure for a long series of years of large annual sums in Algeria; the unproductive expenditure of considerable sums on Public Works, yielding no adequate return either direct or indirect; and the maintenance for a long period of an excessive annual outlay on the Army and Marine:—and that, in immediate aggravation of all these causes of financial disorder, there had occurred in France, in the closing months of 1846, and throughout the greater part of 1847, a commercial crisis (taking its origin in the serious failure of the Harvest of 1846), more severe and disastrous than had been experienced in France for twenty or thirty years.

2. "That the suspension of Cash Payments by the Bank of France, adopted in March, 1848, and maintained for two years and a-half, till August, 1850, was a measure wholly unavoidable, in consequence of the prevalence in March, 1848, of extreme internal discredit, which admitted of being met in no other form:—that the prevalence during these two and a-half years of a very low price of corn in France; of a state of the external Trade of France, which established a large yearly balance in favour of that country; and of the absence of any political causes, which rendered it necessary for the Government to require excessive advances from the Bank of France, rendered the suspension practically unproductive of any depreciation or inconvenience, and led to its removal in August, 1850, by the spontaneous accumulation in the Bank of France of an amount of Treasure quite equal to the amount of Notes in Circulation.

3. "That among the important circumstances which have contributed to strengthen the position of the Bank of France since 1848, and to aid the Government in its plans for fostering credit, has been the extension, by 12 or 14 millions sterling, of the disposable means of the Bank of France, in consequence of the addition of that amount in the form of Small Notes to the former average Circulation of the establishment.

4. "That under the Autocratic Government established in December, 1851, there have been introduced into France a set of financial principles, and there have been placed in course of trial a series of financial experiments, distinguished by a novelty which finds no sanction in any successful precedent,—by a hardihood which sets at nought almost every established canon of finance,—and by a disregard of the future, which purchases present popularity at any cost.

5. "That the earliest purposes to which the New Financial Policy was devoted, were the reduction in March, 1852, of the interest on the French Five per cent. Debt; the imposition, on the Bank of France, of a new charter, which compelled it at once to lower the rate of discount to 3 per cent., and to make large advances on Stock Exchange Securities; the concession, on conditions more or less onerous to the State, of a large number of lines of railway; and the introduction of several joint-stock companies, encouraged by every State appliance to foster the application of credit to purposes of speculation.

6. "That between the early part of 1852 and the autumn of 1853, the prosperity and progress which seemed to prevail in France were chiefly the result of these artificial measures.

7. "That the difficulties of various kinds which have occurred in France since the close of 1853, and more especially the difficulties experienced by the Bank of France in the autumns of 1855 and 1856, have arisen, in a principal degree—allowing of course for the war and scarcity—from the embarrassments and disorders, entailed by the policy which has forced upon France enterprises and speculations disproportionate to its resources of available capital.

8. "That those embarrassments and disorders would have become altogether overwhelming, if it had not been for the springing up, since 1849, chiefly in the gold countries, and in consequence of the gold influx, of a demand for French manufacture and produce, so large and continuous, that during the nine years, 1848-56, the balance of trade in favour of France has amounted to not much less than 80 millions sterling.

9. "That neither the apparent success of the reduction of the French Five per Cents. in March, 1852, nor the apparent success for some time of the enforced

maintenance of a Low Rate of discount; nor the setting up of popular Discount and Loan Banks; nor the apparent alacrity with which the subscription lists to the war loans of 60 millions were filled up; nor the maintenance for a long period of the schemes for selling bread at an artificially cheap rate; nor the multiplication of railway companies by means of guaranteed dividends; nor the apparent prosperity created by public works and credit institutions; afford the smallest support, when examined minutely and fully, to the financial principles and the financial practices, which have held the supreme place in France since December, 1851.

10. "That of the two great credit institutions, called the Credit Foncier, and the Credit Mobilier, the former is directed to a useful and laudable object, but is degraded and disfigured by the introduction of elements of gambling, empirical, and pernicious; and the latter, the Credit Mobilier, seeking to obtain large profits by exciting violent fits of stock jobbing, and to obtain large funds by the issue of obligations practically not payable in specie;—approaches in design and machinery nearer than any institution of recent times to the model afforded by Law's Bank of 1716, and the *Compagnie des Indes* of the three following years.

11. "That, as a result of the whole investigation concerning the financial policy of France since 1847, there have been made apparent three principal facts, namely:—First, that between 1847 and 1851, it was the abundant harvest and low price of food in France which contributed in the largest degree to preserve order, to restore cash payments, and to re-establish an equilibrium between the income and the expenditure; second, that between 1851 and 1857 it has been the 100 millions sterling made available to France by the economy of its metallic circulation, and by the demand for its silks and wines in the gold countries, which has so far carried it through the perils of war, scarcity, and extravagance; and third, that the reckless and socialistic financial policy introduced since December, 1851, has already exposed France to failures and perils quite as formidable as any that were threatened by the Revolution of 1848; and unless subjected to early and most severe restraints, will assuredly produce the most disastrous consequences."

#### XI.—*Lord Canning's Measure for the Sale of Waste Lands and the Redemption of the Land Tax in India.*

LORD CANNING'S measures of October, 1861, relating to the Sale of Waste Lands and the Redemption of the Land Tax in India are so important that they may be regarded as the commencement of a kind of economical revolution in India; we, therefore, give the Official Paper entire. Of the sound policy of the measure there can scarcely be two opinions. It ought to have been adopted long ago.—*ED. S. J.*

##### "RESOLUTION.

"1. His Excellency the Governor-General in Council has had under his consideration the subject of the despatches from the Right Hon. the Secretary of State (No. 2 of 31st Dec., 1858; No. 1 of 16th March, 1859), with the opinions of the several local Governments, and of most of their principal officers, on two important subjects:—

"I. The sale of waste lands in perpetuity, discharged from all prospective demand on account of land revenue; and

"II. Permission to redeem the existing land revenue by the immediate payment of one sum equal in value to the revenue redeemed.

"2. His Excellency in Council finds that the ablest and most experienced public officers very generally concur with private parties interested in land, in the expect-



tation that substantial advantages will follow the adoption of both these measures.

"3. There is, however, much diversity of opinion as to the extent to which either measure is likely to operate, and as to the rules under which the acquisition of waste land in perpetuity and the redemption of the land revenue should be allowed. Some experience may be required to test fully the comparative soundness of the several opinions on these points; but his Excellency in Council sees no reason to doubt, that so far as either measure may take effect, it will be in every way beneficial.

"4. As regards the sale of waste lands, there can be no question of the substantial benefits, both to India and to England, which must follow the establishment of settlers who will introduce profitable and judicious cultivation into districts hitherto unreclaimed. His Excellency in Council looks for the best results to the people of India, wherever in such districts European settlers may find a climate in which they can live and occupy themselves without detriment to their health, and whence they may direct such improvements as European capital, skill, and enterprise can effect in the agriculture, communications, and commerce of the surrounding country. He confidently expects that harmony of interest between permanent European settlers and the half civilized tribes, by whom most of these waste districts or the country adjoining them are thinly peopled, will conduce to the material and moral improvement of large classes of the Queen's Indian subjects, which for any such purposes have long been felt by the Government to be almost out of the reach of its ordinary agencies.

"5. His Excellency in Council has still less doubt as to the beneficial results of permitting a redemption of the land revenue. He believes that increased security of fixed property, and comparative freedom from the interference of the fiscal officers of the Government, will tend to create a class which, although composed of various races and creeds, will be peculiarly bound to the British rule; whilst, under proper regulations, the measure will conduce materially to the improvement of the general resources of the empire.

"6. But it is the firm conviction of the Governor-General in Council that, in order to obtain permanently good results from such measures, it is indispensable not only that no violence be done to the long-existing rights which, sometimes in a rude, sometimes in a complicated form, are possessed by many of the humblest occupants of the soil in India, but that these rights be nowhere slighted, or even overlooked. Scrupulous respect for them is one of the most solemn duties of the Government of India, as well as its soundest policy—whatever may be the mode in which that Government may think fit to deal with rights of its own.

"7. With these views his Excellency in Council proceeds to state the rules under which he desires that the governments and administrations of India should give effect to these two measures:—

"8. I.—As to the sale of unassessed waste lands, in which no right of proprietorship or of exclusive occupancy are known to exist at present, or to have existed in former times, and to be capable of revival.

"9. In any case of application for such lands they shall be granted in perpetuity, under the rules which will be presently laid down, as a heritable and transferable property, subject to no enhancement of land revenue assessment.

"10. All prospective land revenue will be redeemable, at the grantee's option, by a payment in full when the grant is made, and the land granted will thenceforward be permanently free of all demand on account of land revenue.

"Or, at the grantee's option, a fixed annual sum may be paid at the rate of 10 per cent. on any unpaid portion of the price of the grant, which will then be under hypothecation till the price is paid in full.

"11. The deed of grant shall be drawn up in English, with a vernacular translation attached; the meaning in all doubtful cases being settled by the English text.

"12. Except under peculiar circumstances which may require special reserva-

tion, the deed shall convey all rights of forest, pasturage, mines, fisheries, and all other property of the Government in the soil; but it will reserve to the Government, to proprietors of other lands, and to the public, all existing and customary rights of freely using any stream for purposes of navigation or irrigation, and for the transport of timber or other property, and for other purposes of general utility.

"13. There shall be no reservation to Government of any right to take land or material for roads, tanks, canals, works of irrigation, or other public improvements other than may be marked out or designated at the time of the grant, or otherwise specifically excepted in the grant. But the absence of such reservation will not affect the power of the Government to purchase land under Act VI, of 1857, or under any other general law for the acquisition of land, &c., required for public purposes.

"14. There shall be no condition obliging the grantee to cultivate or clear any specific portion of the grant within any specific time.

"Conditions of this kind are considered by many experienced officers as useful, if not necessary, provisions; but the Governor-General in Council is convinced that every reasonable object of such restrictions—such as the guarding against attempts to monopolize advantages of situation with a view to a re-sale rather than to immediate use—will be sufficiently secured by a limitation of the area of grants, and by the necessity for immediate payments, and that the latter kinds of security will be the more advantageous to purchasers.

"15. And if the area be limited, his Excellency in Council does not attach importance to any provisions for clearing and cultivating any specified proportion of it. The price to be paid will generally serve as a security that the grantee will clear as much as he can, unless he finds it more profitable to keep land as forest or pasturage; and there is no ground of public policy upon which to require him to do more. It is rarely that the clearance of trees, beyond what is needed for cultivation, is an object of public importance. In many parts of the country the contrary is the case. And as a general rule, and whatever may be the nature of the growth which covers the soil, his Excellency in Council would wish, in this as in other matters, to leave it entirely to the owner's judgment and self-interest to make the best of a grant for which he has once for all paid a fair price to Government.

"16. The land registers of the collector of land revenue, or of any other local officers exercising collectors' powers, when properly kept and perfect, will often enable him to state at once whether there is any other prior claim of property or occupancy on the land applied for.

"17. When there is no such claim apparent from the Government records, and the collector knows no other objection to the grant, he will advertise the application in the customary and effectual manner for a term which probably need rarely exceed thirty days.

"18. When, after the expiration of the term fixed, no such claim is preferred, or when, if preferred, it shall have been disposed of, the collector will give to the applicant a document testifying that the land, as described in his application, has been allotted to him, subject to the terms hereinafter specified.

"19. If after the allotment of the land under the preceding rule, any person shall establish a right of property in the land so allotted, the possession of the party to whom the land has been granted *bona fide* shall not be disturbed. But provided the claim be made one year from the allotment, the claimant, on proof of his right and on showing good reason why his claim was not advanced before the allotment took place, shall be entitled to receive from the Government full compensation for the actual value of his interest in such land. After the expiration of a year all rights of third persons which have not been already claimed, will be altogether barred, as well in regard to compensation as against the land, subject in regard to compensation to the same exceptions in case of persons under disability from infancy, lunacy, or other like causes, as are admitted by the existing law of limitations.

"20. No reference to revenue boards or other distant authorities should be necessary, except in special cases of doubt. Rules of procedure must be laid down

by the local governments with sufficient clearness of detail to obviate in all ordinary cases any necessity for reference or sanction.

"Grants will of course be immediately reported to the local government, and any departure from the rules of procedure should be promptly noticed by the Board of Revenue, or other controlling authority. But no confirmation should be required to complete grants made in accordance with the published rules of procedure; and such grants should not be liable to be disturbed on account of any informality not attributable to any act or default of any grantee.

"21. A maximum limit must be fixed to the size of all grants. Probably 3,000 acres would be of suitable limit in Eastern Bengal, Cachar, Assam, and similar districts. In localities where land is more valuable and in great demand—as, for instance, in the neighbourhood of towns, hill stations, and sanatoria—a lower limit may be fixed. It will generally be safe to consult the wishes of intended applicants on this subject when they are in numbers sufficient to give weight to their opinions as to what general limitation is likely to be best for the general interests; but regarding such consultation each local government will exercise its own discretion.

"22. In districts like Sylhet, Cachar, and Assam, where a considerable portion of the ground is swamp or unculturable land, a due proportion may be deducted as valueless. Probably this need never exceed one-fourth of the whole area.

"23. Wherever it is necessary for the public interests to reserve for future disposal any special tracts of land of which no immediate grant will be made, due notice should be given, so that applicants for land must not lose their time in examining such tracts.

"24. It is to be understood that reserves of grazing land, or of land for the growth of forest trees, or of fire wood near towns and stations, or for other special purposes, such as sites for sanatoria, building lots, &c., &c., are not to be sold without the special sanction of Government.

"25. When the land applied for is unsurveyed, immediate possession may be given on payment of the collector's estimate of the cost of survey; and this may generally be calculated at a fixed rate, according to estimated acreage. But no time must be lost in having a survey made, and for this purpose one or more competent surveyors should be attached to every unsurveyed district where such applications are likely to be frequent. The survey need not embrace more details, nor be made with greater accuracy than is necessary clearly to define rights, and to ensure the ready identification of boundaries.

"26. In surveyed districts a tracing from the official plans, and extracts from the field books and other registers will generally suffice.

"27. Ten per cent. of the purchase money, and the actual cost of survey (allowing of course for the sum previously deposited upon the collector's estimate of the survey) will be paid by the grantee on delivery of the deeds and plan, and the name of the grantee will be provisionally entered in the collector's records as proprietor of that grant.

"28. If the balance of the purchase money be not paid within three months, interest at ten per cent. per annum, will, as has been already prescribed in paragraph ten, be charged on the unpaid balance; and the land will be held liable to re-sale in default of the regular payment of such interest, should there be no crop or other moveable property on the land from which the claim of Government can be satisfied.

"29. The price to be paid for *unassessed land* should not exceed rupees 2½ per acre for uncleared land, or rupees 5 per acre for land unencumbered with jungle, subject to deduction of area for swamps or unculturable land, as above stated. This limitation of rates shall remain in force for five years from the 1st of January, 1862, subject to revision in the case of land which may be sold after that period.

"30. In the event of more purchasers than one offering to buy the same tract, neither having any previous right to the land, it may be put up to auction at the upset price of an ordinary grant. But except in such cases, or in the case of

suburban lots, recourse will not be had to sale by auction; the applicant will receive his land at a fixed price.

"31. Provision will be made for a further grant to the same grantee to the following extent:—As soon as the grantee's name shall have been provisionally entered in the collector's records as proprietor of a grant (as prescribed in paragraph 27), any one adjoining plot, not exceeding the previous grant in area, if not previously applied for, and if available for disposal by Government, may at the grantee's request be surveyed at his expense, marked off, and reserved as a future grant to him; but subject to the obligations that within five years from the date of his previous grant he shall fulfil the conditions necessary to his being recorded as proprietor of this further grant, and that two-thirds of the previous grant shall within the same time have been brought under cultivation. If he should fail in either obligation the reservation of the plot will cease.

"32. There need be no limit to the number of further grants which may be successively taken up on fulfilment of these obligations.

"33. Holders of grants under any existing rules, who have not yet completed the purchase of their grants, will be allowed to commute them under the new rule, but without being subject to the limitation of the new rules as to area. The area which, in such cases, the grantee will be at liberty to purchase absolutely, will be determined by the provisions of the original grant; and he will be free to purchase absolutely as much or as little of that area as may suit him, retaining, if he pleases, the remainder upon the terms of the original grant.

"34. Where there are exclusive rights of occupancy, pasturage, wood-cutting, turf-cutting, or other like rights in unassessed waste land, such waste land may be sold under the above rules, but only to those who shall satisfy the collector that they possess such rights by prescription, or have obtained them by purchase. It will be an important part of the collector's duty to make certain that any transfer of such rights shall have been made with a complete and fair understanding on the part of all concerned.

"35. Ryotwary district lands, for which an assessment has been fixed, but which have been uncultivated for five years or upwards, but which are at the absolute disposal of the Government, may be sold under the same conditions as unassessed waste lands, excepting that the price shall be 20 years' purchase of the assessment.

"36. The right of purchase on these terms should, in the first instance, be tendered to the inhabitants of the village within whose bounds the land may be situated, or who may have been in the habit of using it.

"37. The tenure of all waste lands granted under this resolution will be that of an heritable and transferable property held in perpetuity free from all claims either of the Government or of third persons prior to or inconsistent with the grant.

#### II.—As to the Redemption of the Land Revenue.

"38. Great caution is necessary in dealing with what has always formed so large a part of the revenues of the Government of India. The Governor-General in Council proposes, therefore, in the first instance, to limit the permission of redemption in any one district to such a number of estates as shall, in their aggregate assessment, not exceed 10 per cent. of the total land tax of the collectorate, or corresponding fiscal division of the country.

"39. This restriction will enable Government to ascertain in each province, without undue risk to its permanent fiscal resources, the practical effect of permitting the redemption, both in completely populated and well cultivated districts, and in those where there is much uncultivated land and a thin population. It will afford an opportunity of hereafter reconsidering the effects of the measure with the light of ample experience; while the limit which it prescribes is large enough to allow of a considerable number of those who may be able and desirous of redeeming the land revenue of their estates to do so, partially or wholly.

"40. In any case when redemption shall have reached the limit of 10 per cent. of

the total land revenue of the collectorate, the result is to be reported to the Governor-General in Council, with a view, if expedient, to the enlargement of the limit in that collectorate, and to the permission of further redemption.

"41. The price to be paid is fixed at 20 years' purchase of the existing assessment.

"42. Doubts are expressed by experienced officers whether many purchasers will come forward at such a rate, so long as the current rates of interest for money lent on security, or employed in trade, continue as high as at present. But justice to the public creditor, and a due care for the resources of the Government, require that, as long as the public revenue is no more than sufficient to meet the current charges of the empire and the interest of its debt, no lower terms of redemption of a permanent tax forming the security for that debt should be accepted than will, when the price is invested in public securities, afford a corresponding relief in the payment of interest.

"43. The tenure obtained will, as in the case of waste lands, be that of an heritable and transferable property, held in perpetuity free of all demand on account of land revenue, or of the Government. But such tenure will not carry with it, as that of waste lands will, immunity from any legal claims, other than those of Government to which the lands may be subject, and which may date prior to the grant under this resolution.

"44. Also the same steps will be taken to define the exact extent and limits of the property, by means of plans and survey records.

"45. In districts in which the land revenue is permanently settled permission to redeem will be confined to the person who has the right to pay the Government land revenue, rent, assessment, or Jumma; and its effect will be strictly limited to such Government claims, reserving all existing sub-tenures or subordinate rights of occupancy.

"46. In districts in which this land revenue is not permanently settled the party who has the right to pay the Government land revenue, rent, or Jumma, will be permitted to redeem it only when he also possesses the right of occupancy of the land.

"47. The freedom of tenure conferred by redemption of land revenue will be absolute only as against the Government. It will be given on *prima facie* evidence of the rights above-mentioned, and other parties contesting those rights and claiming the land will be as free as before to sue the holder in the civil courts.

"48. The assessment on which the purchase money will be calculated will, in permanently settled districts, be the permanent assessment.

"In temporarily settled districts it will be the assessment of the last settlement.

"49. It has been apprehended that the Government will suffer loss by such a rule where a temporary assessment has been fixed so low as to render it certain that a considerable enhancement may be expected at the next settlement.

"In such cases the enhancement of the direct revenue from the land will of course be foregone; but in many parts of the country where this would happen there exist, in a peculiar degree, that amount of general intelligence, and of confidence in the measures of the Government, and that sufficiency of capital which would encourage landowners to redeem their land; and where this is the case his Excellency in Council considers it a wise policy that those who may come forward to redeem should not be shut out from the full advantage of the measure by reason of their actual assessment being low.

"The price fixed precludes any sacrifice of immediate revenue; and his Excellency in Council is convinced that even a few estates on which the land revenue has been redeemed, scattered through the country, would have in many indirect ways a beneficial effect on the unredeemed land revenue itself, as well as on other sources of Government income.

"50. Grants which have already been given for a term of years, at progressively increasing rents, such as those in the Sunderbunds, will be treated as if the land were permanently settled, if the holder wishes to redeem the future land revenue at the highest rate fixed for any year during the currency of the grant,—

provided it shall not exceed the rate fixed in paragraph 29 of this resolution, and if there is no right of occupancy other than that of the lessee, or that derived from him.

"51. Where no right of proprietorship or of occupancy exists in any party, and the land is simply held from year to year, or by tenants at will, the actual tenant should be allowed to redeem; unless there be competition, when the redemption should take place by auction.

"52. Where estates are assessed in shares (such as co-partenary estates, held on Byachara, Pattadaree, Nirwa, or Baghdar tenures), it will be necessary to define that nothing more is sold than the right of the Government to levy and assessment, and that this is sold only to those who are under liability to pay that assessment. Moreover, that the purchasers will remain subject to all other customary liabilities, whether to individuals or to communities.

"These conditions are indispensable to insuring that no other sharers' rights shall be injuriously affected.

"53. Such tenures will require peculiar care in dealing with them; but provided that suitable and sufficient precautions be taken there is no reason why those who hold them should be excluded from the benefits of the measure.

"54. As in the cases of sale of waste lands, so in those of redemption of land revenue, no conditions will be imposed as to the expenditure of a given amount of capital, the growth of particular staples, or the like. The party redeeming the land revenue will be left entirely free to follow the course which he may deem most profitable to himself.

"55. Provision will be made in any legal enactment which may be passed to give effect to this resolution, that the party named in the grant, whether of waste land, or of land on which the assessment has been redeemed, or his legal heir or representative, shall be regarded as the sole legal owner of the land, subject only in the latter case to claims other than those of Government, and to sub-tenures and subordinate rights of occupancy existing at the time of redemption, and that no transfer property in it shall be recognised by other courts or fiscal officers, unless duly registered.

"56. With a view to secure the Government and the public creditor against any loss of existing sources of Government income, provision will be made by law that all sums paid in purchases of waste lands, or in redemption of land revenue, or in otherwise forestalling the land revenue, shall be paid to commissioners and periodically invested as the law may direct. The commissioners will report annually to Government the total amount they have received and invested, and the districts from which it has been received, and their reports will be published.

"57. The local governments will be called on to prepare the draft of a law to give legal effect to these measures within their several jurisdictions, so as to secure for all grantees a legislative title to their property.

"But it is not necessary to await the enactment of such a law before making known, and, as far as practicable, acting upon, the rules which have been here laid down."



ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN  
OF THE  
MARRIAGES IN ENGLAND AND WALES DURING THE SECOND QUARTER  
(APRIL—JUNE), OF 1861, AND OF THE BIRTHS AND DEATHS  
DURING THE THIRD QUARTER (JULY—SEPTEMBER), OF 1861.

THIS Return comprises the BIRTHS and DEATHS registered by 2,199 Registrars in all the districts of England during the summer quarter that ended on September 30th, 1861; and the MARRIAGES in 12,509 churches or chapels, about 4,488 registered places of worship unconnected with the Established Church, and 635 Superintendent Registrars' offices, in the quarter that ended on June 30th, 1861.

*Marriages* were comparatively few in the first quarter of this year; they became *more numerous* in the second quarter, which indeed happens very invariably in England; but still they did not quite attain the average for the June quarter; the *children born* in the September quarter *decidedly exceeded* the number which the average birth-rate for the same period would have produced; whilst the *rate of mortality* in the same three months, though it differed little from, *was not so high* as the average rate for that season, which is the healthiest of the year. This statement exhibits the most prominent features of the Return.

The POPULATION of England, from whose daily history the above results are evolved, may be stated to have been last April, 20,062,612. This number is subject to some modification, which may be necessary after further revision of the facts. The rate of increase in the last decennium was 12 per cent.

MARRIAGES.—The number of persons married in the spring quarter was 83,932.

ENGLAND:—MARRIAGES, BIRTHS, and DEATHS, returned in the Years  
1855-61, and in the QUARTERS of those Years.

Calendar YEARS, 1855-61 :—Numbers.

Years .....	'61.	'60.	'59.	'58.	'57.	'56.	'55.
Marriages No.	—	170,305	167,723	156,070	159,097	159,337	152,113
Births .....	—	683,440	689,881	655,481	663,071	657,453	635,043
Deaths .....	—	422,472	440,781	449,656	419,815	390,506	425,703

QUARTERS of each Calendar Year 1855-61.

(I.) MARRIAGES:—Numbers.

Qrs. ended last day of	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....	33,401	35,198	35,382	29,918	33,321	33,427	29,186
June .....	41,966	43,833	42,042	39,890	41,267	38,820	38,549
Septmbr. ....	—	40,572	39,803	38,599	38,669	39,089	37,308
Decmbr. ....	—	50,702	50,496	47,663	45,840	48,001	47,070

QUARTERS of each Calendar Year, 1855-61.

(II.) BIRTHS:—Numbers.

Qrs. ended last day of	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....	173,170	183,206	175,532	170,959	170,430	169,250	166,225
June .....	181,718	173,914	175,864	169,115	170,444	173,263	165,277
Septmbr. ....	171,500	164,062	168,394	157,445	161,181	157,462	154,700
Decmbr. ....	—	162,258	170,091	157,962	161,016	157,478	148,841

(III.) DEATHS:—Numbers.

Qrs. ended last day of	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....	121,713	122,642	121,580	125,819	108,665	103,014	134,542
June .....	107,721	110,878	105,631	107,142	100,046	100,099	106,493
Septmbr. ....	100,986	86,423	104,216	98,142	100,528	91,155	87,646
Decmbr. ....	—	102,529	109,354	118,553	110,576	96,238	97,022

The marriage-rate was 168 to ten thousand of the population, which is less by two than the average, and less by eight than the annual number married in the same quarter of last year, when it is shown by the Returns of the Poor Law Board, the labouring class were in a more thriving condition. By surveying the eleven great divisions of England, as these are constituted in the Tables, and with reference to their several contributions to the marriage-list, this result will be discovered—that there was a *decrease of marriages* last spring as compared with the same period of 1860 in all of these divisions except two. The South-eastern counties, especially Surrey, maintained a fair proportion; and in the Northern counties there was a very manifest increase. Durham, Sunderland, Gateshead, Tynemouth, and Carlisle, were in a prosperous condition, if, as may be presumed, a willingness in the unmarried to form the marriage relation, and a confidence in their ability to undertake its responsibilities, be the test of prosperity in England.

ENGLAND:—Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS,  
during the YEARS 1855-61, and the QUARTERS of those Years.

Calendar YEARS, 1855-61 :—General Percentage Results.

YEARS .....	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
Estmtd. Popln. of England in thousands in middle of Year .....	20,114	—	19,889	19,667	19,448	19,231	19,016	18,804
Persons Married Per ct.	—	1·694	1·712	1·706	1·606	1·654	1·676	1·618
Births ....	—	3·420	3·436	3·508	3·370	3·448	3·457	3·377
Deaths ....	—	2·226	2·124	2·241	2·312	2·183	2·054	2·264

## QUARTERS of each Calendar Year, 1855-61.

## (I.) PERSONS MARRIED:—Percentages.

Qrs. ended last day of	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March....Per ct.	1·352	1·417	1·420	1·460	1·248	1·408	1·416	1·266
June..... „	1·676	1·703	1·762	1·712	1·642	1·714	1·638	1·618
Septmbr. „	—	1·622	1·608	1·598	1·566	1·592	1·626	1·574
Decmbr. „	—	1·999	2·002	2·020	1·930	1·876	1·990	1·978

## (II.) BIRTHS:—Percentages.

Qrs. ended last day of	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March....Per ct.	3·506	3·592	3·693	3·624	3·567	3·600	3·585	3·603
June .... „	3·689	3·554	3·495	3·579	3·490	3·548	3·656	3·534
Septmbr. „	3·378	3·275	3·250	3·379	3·195	3·308	3·275	3·261
Decmbr. „	—	3·227	3·203	3·402	3·198	3·295	3·264	3·128

## (III.) DEATHS:—Percentages.

Qrs. ended last day of	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March....Per ct.	2·464	2·480	2·472	2·510	2·625	2·295	2·182	2·916
June..... „	2·151	2·207	2·228	2·150	2·205	2·083	2·112	2·277
Septmbr. „	1·989	2·021	1·712	2·091	1·992	2·063	1·896	1·848
Decmbr. „	—	2·179	2·024	2·187	2·400	2·263	1·995	2·039

**BIRTHS.**—There were 171,500 children born in the summer quarter (ending September, 30th). In the summer of 1860 the number was 164,062. The annual birth-rate derived from ten summers is 328 for ten thousand of the population; in the last quarter it was 338. Comparing the two quarters of 1860-61, and viewing the numbers absolutely and without reference to the increase of population, it appears that there was an *increase of births* in all the eleven divisions *except that of Monmouthshire and Wales*; for as regards this last department of the country, in which 10,686 births were registered, a difference amounting to only 16 is hardly important enough to be called an increase. But this division would have furnished no exception to the rule of increase, if the character of its returns in their aggregate were not unfavourably affected by Merthyr Tydfil, Bridgend, Swansea, Newcastle-in-Emlyn, and Crickhowel in South Wales, in which parts a decrease has occurred both in marriages and births, chiefly perhaps in consequence of the migration of persons connected with the industrial operations of those districts.

Liverpool with a population of 269,733 produced 2,154 births, whilst Manchester with a less population, 243,615, returned 2,277. In London the births in the quarter were 23,126; in Lancashire they were 23,055.

**INCREASE OF POPULATION.**—The natural increase of population is the excess of births over deaths in a given time. This *excess was 70,514* in the quarter, or an average of 766 in a day. The natural growth is weakened or strengthened by migration.

Last quarter 19,892 *persons left ports* in the United Kingdom, at which there are Government emigration officers. Of these, 6,348 went to the United States 4,930 to the North American Colonies, 7,100, to the Australian Colonies, 1,514 to other places. Of the total number of emigrants 8,942 were of English origin, and of these a large proportion chose the Australian Colonies. The Scotch preferred the North American Colonies to the United States.\*

In the summer quarter of 1851, the total number of emigrants from the United Kingdom to the United States was 68,931, in that of last year it was 21,104, and in the present year the number for the quarter declined to 6,348. British North America has received a certain number of those, who would have preferred the United States in a more peaceful time; but a great majority have decided to remain at home.

**PRICES, THE WEATHER, AND PAUPERISM.**—The average price of *consols* in the quarter fell to 91½. The average price of *wheat* per quarter was 52s. 1d., which is less by 7s. than it was in the same quarter of last year, but higher by 8s. than in that of 1859. Both beef and mutton are cheaper than they were at the same time last year. The average price of the best potatoes has fallen in the same periods from 135s. per ton to 97s. 6d.

The meteorological character of last summer was so far different from that of the summer which preceded it, that its mean temperature at Greenwich was 60·4°, having been higher by 4·2°. Till August 3rd, the temperature of the air was generally rather below the average; warm weather set in on the 4th, and continued thirty-nine days; from September 12th till September 27th, the weather for the most part was cold. On August 12th the mean temperature was 72·9°, nearly 12° in excess of the average, and higher by 10° than the highest mean temperature in 1860. On the same day the thermometer in the shade rose to 89·5°, or 13° higher than the highest point in 1860, which was 76·5° on May 23rd. The temperature of the last day of September was remarkable; the mean was 61·5°, and the highest 74°; and going back as far 1814, this is the only instance in which the mean temperature of September 30th, reached 60°. Hardly more than half an inch of *rain* fell in August; the total fall in the three months was 4½ in., which is 3½ in. below the average of forty-six summers. In July the weather was unsettled all over England; in the other months it was very fine, with little rain in some parts; but unsettled with much rain in others. For these and other interesting facts, stated in greater detail, Mr. Glaisher's Report, which is subjoined, may be consulted.

The returns of *pauperism* which were heavy in the early part of the year, continued heavier in the summer quarter than they were in the same period of last year.

**STATE OF THE PUBLIC HEALTH.**—The number of deaths registered in the three months was 100,986 considerably more than in the same quarter of 1860, which was 86,423, but less than in that of 1859. And over England the fluctuation in the deaths was generally similar to that which is shown in the aggregate number. The annual rate of mortality did not rise quite to the average; for the former was 199 in 10,000 of the population, the latter is 202. In the cold September quarter of 1860 the rate was 171.

The mortality in the *country* and small towns was 178, whereas that of the

\* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 5,617, while the birthplace of 7,396 emigrants was not distinguished; in the above statement a proportional number of these has been added to those returned as of English origin.

CONSOLS, PROVISIONS, PAUPERISM, and TEMPERATURE, in each of the nine  
QUARTERS ended 30th September, 1861.

1 Quarters ending	2 Average Price of Consols (for Money).	3 Average Price of Wheat per Quarter in England and Wales.	4 Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the Mean Prices.		6 Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	7 Pauperism.  Quarterly Average of the Number of Paupers relieved on the last day of each week.		8 Mean Tem- pera- ture.
			Beef.	Mutton.		In-door.	Out-door.	
1859 30 Sept.	£ 95 <sup>3</sup> / <sub>8</sub>	s. d. 44 0	d. d. d. 4 <sup>1</sup> / <sub>4</sub> —6 <sup>1</sup> / <sub>4</sub> 5 <sup>1</sup> / <sub>4</sub>	d. d. d. 4 <sup>1</sup> / <sub>4</sub> —6 <sup>1</sup> / <sub>4</sub> 5 <sup>1</sup> / <sub>4</sub>	s. s. s. 65—105 85	100,582	682,867	62·8
31 Dec.	96 <sup>1</sup> / <sub>8</sub>	43 4	4—6 <sup>1</sup> / <sub>2</sub> 5 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub> —6 <sup>1</sup> / <sub>4</sub> 5 <sup>1</sup> / <sub>4</sub>	85—120 102	109,429	683,962	43·3
1860 31 Mar.	94 <sup>1</sup> / <sub>8</sub>	44 5	3 <sup>1</sup> / <sub>4</sub> —6 <sup>1</sup> / <sub>2</sub> 5 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub> —6 <sup>1</sup> / <sub>4</sub> 5 <sup>1</sup> / <sub>4</sub>	115—145 130	118,523	717,264	38·8
30 June	94 <sup>1</sup> / <sub>8</sub>	52 8	4 <sup>1</sup> / <sub>4</sub> —6 <sup>1</sup> / <sub>4</sub> 5 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub> —7 <sup>1</sup> / <sub>2</sub> 6 <sup>1</sup> / <sub>2</sub>	125—160 142	107,050	692,384	50·5
30 Sept.	93 <sup>1</sup> / <sub>4</sub>	59 1	4 <sup>1</sup> / <sub>4</sub> —7 5 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub> —7 <sup>1</sup> / <sub>2</sub> 6 <sup>1</sup> / <sub>8</sub>	125—145 135	101,680	667,680	56·2
31 Dec.	93 <sup>1</sup> / <sub>4</sub>	56 9	3 <sup>1</sup> / <sub>2</sub> —6 <sup>1</sup> / <sub>4</sub> 4 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub> —6 <sup>1</sup> / <sub>4</sub> 5 <sup>1</sup> / <sub>4</sub>	115—130 122	115,158	673,680	42·6
1861 31 Mar.	91 <sup>3</sup> / <sub>8</sub>	55 1	4—6 <sup>1</sup> / <sub>4</sub> 5 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub> —7 <sup>1</sup> / <sub>4</sub> 6 <sup>1</sup> / <sub>8</sub>	140—155 147	131,501	758,441	39·9
30 June	91 <sup>3</sup> / <sub>8</sub>	54 9	4 <sup>1</sup> / <sub>4</sub> —6 <sup>1</sup> / <sub>2</sub> 5 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub> —7 <sup>1</sup> / <sub>4</sub> 6 <sup>1</sup> / <sub>4</sub>	120—140 130	117,802	713,785	51·8
30 Sept.	91 <sup>3</sup> / <sub>8</sub>	52 1	4 <sup>1</sup> / <sub>4</sub> —6 <sup>1</sup> / <sub>2</sub> 5 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>8</sub> —7 5 <sup>1</sup> / <sub>8</sub>	85—110 97	112,932	693,649	60·4

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The average of the highest and of the lowest weekly prices is here shown in cols. 4, 5, and 6, and not the absolute highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns now relate to 649 Unions, &c., comprising a population of 17,697,206 (in 1851), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1860, to—Insane Persons, 31,554; Vagrants, 1,542. The rest of the paupers on that day amounted to 817,800.

large towns was 221. The respective average rates are 176 and 235. Whence it appears that in an equal number of the population (10,000) there were 43 deaths more in towns than in country; but the health of the former was better last quarter, relatively to their own former experience, than that of the latter, for the mortality amongst the rural population slightly exceeded its average.

The town and country rates of mortality in the summer of 1860 were respectively 184 and 159. That season differed from the summer which has just passed

chiefly in this respect, that it was much colder, and consequently diarrhœa prevailed much less than it has recently done. In 10,000 persons the excess of deaths this year over those of 1860, was 37 in towns, and 19 in the country. Other causes besides diarrhœa affect in various ways the results; but the facts are sufficient to show that this complaint rules with a more deadly effect in towns, "where houses "thick and sewers annoy the air." It deserves to be noticed that the annual deaths from diarrhœa in London ranged from 452 to 811 in the years 1840-5;

DEATHS in the Summer Quarters, ended September 30th, 1854-61.—Numbers.

DEATHS, &c.	1861.	Total 1851-60, (10 Years.)	1860.	1859.	1858.	1857.	1856.	1855.	1854.
In 125 Districts and 23 Sub-districts, comprising the Chief Towns .....	54,867	528,681	45,495	55,509	53,706	55,718	49,975	46,654	67,555
In the remaining Districts and Sub-Districts of England and Wales, comprising chiefly Small Towns and Country Parishes ...	45,119	437,354	40,928	48,707	44,436	44,810	41,180	40,992	46,268
All England .....	100,986	966,035	86,423	104,216	98,142	100,528	91,155	87,646	113,843

AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Summer Quarters, ended September 30th, 1851-61.

GROUPS.	Area in Statute Acres. (England.)	Population Enumerated. (England.)		Deaths in 10 Summer Quarters, 1851-60.	Average Annual Rate of Mortality per Cent. of 10 Summer Quarters, 1851-60.	Annual Rate of Mortality per Cent. in the Summer Quarter, 1861.
		March 31st, 1851.	April 8th, 1861.			
In 125 Districts, and 23 Sub-Districts, comprising the Chief Towns .....	No. 2,149,800	No. 8,247,017	No. 9,804,598	No. 528,681	Per ct. 2·352	Per ct. 2·207
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly Small Towns and Country Parishes .....	35,175,115	9,680,592	10,258,014	437,354	1·756	1·780
All England .....	37,324,915	17,927,609	20,062,612	966,035	2·021	1·989

they suddenly mounted to 2,152 in 1846; they continued high during the whole period of 1847-59, which embraced two cholera epidemics; they were 3,335 in 1859, which is more than a sixth part of the deaths from diarrhœa that year in England. They fell to 1,383 in 1860. When an efficient system of drainage has come into operation in London and the large towns, and other sanitary works have sweetened the air above and the earth beneath, the permanent reduction of diarrhœa will be, it may be hoped, among the good results that will be gained; but that improvement "at home," which is so much needed by the poor, increased comfort in their dwellings and order in their habits, better food and purer drink, will probably be still more effectual in abating that disease by which so much infant life is yearly destroyed.



MARRIAGES Registered in Quarters ended 30th June, 1861-59; and  
BIRTHS and DEATHS in Quarters ended 30th September, 1861-59.

1 DIVISIONS. (England and Wales.)	2 AREA in Statute Acres.	3 POPULATION, 1861. (Persons.) No.	4 5 6 MARRIAGES in Quarters ended 30th June.		
			'61. No.	'60. No.	'59. No.
ENGLD. & WALES.... Totals	37,324,915	20,062,612	41,966	43,833	43,042
I. London .....	78,029	2,803,921	6,897	7,353	7,061
II. South Eastern .....	4,065,935	1,846,876	3,436	3,438	3,148
III. South Midland .....	3,201,290	1,295,375	1,976	2,154	1,964
IV. Eastern .....	3,214,099	1,142,202	1,677	1,725	1,735
V. South Western .....	4,993,660	1,835,551	3,651	3,803	3,617
VI. West Midland .....	3,865,332	2,436,137	5,127	5,342	5,365
VII. North Midland .....	3,540,797	1,288,718	2,771	2,906	3,008
VIII. North Western .....	2,000,227	2,934,722	7,067	7,348	6,701
IX. Yorkshire .....	3,654,636	2,015,329	4,127	4,537	4,221
X. Northern .....	3,492,322	1,151,281	2,726	2,499	2,429
XI. Monmthsh. & Wales	5,218,588	1,312,500	2,511	2,728	2,793

  

7 DIVISIONS. (England and Wales.)	8 9 10 BIRTHS in Quarters ended 30th September.			11 12 13 DEATHS in Quarters ended 30th September.		
	'61. No.	'60. No.	'59. No.	'61. No.	'60. No.	'59. No.
ENGLD. & WALES.... Totals	171,500	164,062	168,394	100,986	86,423	104,216
I. London .....	23,126	22,342	22,406	14,932	12,916	16,172
II. South Eastern .....	14,336	13,448	14,001	8,395	6,934	9,155
III. South Midland .....	10,547	10,115	10,814	6,235	5,358	6,647
IV. Eastern .....	9,013	8,511	9,283	5,857	4,565	6,158
V. South Western .....	14,386	13,482	13,881	7,612	7,071	8,517
VI. West Midland .....	21,525	20,777	20,779	11,416	9,675	12,627
VII. North Midland .....	11,080	10,777	10,978	6,529	5,454	6,466
VIII. North Western .....	27,184	25,708	25,992	17,316	13,959	15,506
IX. Yorkshire .....	18,635	17,723	18,318	10,901	9,806	10,986
X. Northern .....	10,982	10,509	10,788	6,107	5,185	5,849
XI. Monmthsh. & Wales	10,686	10,670	11,154	5,686	5,500	6,133

## REMARKS ON THE WEATHER,

DURING THE QUARTER ENDING 30TH SEPTEMBER, 1861.

By JAMES GLAISHER, Esq., F.R.S., &amp;c., Sec. of the British Meteorological Society.

Till the 3rd day of August the temperature of the air was generally a little below the average; the mean deficiency for the first 34 days amounted to  $\frac{3}{4}^{\circ}$  daily; a warm period set in on August 4th, and continued till September 11th; the average daily excess of temperature was  $2\frac{1}{2}^{\circ}$ , from September 12th to September 27th; the weather for the most part was cold; the average defect daily was  $0^{\circ}6$  only. A warm period set in on September 28th, and continued till the end of the quarter. In July the day of highest mean temperature reached  $63^{\circ}7$  only. On August 12th, it was as high as  $72^{\circ}9$ , being nearly  $12^{\circ}$  in excess of the average, and was higher by  $10^{\circ}$  than on July 15th, 1860, which was the day of highest mean temperature in the year 1860. On July 12th, 1861, the highest temperature reached was  $76^{\circ}9$ ; on August 12th it was as high as  $89\frac{1}{2}^{\circ}$ , and this point was  $13^{\circ}$  higher than the highest temperature noted in the year 1860, which was  $76^{\circ}5$  on May 23rd. On the last day of this quarter the temperature was remarkable, it rose to  $74^{\circ}$ , the mean for the day being  $61^{\circ}5$ , and this is the only instance, as far back as 1814, in which the mean temperature of the last day of September has been as high as  $60^{\circ}$ .

The mean high day temperature in July was  $1\frac{1}{2}^{\circ}$  below its average. In August it was  $3^{\circ}$ , and in September  $1^{\circ}$  above their respective averages of the preceding 20 years; therefore the days in July were somewhat cold, and in August and September were warm.

The mean low night temperature in July was  $\frac{1}{4}^{\circ}$  above, in August  $\frac{1}{2}^{\circ}$  above, and in September  $\frac{3}{4}^{\circ}$  below their respective averages. Therefore the nights during the past quarter have differed but little from their average.

The mean temperature of the air was  $1^{\circ}$  below in July, nearly  $2^{\circ}$  above in August,  $\frac{1}{4}^{\circ}$  in excess in September, as compared with the average of the preceding 20 years.

The mean temperature of the dew point was  $\frac{1}{4}^{\circ}$  below in July, was  $1^{\circ}$  above in August, and was  $\frac{1}{2}^{\circ}$  below in September, their respective averages. The mean for the quarter was less than  $\frac{1}{4}^{\circ}$  in excess, therefore the amount of water mixed with the air was a little greater than usual.

In July the air temperature was in defect more than the dew point, and therefore the air was more humid than usual. In August and September the temperature of the air was more in excess than the temperature of the dew-point, and therefore, the air was less than usually humid in those months. Upon the whole quarter the air was  $0^{\circ}4$  in excess, whilst the dew-point was  $0^{\circ}2$  in excess, and therefore the air was a trifle drier than the average.

The mean pressure of the atmosphere was nearly  $\frac{2}{100}$ ths of an inch in defect in July, was  $\frac{1}{10}$ th in excess in August, and was  $\frac{1}{10}$ th in defect in September, from the average of the preceding 20 years.

The fall of rain in July was  $2\frac{1}{2}$  inches, in August little more than half an inch, and in September was  $1\frac{1}{2}$  inch. The total fall during the quarter was  $4\frac{1}{2}$  inches, being  $3\frac{1}{2}$  inches below the average of the preceding 46 years.

The weather in July was variable and unsettled everywhere; in August and September it was very fine at some places, with but little rain, whilst at others it was unsettled, with a good deal of rain. The fall of rain from the beginning of the year has been more than usually partial at different places. The amount for the 9 months ending with this quarter are shown in the following table:—

TABLE of the FALL of RAIN during the Nine Months ending September 30th, 1861.

Stations.	Amount.	Stations.	Amount.
	in.		in.
Guernsey .....	19.9	Apsley (Beds.) .....	17.6
Helston .....	23.8	Bedford .....	13.4
Truro .....	26.9	Laupeter .....	28.5
Teignmouth .....	14.4	Norwich .....	16.8
Exeter, St. Leonards .....	19.9	Diss .....	14.7
"    200, High Street .....	18.8	Belvoir Castle .....	17.2
Ventnor .....	17.0	Derby .....	17.3
Osborne .....	17.1	Holkham .....	14.4
Fairlight .....	19.0	Nottingham .....	17.5
Little Bridy .....	26.2	Hawarden .....	15.9
Petersfield .....	24.6	Liverpool .....	16.4
Barnstaple .....	25.0	Manchester .....	22.7
Aldershot Camp .....	15.3	Wakefield .....	17.9
Clifton .....	22.0	Kingsley Parsonage, Frod- sham .....	22.8
Greenwich .....	13.4	Leeds .....	17.2
St. John's Wood .....	12.7	Stonyhurst .....	34.2
Guildhall .....	13.3	York .....	16.5
Whitehall .....	13.1	Ben Rhydding .....	20.6
Camden Town .....	15.2	Otley .....	20.3
Battersea .....	15.0	Thelwall .....	22.0
Leyton .....	13.9	Scarborough .....	13.1
Rose Hill (Oxford) .....	18.1	Isle of Man .....	29.1
Oxford .....	17.0	St. Paul's Parsonage .....	27.4
Great Berkhamstead .....	17.2	Carlisle .....	19.7
Hartwell House .....	14.0	Bywell .....	21.0
"    Rectory .....	13.2	Allenheads .....	35.9
Royston .....	13.9	North Shields .....	18.2
Gloucester .....	16.4	High House (Alnwick) .....	20.9
Cardington .....	14.5		

The temperature of vegetation, as indicated by a thermometer placed on grass, was below  $40^{\circ}$  on 12 nights, and above  $40^{\circ}$  on 82 nights; the lowest was  $31^{\circ}8$  in September, and the highest  $57^{\circ}0$  in July.

The mean temperature of the air at Greenwich for the three months ending August, constituting the three summer months, was  $61^{\circ}0$ , being  $1^{\circ}0$  above the average of the preceding 90 years.

1861. Months.	Temperature of								Water of the Thames	Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.		
	Air.		Evaporation.		Dew Point.		Air— Daily Range.			Mean.	Diff. from Average of 20 Years.	Mean.	Diff. from Average of 20 Years.	
	Mean.	Diff. from Average of 90 Years.	Mean.	Diff. from Average of 20 Years.	Mean.	Diff. from Average of 20 Years.	Mean.	Diff. from Average of 20 Years.						
July .....	60.9	-0.5	1.0	57.1	-0.5	53.7	-0.2	18.9	-1.7	65.5	.413	-0.004	4.6	0.0
Aug. ....	63.2	+2.5	+1.9	58.9	+1.4	55.2	+1.1	21.8	+2.4	65.6	.436	+0.014	4.9	+0.2
Sept. ....	57.1	+0.7	+0.2	53.8	-0.1	50.7	-0.4	20.1	+1.6	61.9	.370	-0.012	4.1	-0.1
Mean.....	60.4	+0.9	+0.4	56.6	+0.3	53.2	+0.2	20.3	+0.8	64.3	.406	-0.001	4.5	0.0

  

1861. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Hori- zontal Move- ment of the Air.	Reading of Thermometer on Grass.				
	Mean.	Diff. from Average of 20 Years.	Mean.	Diff. from Average of 20 Years.	Mean.	Diff. from Average of 20 Years.	Amnt.	Diff. from Average of 46 Years.		Number of Nights it was			Low- est Read- ing at Night.	High- est Read- ing at Night.
										At or below $30^{\circ}$ .	Be- tween $30^{\circ}$ and $40^{\circ}$ .	Above $40^{\circ}$ .		
July .....	78	+ 2	In. 29.606	In. -1.08	Gr. 526	Gr. - 2	In. 2.2	In. -0.5	Miles. 277	0	0	31	42.0	57.0
Aug. ....	76	- 1	29.865	+0.77	528	0	0.6	-1.8	270	0	3	28	39.7	55.0
Sept. ....	79	- 2	29.717	-0.12	532	- 2	1.5	-1.0	215	0	9	21	31.8	56.3
Mean.....	78	- 3	29.729	-0.78	529	- 1	Sum 4.3	Sum -3.3	Mean 254	Sum 0	Sum 12	Sum 80	Lowest 31.8	Highest 57.0

Note.—In reading this table it will be borne in mind that the sign (—) minus signifies below the average, and that the sign (+) plus signifies above the average.

ENGLAND.—Meteorological Table, Quarter ended 30th September, 1861.

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermometer.	Lowest Reading of the Thermometer.	Range of Temperature in the Quarter.	Mean Monthly Range of Temperature.	Mean Daily Range of Temperature.	Mean Temperature of the Air.	Mean Degree of Humidity.
Guernsey .....	29.530	73.0	48.0	25.0	19.6	8.9	58.2	88
Exeter .....	29.508	80.6	42.1	38.5	29.8	14.6	59.9	83
Ventnor .....	—	71.0	47.0	24.0	19.8	8.8	60.8	—
Barnstaple .....	29.493	81.3	40.2	41.1	30.1	14.6	59.3	88
Royal Observatory .....	29.503	89.3	37.7	51.6	38.1	20.3	60.4	77
Royston .....	29.495	85.2	41.6	43.6	33.3	18.2	59.0	79
Lampeter .....	29.469	75.0	34.0	41.0	32.2	17.6	57.2	85
Norwich .....	29.443	87.0	38.3	48.7	35.5	17.2	60.1	81
Belvoir Castle .....	29.456	80.0	36.0	44.0	34.4	18.1	58.2	76
Liverpool .....	29.459	75.7	46.6	29.1	21.9	10.0	58.8	78
Wakefield .....	29.442	82.2	33.0	49.2	42.1	17.9	58.7	81
Leeds .....	29.434	80.0	35.0	45.0	35.3	12.6	57.5	75
Stonyhurst .....	29.382	75.7	39.5	36.2	30.1	14.1	56.8	83
Scarborough .....	29.404	73.0	40.0	33.0	24.6	10.5	57.0	81
Isle of Man .....	29.390	71.2	41.4	29.8	—	—	59.1	92
North Shields .....	29.421	75.2	40.3	34.9	26.9	12.9	57.8	88

  

NAMES OF STATIONS.	WIND.				Mean Amount of Cloud.	RAIN.		
	Mean estimated Strength.	Relative Proportion of				Number of Days on which it fell.	Amount collected.	
		N.	E.	S.				W.
Guernsey .....	1.7	5	3	10	11	4.0	45	7.2
Exeter .....	1.0	4	2	12	13	6.3	59	7.1
Ventnor .....	—	2	2	8	18	—	42	6.7
Barnstaple .....	1.8	3	3	12	11	5.6	57	12.5
Royal Observatory .....	—	2	1	10	17	6.5	44	4.3
Royston .....	—	3	1	11	16	5.7	51	5.0
Lampeter .....	0.7	3	1	15	10	6.9	52	14.3
Norwich .....	1.3	—	—	—	—	6.0	31	7.2
Belvoir Castle .....	2.2	2	1	15	11	4.8	44	7.0
Liverpool .....	1.4	5	2	9	14	6.9	55	6.6
Wakefield .....	1.8	2	2	10	15	6.4	55	5.8
Leeds .....	2.0	4	5	11	11	7.4	55	8.0
Stonyhurst .....	0.8	3	3	8	15	8.1	80	17.4
Scarborough .....	3.0	2	0	11	17	—	27	6.0
Isle of Man .....	—	4	3	8	14	5.3	52	12.8
North Shields .....	2.1	7	2	5	15	6.6	70	6.7

Trade of United Kingdom, 1861-60-59.—Distribution of Exports from, United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (ex-duty) of Imports at Port of Entry, and therefore including Freight and Importer's Profit.

Merchandise (excluding Gold and Silver), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	First Six Months.					
	1861.		1860.		1859.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
<b>I.—FOREIGN COUNTRIES:</b>	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	4,718,	2,137,	5,531,	1,990,	4,921,	2,267,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	10,809,	9,795,	10,985,	10,079,	8,721,	8,498,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	12,676,	6,240,	11,510,	4,748,	11,681,	4,472,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	3,232,	3,785,	2,122,	2,721,	1,863,	2,556,
Avant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	6,452,	2,704,	6,886,	3,769,	5,358,	3,671,
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	204,	99,	73,	79,	127,	94,
Western Africa	419,	423,	649,	473,	374,	345,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Moorla Islands	—	23,	19,	56,	13,	249,
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	570,	1,074,	643,	896,	977,	1,459,
South Sea Islands	—	27,	—	3,	—	33,
China, including Hong Kong	5,642,	3,201,	5,526,	2,858,	5,071,	1,979,
United States of America	32,012,	5,434,	25,631,	9,486,	17,310,	11,784,
Mexico and Central America	271,	452,	245,	284,	206,	369,
Foreign West Indies and Hayti	1,728,	1,037,	1,426,	806,	1,179,	1,086,
South America, (Northern,) New Granada, Venezuela, and Ecuador	322,	730,	297,	482,	306,	524,
(Pacific,) Peru, Bolivia, Chili, and Patagonia	2,482,	1,308,	2,435,	1,339,	1,798,	204,
(ATLANTIC) Brazil, Uruguay, and Buenos Ayres	1,455,	3,505,	2,022,	3,164,	1,835,	2,776,
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	5,	3,	24,	—	30,	15,
<b>Total.—Foreign Countries</b>	<b>82,997,</b>	<b>41,980,</b>	<b>76,024,</b>	<b>43,233,</b>	<b>61,770,</b>	<b>43,081,</b>
<b>II.—BRITISH POSSESSIONS:</b>						
British India, Ceylon, and Singapore	7,722,	8,628,	7,382,	9,377,	5,862,	10,442,
Austral. Cols.—New South Wales and Victoria	2,462,	3,767,	2,411,	4,116,	2,056,	4,065,
"    "    So. Aus., W. Aus., Tasm., and N. Zea.	799,	1,070,	1,029,	913,	757,	893,
British North America	1,050,	1,698,	697,	1,522,	717,	1,752,
"    "    W. Indies with Btsh. Guiana & Honduras	2,577,	1,249,	2,758,	1,149,	2,340,	1,093,
Cape and Natal	494,	971,	760,	953,	603,	890,
St. W. Co. of Af., Ascension and St. Helena	84,	165,	66,	166,	95,	172,
St. Mauritius	1,567,	289,	1,087,	252,	1,130,	299,
Channel Islands	327,	326,	242,	338,	212,	316,
<b>Total.—British Possessions</b>	<b>16,082,</b>	<b>18,163,</b>	<b>16,438,</b>	<b>18,786,</b>	<b>13,772,</b>	<b>19,922,</b>
<b>General Total</b> .....£	<b>99,079,</b>	<b>60,143,</b>	<b>92,462,</b>	<b>62,019,</b>	<b>75,542,</b>	<b>63,003,</b>



IMPORTS. — (United Kingdom.) — First Eight Months, (January — August) 1861-60-59-58-7.—Computed Real Value (Ex-duty), at Port of Entry, (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.

(First Eight Months.) FOREIGN ARTICLES IMPORTED.	(000's omitted.)	1861.	1860.	1859.	1858.	1857.
		£	£	£	£	£
<b>RAW MATLS.—Textile.</b>	<b>Cotton Wool</b> .....	30,809,	28,911,	24,039,	22,291,	22,564,
	<b>Wool (Sheep's)</b> ..	6,455,	7,797,	6,981,	5,600,	6,653,
	<b>Silk</b> .....	5,428,	6,243,	6,965,	3,564,	9,486,
	<b>Flax</b> .....	1,474,	2,256,	2,145,	1,465,	2,065,
	<b>Hemp</b> .....	909,	835,	1,372,	876,	821,
	<b>Indigo</b> .....	1,993,	1,893,	1,602,	1,380,	1,558,
		47,068,	47,965,	43,104,	35,176,	43,147,
<b>" " Various.</b>	<b>Hides</b> .....	1,404,	2,085,	1,884,	1,272,	2,649,
	<b>Oils</b> .....	1,937,	2,259,	1,917,	1,961,	2,194,
	<b>Metals</b> .....	2,106,	2,460,	2,215,	2,139,	2,317,
	<b>Tallow</b> .....	1,174,	1,586,	1,150,	1,087,	1,390,
	<b>Timber</b> .....	5,214,	4,513,	3,826,	2,523,	3,691,
		11,835,	12,903,	10,992,	8,982,	12,271,
<b>" " Agrcoll.</b>	<b>Guano</b> .....	1,395,	923,	1,545,	2,976,	1,268,
	<b>Seeds</b> .....	1,679,	1,850,	615,	1,027,	1,238,
		3,074,	2,773,	2,160,	4,003,	2,506,
<b>TROPICAL, &amp; C., PRODUCE.</b>	<b>Tea</b> .....	4,219,	5,081,	3,741,	3,301,	3,346,
	<b>Coffee</b> .....	1,491,	1,428,	1,078,	1,221,	946,
	<b>Sugar &amp; Molasses</b>	9,487,	9,005,	8,189,	8,326,	11,366,
	<b>Tobacco</b> .....	713,	463,	420,	696,	927,
	<b>Rice</b> .....	1,024,	473,	284,	1,108,	957,
	<b>Fruits</b> .....	354,	320,	167,	184,	382,
	<b>Wine</b> .....	2,829,	3,096,	1,582,	1,391,	2,642,
	<b>Spirits</b> .....	1,084,	1,420,	1,279,	754,	2,107,
		21,201,	21,286,	16,740,	16,981,	22,673,
<b>FOOD</b> .....	<b>Grain and Meal</b> ..	24,693,	15,819,	12,118,	14,066,	11,667,
	<b>Provisions</b> .....	4,404,	3,693,	2,044,	2,184,	2,964,
		29,097,	19,512,	14,162,	16,250,	14,631,
<b>Remainder of Enumerated Articles</b> .....		2,312,	2,455,	2,134,	1,810,	2,665,
<b>TOTAL ENUMERATED IMPORTS</b> .....		114,588,	106,894,	89,292,	83,202,	97,883,
<b>Add for UNENUMERATED IMPORTS (say)</b>		28,647,	26,723,	22,323,	20,800,	24,471,
<b>TOTAL IMPORTS</b> .....		143,235,	133,617,	111,615,	104,002,	122,354,

EXPORTS. — (United Kingdom.) — First Nine Months, (January — September), 1861-60-59-8-7. — Declared Real Value at Port of Shipment of Articles of BRITISH and IRISH Produce and Manufactures Exported from United Kingdom.

(First Nine Months.) (Unit 000's omitted.) BRITISH PRODUCE, & C., EXPORTED.	1861.	1860.	1859.	1858.	1857.	
	£	£	£	£	£	
<b>MANFRS.—Textile.</b>	<b>Cotton Manufactures</b> ..	28,683,	30,947,	28,957,	24,212,	23,434,
	" <b>Yarn</b> .....	7,137,	7,378,	6,889,	7,009,	6,682,
	<b>Woolen Manufactures</b>	8,009,	9,463,	9,251,	7,278,	8,824,
	" <b>Yarn</b> .....	2,656,	2,893,	2,088,	2,097,	2,361,
	<b>Silk Manufactures</b> ..	1,593,	1,607,	1,627,	1,362,	2,243,
	" <b>Yarn</b> .....	214,	205,	157,	140,	301,
	<b>Linen Manufactures</b> ..	2,942,	3,466,	3,456,	3,000,	3,640,
	" <b>Yarn</b> .....	1,127,	3,169,	1,176,	1,261,	1,259,
		52,361,	57,328,	53,601,	46,359,	48,744,
<b>" Sewed.</b>	<b>Apparel</b> .....	1,462,	1,528,	1,540,	1,359,	1,583,
	<b>Haberdy. and Millry</b>	2,630,	3,113,	3,332,	2,620,	3,261,
		4,092,	4,641,	4,872,	3,979,	4,844,
<b>METALS</b> .....	<b>Hardware</b> .....	2,496,	2,768,	2,835,	2,372,	3,050,
	<b>Machinery</b> .....	3,120,	2,644,	2,739,	2,723,	2,911,
	<b>Iron</b> .....	7,909,	9,229,	9,813,	8,817,	10,760,
	<b>Copper and Brass</b> .....	1,743,	2,283,	1,927,	2,063,	2,333,
	<b>Lead and Tin</b> .....	1,359,	2,006,	2,045,	1,710,	2,133,
	<b>Coals and Culm</b> .....	2,745,	2,534,	2,582,	2,437,	2,449,
		19,372,	21,465,	21,941,	20,122,	23,636,
<b>Ceramic Manufcts.</b>	<b>Earthenware and Glass</b>	1,292,	1,595,	1,438,	1,303,	1,663,
<b>Indigenous Mnfrs.</b>	<b>Beer and Ale</b> .....	1,105,	1,571,	1,637,	1,447,	1,237,
	<b>Butter</b> .....	379,	465,	512,	382,	441,
	<b>Cheese</b> .....	95,	82,	91,	62,	88,
	<b>Candles</b> .....	215,	184,	136,	126,	224,
	<b>Salt</b> .....	297,	277,	200,	240,	284,
	<b>Spirits</b> .....	332,	230,	197,	158,	654,
	<b>Soda</b> .....	436,	753,	784,	587,	589,
		2,859,	3,562,	3,560,	3,002,	3,517,
<b>Various Manufcts.</b>	<b>Books, Printed</b> .....	330,	364,	343,	284,	323,
	<b>Furniture</b> .....	179,	166,	171,	194,	214,
	<b>Leather Manufactures</b>	1,545,	1,626,	1,441,	1,505,	1,769,
	<b>Soap</b> .....	170,	193,	158,	160,	186,
	<b>Plate and Watches</b> ..	331,	396,	359,	333,	385,
	<b>Stationery</b> .....	494,	572,	630,	581,	553,
		3,049,	3,317,	3,102,	3,057,	3,430,
<b>Remainder of Enumerated Articles</b> .....		3,309,	2,951,	2,560,	2,575,	3,027,
<b>Unenumerated Articles</b> .....		7,461,	6,865,	6,963,	5,913,	6,875,
<b>TOTAL EXPORTS</b> .....		93,795,	101,724,	98,037,	86,310,	95,736,

SHIPPING.—FOREIGN TRADE.—(United Kingdom.)—First Nine Months, (Jan.—Sept.), 1861-60-59-8.—Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.

(First Nine Months.)	1861.			1860.		1859.		1858.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
<b>ENTERED:—</b>									
<i>Vessels belonging to—</i>	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia .....	307	91,	297	305	88,	269	77,	143	41,
Sweden .....	786	129,	164	815	126,	693	114,	546	87,
Norway .....	2,278	477,	209	1,978	430,	1,969	433,	1,646	351,
Denmark .....	1,821	176,	97	2,200	213,	1,949	192,	1,724	172,
Prussia and Ger. Sts. ....	2,777	637,	230	2,861	598,	2,692	589,	2,303	517,
Holland and Belgium ....	1,184	162,	137	1,231	170,	1,241	173,	969	148,
France .....	1,344	107,	79	1,377	115,	1,929	156,	2,030	173,
Spain and Portugal .....	354	84,	238	299	80,	311	72,	777	198,
Italy & other Eupn. Sts.	724	198,	273	732	206,	467	131,	97	25,
United States .....	1,572	1,342,	854	1,020	991,	871	849,	1,042	967,
All other States .....	10	3,	330	12	3,	16	5,	15	6,
United Kingdm. & Depds. ....	13,157	3,406,	258	12,830	3,020,	12,407	2,791,	11,292	2,685,
<b>Totals Entered</b>	28,648	8,087,	285	27,426	7,226,	27,072	6,765,	25,236	6,441,
<b>CLEARED:—</b>									
Russia .....	304	89,	292	284	83,	282	80,	161	49,
Sweden .....	799	132,	165	828	129,	698	117,	639	112,
Norway .....	1,519	247,	160	1,256	228,	1,431	277,	1,070	204,
Denmark .....	2,377	232,	93	2,613	251,	2,201	218,	2,215	221,
Prussia and Ger. Sts. ....	3,832	707,	184	3,651	666,	3,757	691,	3,768	657,
Holland and Belgium ....	1,505	213,	141	1,493	237,	1,525	229,	1,613	262,
France .....	3,957	372,	94	2,858	303,	2,864	307,	3,369	355,
Spain and Portugal .....	317	84,	265	271	72,	277	67,	956	257,
Italy & other Eupn. Sts.	834	233,	280	806	232,	636	184,	120	32,
United States .....	1,225	1,071,	837	1,150	1,091,	903	859,	1,065	1,002,
All other States .....	20	6,	315	12	4,	16	5,	12	4,
United Kingdm. & Depds. ....	16,689	3,386,	203	15,222	3,296,	14,590	3,034,	14,988	3,155,
<b>Totals Cleared</b>	37,419	8,638,	238	33,954	8,256,	33,571	7,929,	33,603	7,780,

GOLD AND SILVER BULLION AND SPECIE.—IMPORTED AND EXPORTED.—(United Kingdom.)—Computed Real Value for the First Nine Months, (January—Sept.), 1861-60-59.

(000's at unit end omitted.)

(First Nine Months.)	1861.		1860.		1859.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
<b>Imported from:—</b>	£	£	£	£	£	£
Australia .....	4,889,	—	4,639,	1,	6,445,	1,
So. Amca. and W. Indies .....	1,139,	4,118,	919,	3,783,	1,477,	2,423,
United States and Cal. ....	28,	26,	3,791,	796,	6,465,	1,222,
France .....	6,056,	4,144,	9,349,	4,580,	14,387,	3,646,
Hanse Towns, Holl. & Belg. ....	2,471,	466,	92,	1,864,	879,	5,498,
Prtgl., Spain, and Gbrltr. ....	703,	456,	22,	922,	365,	2,525,
Mlta., Trky., and Egypt .....	17,	120,	14,	217,	81,	186,
China .....	42,	4,	31,	18,	317,	13,
West Coast of Africa	—	—	—	—	—	—
All other Countries....	73,	2,	72,	4,	71,	4,
<b>Totals Imported</b>	9,921,	5,223,	9,790,	7,625,	18,247,	11,897,
<b>Exported to:—</b>						
France .....	964,	908,	5,805,	433,	12,215,	307,
Hanse Towns, Holl. & Belg. ....	14,	701,	125,	469,	901,	928,
Prtgl., Spain, and Gbrltr. ....	674,	3,	896,	1,	423,	—
Ind. and China (via Egypt) .....	1,652,	1,612,	6,826,	903,	13,539,	1,235,
Danish West Indies....	581,	5,708,	1,076,	6,767,	234,	12,802,
United States .....	35,	33,	6,	22,	137,	6,
South Africa .....	7,037,	48,	7,	2,	10,	4,
Mauritius .....	85,	—	2,	—	2,	5,
Brazil .....	—	2,	—	—	—	1,
All other Countries....	18,	119,	342,	120,	69,	89,
<b>Totals Exported</b>	749,	80,	196,	34,	505,	31,
<b>Excess of Imports</b> ....	10,157,	7,602,	8,455,	7,849,	14,496,	14,173,
„ <b>Exports</b> ....	—	—	1,335,	—	3,751,	—
„ <b>Exports</b> ....	236,	2,379,	—	224,	—	2,276,

## REVENUE.—(UNITED KINGDOM.)—30TH SEPT., 1861-60-59-8.

Net Produce in YEARS and QUARTERS ended 30TH SEPT., 1861-60-59-8.

[Unit 000's omitted.]

QUARTERS, ended 30th Sept.	1861.	1860.	1861.		Corresponding Quarters.	
			Less.	More.	1859.	1858.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs .....	5,982,	5,888,	—	94,	6,576,	6,115,
Excise .....	4,221,	5,089,	868,	—	5,549,	5,085,
Stamps .....	2,013,	2,053,	40,	—	1,937,	1,831,
Taxes .....	160,	166,	6,	—	146,	141,
Post Office .....	870,	800,	—	70,	780,	745,
	13,246,	13,996,	914,	164,	14,988,	13,917,
Property Tax .....	991,	2,281,	1,290,	—	1,874,	2,454,
	14,237,	16,277,	2,204,	164,	16,862,	16,371,
Crown Lands .....	66,	65,	—	1,	62,	61,
Miscellaneous .....	298,	316,	18,	—	340,	532,
<b>Totals .....</b>	<b>14,601,</b>	<b>16,658,</b>	<b>2,222,</b>	<b>165,</b>	<b>17,264,</b>	<b>16,964,</b>
			NET DECR. £2,056,934			

  

YEARS, ended 30th Sept.	1861.	1860.	1861.		Corresponding Years.	
			Less.	More.	1859.	1858.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs .....	23,488,	23,396,	—	92,	24,809,	23,473,
Excise .....	18,624,	20,070,	1,446,	—	18,685,	17,731,
Stamps .....	8,426,	8,267,	—	159,	7,988,	7,728,
Taxes .....	3,130,	3,257,	127,	—	3,190,	3,136,
Post Office .....	3,470,	3,370,	—	100,	3,255,	3,025,
	57,138,	58,360,	1,573,	351,	57,927,	55,093,
Property Tax .....	11,133,	10,310,	—	823,	5,686,	7,853,
	68,271,	68,670,	1,573,	1,174,	63,613,	62,946,
Crown Lands .....	292,	290,	—	3,	282,	277,
Miscellaneous .....	1,243,	1,850,	607,	—	2,096,	1,939,
<b>Totals .....</b>	<b>69,806,</b>	<b>70,810,</b>	<b>2,180,</b>	<b>1,177,</b>	<b>65,991,</b>	<b>65,161,</b>
			NET DECR. £1,003,817			

REVENUE (UNITED KINGDOM).—QUARTER ENDED 30TH SEPT., 1861:—  
APPLICATION.

An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 30th September, 1861; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.

## Received:—

Surplus Balance beyond the Charge of the Consolidated Fund for the Quarter ended 30th June, 1861, viz.:—	£
Great Britain .....	—
Ireland .....	£839,748
	839,748
Income received in the Quarter ended 30th September, 1861, as shown on preceding page .....	14,601,232
Amount raised per Act 23 and 24 Victoria, cap. 103, on account of Fortifications, &c. ....	240,000
Amount received in the Quarter ended 30th September, 1861, in repayment of Advances for Public Works, &c. ....	288,490
	£15,069,470
Balance, being the deficiency on 30th September, 1861, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 31st December, 1861, and for which Exchequer Bills (Deficiency) will be issued in that Quarter.....	3,962,012
	£19,932,082

## Paid:—

Amount applied out of the Income for the Quarter ended 30th September, 1861, in redemption of Exchequer Bills (Deficiency), for the Quarter ended 30th June, 1861 .....	£	2,065,934
Amount applied out of the Income to Supply Services in the Quarter ended 30th September, 1861 .....		10,485,835
Charge of the Consolidated Fund for the Quarter ended 30th September, 1861, viz.:—		
Interest of the Permanent Debt .....	£5,528,862	
Terminable Debt .....	653,732	
The Civil List .....	100,897	
Other Charges on Consolidated Fund .....	621,349	
Advances for Public Works, &c. ....	300,188	
	7,105,928	
Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 30th September, 1861, viz.: .....		274,985
		£19,932,082



CORN.—Gazette Average Prices (ENGLAND AND WALES) Third Quarter of 1861.

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday 1861.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
July 6 .....	s. d. 50 10	s. d. 31 9	s. d. 26 .	s. d. 35 9	s. d. 43 11	s. d. 39 11
" 13 .....	50 -	30 4	24 6	33 -	43 4	42 -
" 20 .....	50 7	30 3	25 9	38 3	42 8	37 10
" 27 .....	51 2	30 8	26 10	38 5	42 10	40 1
Average for July.....	50 7	30 9	25 9	36 4	42 11	39 11
August 3 .....	51 3	28 3	24 11	39 3	42 1	39 8
" 10 .....	51 -	30 1	25 4	36 7	43 8	38 -
" 17 .....	50 3	30 -	25 11	37 5	42 7	37 5
" 24 .....	50 3	32 10	26 1	35 10	43 5	35 5
" 31 .....	52 0	34 1	24 6	37 5	41 -	34 10
Average for August....	51 -	31 -	25 4	37 3	43 1	36 11
Sept. 7 .....	53 1	35 11	23 7	37 2	44 4	35 3
" 14 .....	51 6	36 4	22 11	33 4	41 11	38 -
" 21 .....	55 11	36 0	22 10	31 11	41 11	38 9
" 28 .....	56 0	37 4	22 10	35 0	42 4	40 10
Average for September..	55 -	36 7	23 -	37 -	42 7	38 2
Average for the Quarter ..	52 1	32 7	24 9	36 4	42 11	38 3

RAILWAYS.—PRICES, July—September,—and TRAFFIC Jan.—September, 1861.

Total Capital Expended Mlns.	Railway.	For the (£100). Price on			Miles Open.		Total Traffic first 39 Weeks. unit 00's omitted		Traffic pr. Mile pr. Wk first 39 Wks.		Dividends per Cent. for Half Years.		
		1 Sp.	1 Au.	1 Jy.	'61.	'60.	'61.	'60.	'61.	'60.	30 Jan. '61.	31 Dec. '60.	30 Jan. '60.
		s. d.	s. d.	s. d.	No.	No.	£	£	£	£	s. d.	s. d.	s. d.
44.0	Lond. & N.Westn.	93	92½	93½	1,031	1,004	3,288	3,300	81	84	47 6	52 6	50 -
34.7	Great Western .....	70½	70¾	71½	761	757	1,677	1,651	56	56	22 6	35 -	30 -
13.3	Great Northern.....	109	107	107	330	330	1,012	996	78	77	47 6	63 9	45 -
11.3	Eastern Counties.....	50½	50	49¾	499	499	998	992	51	51	16 3	23 9	21 3
9.9	Brighton .....	117½	117	120	241	223	709	657	75	75	50 -	70 -	50 -
13.9	South-Eastern .....	83½	81¾	81¼	306	306	846	864	70	72	41 8	60 -	46 8
12.3	South-Western .....	95½	95½	95¼	400	394	772	728	50	47	40 -	52 6	42 6
139.4		88½	88	88	3,568	3,513	9,302	9,188	66	66	38 -	51 1	40 9
21.4	Midland.....	128½	122½	120½	614	614	1,532	1,530	64	64	62 6	70 -	65 -
19.2	Lancsh. and York.	112	111	111½	395	395	1,476	1,463	95	95	55 -	60 -	55 -
11.6	Sheffield and Man.	47	45	47½	291	291	492	484	43	41	7 6	15 -	10 -
23.4	North-Eastern .....	105	105½	105½	789	764	1,523	1,479	50	52	52 6	57 6	52 6
4.5	South Wales .....	64	66	61½	171	171	274	281	41	42	27 6	30 -	20 -
80.1		91	90	89½	2,260	2,235	5,297	5,237	58½	59	41 -	46 6	40 6
9.0	Caledonian .....	106½	100	98	219	219	609	583	71	68	50 -	55 -	45 -
5.2	Gt. S. & Wn. Irlnd.	104	106	106	329	329	318	305	25	24	50 -	50 -	50 -
233.7	Gen. aver. ....	91½	90¾	90½	6,376	6,296	15,526	15,313	61	60	40 9	49 7	41 7

Consols.—Money Prices 2nd September, 92½ to ¾, —1st August, 90 to ½, —1st July, 89½ to ¾.  
Exchequer Bills. " 5s. to 1s. pm. " 2s. ds. " 5s. dis.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the THIRD QUARTER (July—Sept.) of 1861.

ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
1	2	3	4	5	6	7
Liabilities.	DATES.	Assets.			Notes in Hands of Public.	Minimum Rates of Discount at Bank of England.
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.	(Col. 1 minus col. 16.)	
Mlns. £	1861.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1861. Per ann.
25,69	July 3 .....	11,02	3,46	11,15	20,06	16 May 6 p. ct.
25,12	" 10 .....	11,02	3,63	10,77	20,16	
25,36	" 17 .....	11,02	3,63	10,71	20,45	
26,00	" 24 .....	11,02	3,63	10,87	20,15	
25,52	" 31 .....	11,02	3,63	11,35	20,29	
26,13	Aug. 7 .....	11,02	3,63	11,48	20,36	1 Aug. 5 "
26,39	" 14 .....	11,02	3,63	11,74	20,10	15 " 4½ "
26,64	" 21 .....	11,02	3,63	11,99	20,02	
26,80	" 28 .....	11,02	3,63	12,24	19,75	29 " 4 "
26,97	Sept. 4 .....	11,02	3,63	12,32	20,30	
27,48	" 11 .....	11,02	3,63	12,83	19,85	
27,82	" 18 .....	11,02	3,63	13,17	19,83	19 Sept. 3½ "
28,08	" 25 .....	11,02	3,63	13,43	19,97	

BANKING DEPARTMENT.

Liabilities.												Assets.				Totals of Liabilities and Assets.
Capital and Rest.		Deposits.			Seven Day and other Bills.	DATES. (Wdnesdays.)	Securities.		Reserve.		Totals of Liabilities and Assets.					
Capital.	Rest.	Public.	Private.	Government.			Other.	Notes.	Gold and Silver Coin.							
Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1861.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £					
14,55	3,31	7,29	12,09	,62	July 3	9,98	21,40	5,63	,85	37,86						
14,55	3,34	3,25	13,91	,62	" 10	9,92	19,90	5,26	,90	35,68						
14,55	3,38	2,95	13,32	,65	" 17	9,53	19,53	4,91	,87	34,85						
14,55	3,40	4,12	11,98	,63	" 24	9,61	18,85	5,37	,85	34,69						
14,55	3,41	3,70	12,19	,70	" 31	9,47	18,55	5,71	,84	34,56						
14,55	3,52	3,84	11,82	,74	Aug. 7	9,90	17,91	5,78	,88	34,47						
14,55	3,53	3,93	12,09	,73	" 14	10,00	17,63	6,29	,90	34,83						
14,55	3,53	4,70	11,84	,72	" 21	10,13	17,74	6,62	,84	35,35						
14,55	3,48	4,06	12,77	,67	" 28	10,13	17,40	7,14	,86	35,54						
14,55	3,78	4,28	12,19	,71	Sept. 4	10,36	17,70	6,67	,79	35,53						
14,55	3,79	4,87	12,36	,70	" 11	10,45	17,37	7,63	,82	36,27						
14,55	3,79	5,06	12,44	,70	" 18	10,45	17,29	7,99	,83	36,55						
14,55	3,80	5,81	11,96	,69	" 25	10,45	17,44	8,11	,81	36,81						

CIRCULATION.—COUNTRY BANKS.

Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the THIRD QUARTER (July—September) of 1861; and in SCOTLAND and IRELAND, at the Four Dates, as under.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.			
DATES.	Private Banks. (Fixed Issues, 4'35.)	Joint Stock Banks. (Fixed Issues, 3'30.)	TOTAL. (Fixed Issues, 7'65.)	Four Weeks ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2'75.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6'35.)	
	Mlms.	Mlms.	Mlms.		Mlms.	Mlms.	Mlms.	Mlms.	Mlms.	Mlms.	
1861.	£	£	£	1861.	£	£	£	£	£	£	
July 6	3,03	2,75	5,78								
" 13	3,10	2,77	5,87								
" 20	3,01	2,76	5,77								
" 27	2,98	2,73	5,71	July 27	1,49	2,59	4,08	2,98	2,63	5,61	
Aug. 3	2,98	2,70	5,68								
" 10	2,99	2,69	5,68								
" 17	2,97	2,71	5,68								
" 24	2,96	2,71	5,67	Aug. 24	1,48	2,57	4,05	2,93	2,59	5,52	
" 31	2,97	2,71	5,68								
Sept. 7	3,01	2,72	5,73								
" 14	3,05	2,76	5,81								
" 21	3,12	2,83	5,95	Sept. 21	1,42	2,63	4,05	2,95	2,64	5,59	

FOREIGN EXCHANGES.—Quotations as under, LONDON on Paris, Hamburg & Calcutta; —and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.

DATES.	Paris.			Hamburg.			New York.	Calcutta.		Hong Kong.	Sydney.	Standard Silver in bars in London.	
	London on Paris.	Bullion as arbitrated.		London on Hamburg.	Bullion as arbitrated.			India House.	At Calcutta on London.				
		3 m. d.	Agnt. Engd.		For Engd.	3 m. d.							Agnt. Engd.
1861.		pr. ct.	pr. ct.	3 p.	13-10½	pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
July 6 ..	25·75	—	0·4	3 p.	13-10½	—	0·7	106	26	25	55	1 p.	60½
" 20 ..	·72	—	0·4	4 "	·10½	—	0·1	107	"	"	"	"	60½
Aug. 10 ..	·72	—	0·4	3 "	·10½	—	0·7	108	"	24½	"	"	"
" 24 ..	·77	—	0·6	3 "	·11	—	0·8	107½	"	"	"	"	"
Sept. 7 ..	·75	—	0·4	5 "	·10½	—	0·6	"	"	"	"	"	"
" 21 ..	·72	—	0·6	4 "	·10½	—	0·6	108	"	"	"	"	"

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