As a very full Report, both Financial and Statistical, will have to be made at the next Annual Meeting, the Directors abstain from further observations now. Meanwhile, they are glad to be able to say there is every indication that the laborious investigation about to be entered upon, will lead to results of a very satisfactory character.

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OF THE

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REPORT *of the* Council *for the* Financial Year *ended* 31st *December,* 1861, *and for the* Sessional Year *ended* ... *and* 1862, *presented at the* Twenty-Eighth ... years, afforded ... distinguished talents."

of the Statistical Society, ... Science and Statistics, at the 12, *St. James's Square,* ... association, at Manchester, in September *the* Proceedings *of* the Presidency of one of the Honorary ... ciety (William Newmarch, F.R.S.), and the Right Hon. Sir Jo... section were generally considered to have been ... ly successful.

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At the present ti... ence was held in August last, in Dublin, and by its
—(including 70 I... still further the objects and influence of this new
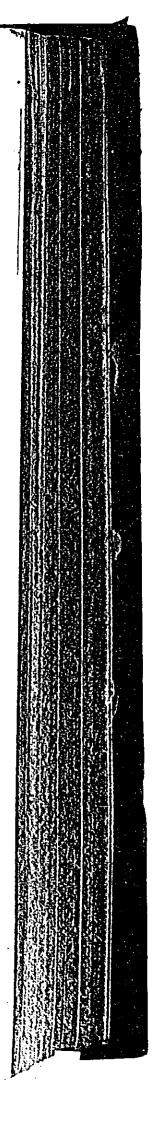Members)—at the Association.
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The Surplus of ...
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Balance Sheet of A... e practical method by which the resources of the
The finances of ... ct bodies at present engaged in the cultivation of
during the past year, ... the large field of Social Science—as, for example,
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ness, and expand the ... it effective and least expensive form, for the
resources may, in time, y of the particular pursuit of each, but also
other forms. In the me... pursuits which form essential parts of the
duty of the Council so to
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and independence cultivate t... ation from the foundation of the Statistical
The Monthly Meetings h... pletely to accomplish the objects it has
been well attended. The dist... ne past the investigation of Social
growing in attractiveness and im... is carefully observed and recorded, has

The following is the List of Papers which have been read from March, 1861, to March, 1862, viz.:—

March, 1861.—*M. de Parieu.*—On the Taxation of Enjoyments (Jouissances). Communicated by Mr. Hendriks.

April, „ *Mr. W. L. Sargant.*—On the Fallacy of Mr. Warburton's Argument in favour of an Indiscriminating Income Tax.

„ „ *Adjourned Discussion* on Mr. Sargant's Paper, at a Special Meeting.

„ „ *M. Von Buschen.*—On Serfdom in Russia.

„ „ *Mr. Purdy.* — On the Earnings of Agricultural Labourers in England and Wales.

⸱le.—Statistical Analysis of the Patients in
WILLIAM AUGUST *⸱Dital*, 1854-60.
PHILIP ROSE, ESQ., *Deputy* the Proceedings of Section (F)

THOMAS BODDINGTON, ESQ.	JAM*.ation*, at Manchester, 1861.
CHARLES BISCHOFF, ESQ.	SIR W.*.e* Growth of the Human
JOHN WHITE CATER, ESQ.	W. ANDE*Weight*, in Males, from
CHARLES CHATFIELD, ESQ.	RALPH CHA
SIR JAMES BULLER EAST, BART., M.P.	GEORGE RUS.
NATHANIEL GOULD, ESQ.	THOMAS GODF.*in consequence of the*
ROBERT A. GRAY, ESQ.	CAPT. LOUIS S*Royal Highness the*
CHARLES THOMAS HOLCOMBE, ESQ.	COLONEL CHARL
RICHARD HARMAN LLOYD, ESQ.	RIGHT HON. SIR*atistics of Sweden,*
JOSHUA LOCKWOOD, ESQ.	

s and Economical
s and other Coun-

CATALOGUE OF THE LIB urces of Popular
es.

OF THE

pril (1861), on the
STATISTICAL SOCIETY OF ned Discussion at

Price, to Fellows, 2s. 6d., to the Public, ultivators of know-
imely death, on the
the Prince Consort.

This **CATALOGUE** combines the advantages on of the Statistical
and Classified methods of Cataloguing. It f't constant interest in
Index to the Contents of the Library. Meetings; and in 1860
udgment, the duties of
International Statistical
f the Prince Consort was

LONDON :

JOHN WILLIAM PARKER AND SON, 4 held on the 20th December
nth having been postponed
ed, and a copy was forwarded
⁎⁎ *The above Work is sold; to* Eton, Bart., M.P.), to the proper
Rooms, No. 12, St. Ja

Resolved,—" That the Council of the *Statistical Society* are " deeply sensible of the magnitude of the calamity which has " suddenly fallen upon our Queen and Country by the death of HIS " ROYAL HIGHNESS THE PRINCE CONSORT ; they feel that in him " the Nation has lost a promoter of Science, Art, Literature, and " every Social Improvement; as enlightened as he was zealous, and " as judicious as he was persevering.

" The Council also feel that by the lamented death of HIS " ROYAL HIGHNESS, Statistical Science, and kindred branches of " knowledge, have been deprived of a friend who displayed extensive " and exact acquaintance with this particular class of Study; and " who, as the active Patron of this Society for twenty years, afforded " it the support of his exalted position and distinguished talents."

The Section (F) of Economic Science and Statistics, at the Meeting of the British Association, at Manchester, in September last, assembled under the Presidency of one of the Honorary Secretaries of this Society (William Newmarch, F.R.S.), and the proceedings of the Section were generally considered to have been more than ordinarily successful.

The Fifth Meeting of the National Association for the Promotion of Social Science was held in August last, in Dublin, and by its results advanced still further the objects and influence of this new and enterprising Association.

The Sixth Meeting of the National Association will be held in London, in June next, in connexion with a visit to this country of the Congrès de Bienfaisance, meetings of which were held in 1855 in Paris, in 1856 in Brussels, and in 1857 in Frankfort.

It will, doubtless, be a leading object with the Council of this Society, to be elected to-day, to afford all possible facilities to the proceedings of both of the important bodies who will constitute the assembly in June.

It may, perhaps, happen that the proceedings of those meetings may indicate some practical method by which the resources of the six or seven distinct bodies at present engaged in the cultivation of different sections of the large field of Social Science—as, for example, Amendment of the Law, Sanitary Science, Actuarial Science, Statistics, Juridicial Science, and Political Economy,—may be concentrated in the most effective and least expensive form, for the advancement, not only of the particular pursuit of each, but also of the other collateral pursuits which form essential parts of the general subject.

It must be no small gratification to the Fellows to find that the lapse of a single generation from the foundation of the Statistical Society, has sufficed so completely to accomplish the objects it has pursued that for some time past the investigation of Social Phenomena by means of Facts carefully observed and recorded, has

become one of the divisions of knowledge most ardently and most generally cultivated. The commencement of the enterprise which we now see in full career, had its difficulties and perhaps its errors; but the progress made has not met with any serious interruption. It has gone on steadily from year to year, and it has advanced from one higher ground to another, because it has faithfully followed the sure path of evidence and induction, and has studiously avoided the brilliant but false lights of over-hasty generalization.

The Statistical Society may fairly claim an honourable place in the history of Social Progress in this country during the last thirty years; and so long as it succeeds in uniting a regard for the cautions of experience with a readiness to consider favourably suggestive plans of future advancement, it will not fail to uphold its reputation and enlarge its usefulness.

The CHAIRMAN moved the adoption of the Report, together with the Abstract of Receipts and Payments, and the Auditors' Report.

The Resolution, having been seconded, was carried unanimously.

A Ballot was then taken for the election of a President, Council, and Officers, for the ensuing twelvemonths, and the following was declared to be the List, viz. :—

COUNCIL AND OFFICERS FOR 1862-63.

President.
RIGHT HON. SIR JOHN S. PAKINGTON, BART., M.P., G.C.B.

Council.

Charles Babbage, M.A., F.R.S.	Frederick Hendriks
Edward Baines, M.P.	James Heywood, F.R.S.
James Bird, M.D.	*Sir Rowland Hill, K.C.B.*
Sir John Peter Boileau, Bart., F.R.S.	William Barwick Hodge
Swinton Boult	Charles Jellicoe
Samuel Brown	Leone Levi, F.S.A.
William Camps, M.D.	William Golden Lumley, LL.M.
David Chadwick	The Rt. Hon. Holt Mackenzie, F.R.G.S.
The Right Hon. T. S. Sotheron Estcourt, M.P.	*Matthew Henry Marsh, M.P.*
	William Newmarch, F.R.S.
William Farr, M.D., D.C.L., F.R.S.	The Right Hon. Sir John Somerset
Humphrey William Freeland, M.P.	Pakington, Bart., M.P., G.C.B.
Sir Francis Henry Goldsmid, Bart., M.P., Q.C.	Frederick Purdy
	Rev. J. E. Thorold Rogers, M.A.
William Augustus Guy, M.B.	Right Hon. Lord Stanley, M.P.
James Thomas Hammack	Colonel W. H. Sykes, M.P., F.R.S.
The Right Hon. the Earl of Harrowby.	Rev. Edgell Wyatt-Edgell.

The names of the New Members of the Council are given in Italics.

Treasurer.
William Farr, M.D., D.C.L., F.R.S.

Honorary Secretaries.
William Newmarch, F.R.S. | William Augustus Guy, M.B.
William G. Lumley, LL.M.

A vote of thanks to the retiring President, and Council, for their services during the past year, having been carried,—

The President, in returning thanks, said that he had been requested to give the Society some good advice. For his own part however, he thought there was no public body with which he was acquainted that stood less in need of it. The sound financial condition of the Society, alluded to in the Report, was an evidence of the efficiency with which it was conducted. Referring to the much lamented death of the late Prince Consort, he observed that this Society had special reason to regret his loss, which was every day more and more felt. In conclusion, the President expressed his belief that the Society was one of the most useful in the country, and he sincerely hoped that it would continue to progress and prosper.

Colonel Sykes then moved, and Mr. E. Osborn Smith seconded, a vote of thanks to the Honorary Secretaries, and especially to the Editor of the *Journal*, for the efficient and courteous manner in which the duties that devolve upon them are discharged.

The Resolution, which was carried unanimously, was briefly acknowledged by Mr. Newmarch.

A vote of thanks to the Chair terminated the proceedings.

The following is the Report of the Auditors:—

> " STATISTICAL SOCIETY,
> " 12, ST. JAMES'S SQUARE.
> " *London, 28th January,* 1862.

" The Auditors appointed to examine the Accounts of the Statistical Society for the year 1861, herewith

" REPORT :—

" That they have carefully compared the Entries in the Books with the several Vouchers for the same, from the 1st January, 1861 to the 31st December, 1861, and find them perfectly correct; showing the *Receipts* (including a Balance of 215*l.* 15*s.* 8*d.* from 1860) to have been 970*l.* 11*s.* 1*d.*, and the *Payments* 744*l.* 10*s.* 2*d.*, leaving a Balance in favour of the Society of 226*l.* –*s.* 11*d.*

" They have also had laid before them an Estimate, made by the Council, of the *Assets* and *Liabilities* of the Society, the *former* amounting to 1,814*l.* –*s.* 11*d.*, and the *latter* to 136*l.* 5*s.* 9*d.*,—showing a Balance in favour of the Society of 1,677*l.* 15*s.* 2*d.*
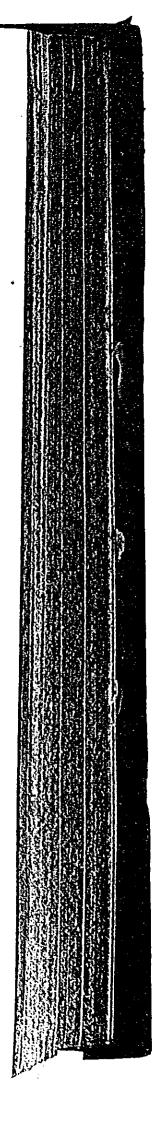
" They further find that at the end of 1860, the number of Fellows was 374, of whom 23 Died, Withdrew, or became Defaulters, and 13 new Fellows were elected during the year 1861, leaving 364 as the number on the list on the 31st December, 1861.

(Signed)   " ALEX. M. TULLOCH,
               " CORNELIUS WALFORD,   } *Auditors."*
               " FREDERICK PURDY.

The statement of Receipts and Payments, and Assets and Liabilities, is as follows:—

(I.)—Receipts *and* Payments *of the* Statistical Society *for the* Year 1860.

RECEIPTS.	£	s.	d.	PAYMENTS.	£	s.	d.
Balance in Bank, 31st December, 1860..	215	15	8	Rent............................	75	–	–
				Salaries	180	–	–
1861.				Printing *Journal*	309	12	6
Dividends.........................	25	17	10	Advertising	26	15	6
Subscriptions:—				Library	19	10	4
277 for 1861 at £2 2s. ...£581 14 –				Index and Catalogue	10	–	6
1 „ 1862 „ 2 2s... 2 2 –				Stationery and Sundry Printing	30	6	9
Arrears—9 „ 2 2s... 18 18 –				Postage and Receipt Stamps	16	16	–
———— 602 14 –				Incidental Expenses	22	–	1
				Ordinary Meetings...............	23	2	10
Composition	21	–	–	Fire and Light	4	4	8
Journal Sales	71	7	7	Furniture and Repairs	11	11	11
Advertisements in *Journal*............	30	16	–	Special Outlays..................	15	10	–
					741	10	9
				Balance carried to 1862..	229	–	11
	£970	**11**	**1**		**£970**	**11**	**1**

(II.)—Balance Sheet *of* Assets *and* Liabilities *on* 31st December, 1861.

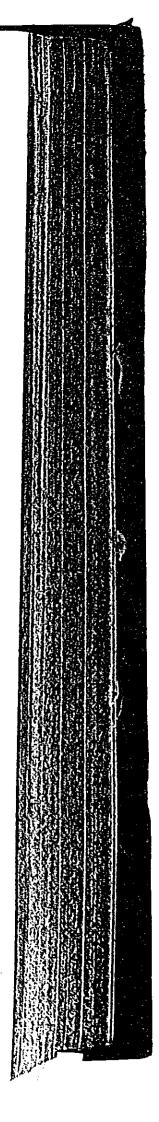| LIABILITIES.	£	s.	d.	£	s.	d.	ASSETS.	£	s.	d.
Printing *Journal* for Dec., 1861	102	17	0				Cash Balance	229	–	11
Stationery and Sundry Printing	23	15	–				Investments:—			
Advertising Dec., *Journal* ..	5	9	–				3 per Cent. Consols ... cost £300			
Index to *Journal*, vol. xxiv, 1861	4	4	–				New 3 per Cents. ...... „ 507			
				136	5	9	———— 807 – –			
							Property (Estimated Value):—			
Balance in favour of Society	1,677	15	2				Books in Library.......... £400			
							Journals in Stock 200			
							Furniture 100			
							———— 700 – –			
							Arrears due and recoverable (say) ..	21	–	–
	£1,814	**–**	**11**					**£1,814**	**–**	**11**

On the Vital Statistics *of* Sweden, *from* 1749 *to* 1855.

By Frederick Hendriks, Esq.

[Read before the Statistical Society of London, 21st January, 1862.]

Nearly a hundred years have now passed since the Vital Statistics of Sweden first attracted the attention of English writers on social economy and statistics. Even before then it was known, to the more scientific of such writers, that life tables based upon public mortuary registers showing only the numbers of the dying at all ages are very defective, and that the character of correctness can be attributed exclusively to tables which indicate the ratios borne by the numbers dying to those living, at all ages, as ascertained by careful enumerations or censuses of the people. The amount of prejudice which then existed against the obtaining and publishing of such enumerations in the more important countries of Europe can be easily understood when we observe how much opposition to useful statistical inquiries is still often experienced. But present difficulties of this kind, as, for example, those which prevent agricultural statistics being upon a proper footing, are but slight when compared with those which had to be faced by the administrative system of last century in its attempts at the collection of statistics. The exceptional circumstances under which Sweden, greatly to her honour, led the way in establishing a correct and valuable statistical record of progress in all that chiefly concerns population, will be presently explained.

The extent of territory embraced within the limits of Sweden and its then dependent province of Finland, was about one and a-half times the size of Great Britain and Ireland, but with a population no larger, at the medium of the first seven censuses of 1757 to 1775, than 2,310,160 souls. This might, until the facts be examined, seem to indicate so extreme a thinness of population as to render it doubtful whether the enumerations of its peculiarly dispersed villages and isolated families were strictly accurate. But fiscal considerations alone, in a country so circumstanced in respect of the almost total absence of great towns, would have called for a very vigilant eye being kept in the respective provinces, however remote, over the widely-scattered elements of the body politic. With such considerations were combined others of a special character. The Swedish Government, much alarmed by the frequent occurrence of famine and pestilence, had the strongest possible desire to see population increase, and fostered its growth by all legislative means within its

power. It appears not to have shrunk from facing facts. The advantages of spreading information and of investigating truths by means of well-directed statistical inquiry thus came to be recognized at a comparatively early period in Sweden. The collection of statistics, particularly those of population, was much aided by the clergy. The functions of the village pastor were in no country of Europe more mixed up with the every-day life of his flock than in Sweden. It devolved upon him not only to make frequent inspections of all households upon occasions of confirmation or first communion, but also to post up (if the commercial idiom be allowed us in describing it) the parish ledger of population, including entries for all the living within his spiritual, and in certain respects civil, jurisdiction, as well as all particulars regarding births, deaths, and marriages, emigrants and immigrants, and their conjugal condition, ages, places of birth, &c.

There are, doubtless, many continental countries in which as accurate, and, in some regards, more minute records have been kept of each individual member of the community. In plain words, such is the case wherever the spy or secret-police system, or a depressing centralization prevails. But such countries have not generally been disposed either to collect, or to publish for review and discussion, statements illustrating the causes of fluctuations in the population. It is true that during the present generation, an age of greater assimilation in administrative practice than any which has preceded it, countries enjoying only an imperfect freedom have exceptionally fallen into the examples set them by freer and more enlightened communities, and have put forth such statements. But to Sweden, and to the intelligence and public spirit of that nation, belongs the credit of having, so early as the middle of last century, set such an example, and of having given to the world the materials which at that time existed nowhere else, for the construction of a national life table.
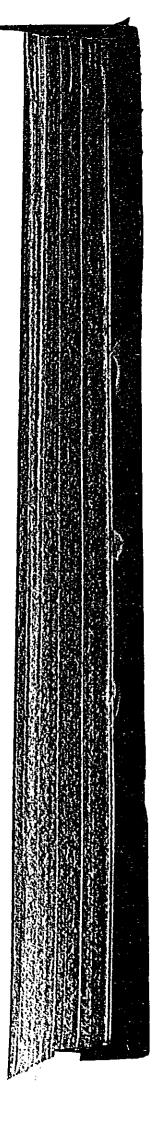
The Swedish census was taken triennially, from the year 1748 to 1775; and from 1775 to the present time it has been taken quinquennially. The returns during this period of one hundred and fourteen years have been made to Government commissioners, to whom also has been entrusted the duty of collecting and collating the various annual returns of other kinds affecting the statistics of population. Much of the information thus collected at the earlier of the dates mentioned would have been lost to other countries if it had not been for the fortunate circumstance that one of the commissioners, *Wargentin,* Secretary of the Royal Academy of Sciences at Stockholm, and who appears to have been a most able and sensible man, contributed to the transactions of that body some memoirs based on these official returns. The transactions of the academy being in

Swedish, these memoirs would have remained nearly unknown to scientific inquirers in other countries had it not been for the publication in French in the year 1772, of an abridgment of the first twenty-nine volumes. The publication of Wargentin's memoir was particularly useful and opportune. The celebrated Dr. Price and his friend the even more celebrated Benjamin Franklin, were at about this period much interested in the investigation of the very important and practical bearings upon social science of the progress of population. The first essay of Dr. Price upon this subject, and which was communicated in the form of a letter to Franklin, was read to the Royal Society in 1769. It contained, as regards Sweden, no more than a passing notice that in all Sweden the births and weddings were to one another as $4\frac{1}{4}$ to 1 as against $4\frac{2}{3}$ to 1 in France, and as against between 3 and 4 to 1 in towns generally. But, in appreciation of the practical value of correct life tables, no one ever held sounder views than Dr. Price. He concluded the essay referred to by urging the great need then existing for an improvement of the parish registers of London as well as of the country at large. "It would," he said, "give the precise law according to which human life wastes in "its different stages; and thus supply the necessary data for com- "puting accurately the values of all life annuities and reversions. "It would, likewise, show the different degrees of healthfulness of "different situations, mark the progress of population from year to "year, keep always in view the number of people in the kingdom, "and, in many other respects, furnish instruction of the greatest "importance to the State. M. de Moivre, at the end of his book on "the 'Doctrine of Chances,' has recommended a general regulation "of this kind; and observed, particularly, that at least it is to be "wished, that an account was taken, at proper intervals, of all the "living in the kingdom, with their ages and occupations; which "would, in some degree, answer most of the purposes I have "mentioned."

As Dr. Price died in 1791, he did not survive to see a census of the people, even merely as to numbers living, carried out in England. Under such circumstances, he conferred a benefit of great moment to the public in his construction of what is termed the Northampton table. The time which he devoted to it did not, however, interfere with his continuing to enlarge his area of observation by collecting the results of foreign experience, and before he read his second essay to the Royal Society (on the 22nd June, 1775), which is entitled, "Observations on the Difference between the Duration of Human "Life in Towns and in Country Parishes and Villages," he had studied with profit the memoir of Wargentin, that had been published in Paris in 1772 (as has already been observed), in the "Memoires "abrégés de l'Acad. Royale des Sciences de Stockholm." In this

essay* are quoted Wargentin's tables of the number of living at various ages, and of both sexes, separately, in 1763, and the corresponding rate of human mortality for Sweden and for Stockholm separately. It was obviously with much satisfaction that Dr. Price enlarged upon these observations as containing more distinct and authentic information on the subject than any he had hitherto met with, and he at once saw how much these Swedish statistics would enrich the collection of foreign mortality experiences in his own valuable work.

Some time before his death, Wargentin communicated to Dr. Price continuations of his observations from 1763 to 1776, more curious (as Dr. Price stated), than any that had yet been published, and leaving little to be wished for on the subject, except that similar observations were made in other kingdoms under the direction of men equally able and ingenious with Mr. Wargentin†.

From the results of all these observations for twenty-one years (1755-76), Dr. Price calculated his Swedish and Stockholm tables, both in the form of abstract mortality results and in that of financial deductions therefrom. These were reproduced in the work on " Life " Assurance and Reversions " of the distinguished astronomer and actuary, Francis Baily. The next English writer who availed himself of the information conveyed in the vital statistics of Sweden, was one of the most eminent of the early members of this Society, the Rev. T. R. Malthus, who drew some very excellent illustrations to his theories of population and of the supply of food, from these statistical results, in which he was aided by the circumstance of his having travelled in Sweden and other countries of northern Europe, and of having there personally examined and inquired into many facts connected with the condition of the people.

In 1815, that carefully accurate author, Joshua Milne, actuary to the Sun Life Assurance Society, published his " Treatise on the " Valuation of Annuities and Assurances." He had well reflected on the advantages of the information obtained through the Swedish tables in showing that the value of female life is not only greater than the value of male life merely amongst annuitants, as had previously been shown in the tontine observations of De Parieux, but that it is also greater when the experience is investigated amongst the population of towns and countries at large. Milne, therefore, preferred to set up a new model of the expectation of life,

* See " Philosophical Transactions," vol. lxv, part 2, and " Price's Observa- " tions on Reversionary Payments," edited by Morgan, sixth edit., 1803, vol. ii.

† I take occasion to repeat a question I appended eleven years ago to a Memoir on the History of Life Contingency Tables (see " Assurance Magazine," vol. i), asking, as a literary query of some interest, whether Dr. Price's correspondence and papers have been preserved? If they do still remain, a selection from them might, it is imagined, be well worth publishing.

as applicable to England, in his own original calculations, so well known as the Carlisle observations, for the extreme usefulness and importance of which, his name is held by those who have studied his work, in that high estimation which is the best reward for well-directed labours not yet so fully or so publicly acknowledged as they deserve.

In the tenth and twelfth chapter of Milne's work, and indeed in several other parts of it, he pointed out that the Swedes were at that period exposed to frequent famine and to its consequence, pestilence, such as Englishmen happily enjoyed an almost entire immunity from. From these, and other causes, the general mortality among the whole population, without distinction of sex, was, as Milne observed,* less both at Carlisle, and (as he supposed), in all England and Wales, before the introduction of vaccination, than among females only in Sweden, during the twenty years ended with 1795, although the mortality in Sweden during that period was considerably less than during the time of the observations Dr. Price's table was constructed from.

The collective experience, or mean results for the two periods, are as follows :—

Period.	Annual Deaths in Sweden and Finland.	
	Males.	Females.
21 years, 1755 to 1775 *	1 in 33·25	1 in 35·94
20 „ 1776 „ 1795 †	1 „ 35·60	1 „ 39·11

* *Vide* " Price's Observations on Reversionary Payments," vol. ii, p. 405, sixth edit.

† *Vide* " Milne's Treatise," art. 838.

Wargentin died in 1783. In 1791 the Royal Swedish Statistical Commission was enlarged, and Professor Nicander, who had succeeded Wargentin, was appointed its secretary. Publication of the abstracts had been suspended, and the tabulation of the returns from 1772 to 1795 became a work of considerable time and research; in 1799, however, Nicander commenced a series of eight memoirs, published in the transactions of the Academy of Sciences at Stockholm, between that date and the end of 1801, giving the complete results of the returns. These memoirs were made use of by Milne, so far as they appeared to him to apply immediately to the objects of his work, but he observed, that those who take an interest in such subjects will find

* See vol. i, Introduction, p. 23.

it well worth their while to consult the originals, which "give the " most complete and interesting account of the state of the popula-" tion of a whole kingdom " that had ever yet been published.*

Since the date of Milne's work, abstracts of Swedish population returns have, from time to time, appeared in English statistical collections, as for example in Marshall's work, and in the appendices to Dr. Farr's contributions to the Registrar-General's Reports.

A general and very condensed table of the results of the Swedish observations for the prolonged period of more than a century, over which they have extended, has, notwithstanding, hitherto been wanting.

The modern successors of Wargentin and Nicander have, in Sweden, worthily kept up the reputation of the Statistical, or *Tabell Kommission*, as it is called; and their periodical reports would, both in matter and in form, do credit to any country.

Dr. F. T. Berg, the chief officer of this commission, and who was the delegate for Sweden at the International Statistical Congress held in London last year, made to that Congress the following observations upon the population statistics :—

" Quant à la statistique de la population, j'ai eu l'honneur de " communiquer au Congrès de Paris la méthode d'après laquelle les " renseignments ont été recueillis en Suède, depuis 1749, sans aucune " modification essentielle. Dans l'intérêt à la fois de la science et de " ma patrie, les efforts de mon bureau ont, d'abord, été dirigés vers " la publication des résultats principaux de cette longue série " d'observations. Les trois premiers volumes, sous la lettre A, des " documents pour servir à la Statistique Officielle de la Suède, con-" tiennent le compte rendu de ces observations.

" L'exactitude de la statistique exigeant que les données primi-" tives soient autant que possible nominatives, la méthode de recueillir " les renseignements sur notre population vient d'être essentiellement " modifiée. Le mode d'enregistrement de l'Angleterre nous a servi " de modèle. Pour les registres de l'état civil et de la population, tenus " par le clergé, des modèles uniformes viennent d'être arrêtés. Des " extraits nominatifs de ces registres, en ce qui concerne les mariages, " les naissances et les décès, seront communiqués tous les ans au " bureau central, pour servir à la statistique. Le recensement se " fera au 31 Décembre, au moins tous les dix ans, par des extraits

* Milne also made use of the three further memoirs published in 1805 by Nicander, and containing the returns from 1796 to 1803. I am not able to ascertain if Milne acquired such a knowledge of the Swedish language as enabled him to consult works in that language with facility. From the catalogue of his library (sold in 1851, and rich in works on mathematics, natural history, and philosophy), it would appear that Swedish literature was amongst the subjects which interested him. It is probable that the notes upon his daily studies, which he was in the habit of recording in *short hand*, would, if deciphered, clear up this point.

" nominatifs des registres de population, tenus aussi par le " clergé." *

It is agreeable to observe, from Dr. Berg's remarks, that the very country which took the initiative in the publication of a correct national life-table, should, in its turn, find it of advantage to study the system of record, theoretical and practical, and that of administrative detail, adopted in England in the registration of births and deaths. It is equally pleasing to find, that since the time when such men as Price and Milne enlarged the public knowledge of the value of Swedish statistics, the supply of original and novel information of the kind from Sweden has not diminished but has increased. The library of the Statistical Society continues to receive from its Swedish correspondents contributions which prove the perennial nature of the supply. There have, notwithstanding, been great difficulties in the way of its being utilized. The very copiousness of the information, and its minute detail, deters investigation. Many are content with the mere knowledge that in a certain place, if certain facts be wanted, there they can be referred to. Such, however, is hardly the fashion in which the Society desires to welcome the contributions made by our foreign members to the common stock of knowledge.
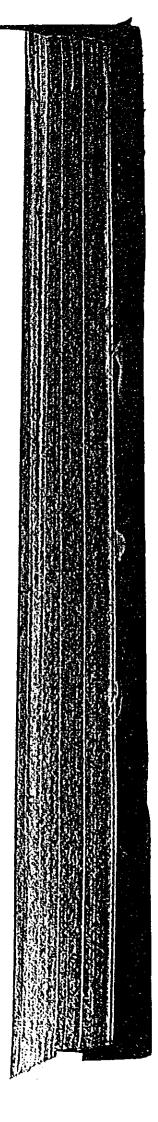
A no less real and active obstacle to a diffusion of information on such occasions is when the explanatory text of the statistics—as with the Swedish—is in any other language than one of the three leading vernaculars of Europe. The Statistical Commission at Stockholm has so far recognized this, that in most of their recent publications and reports some brief general description or heading of the contents of many of the tables has been printed in French, as well as in Swedish. But the minor details of the headings are still (perhaps from fear of overcrowding), left in Swedish only; so that in England we must use dictionaries before we can clearly understand the tables.

On the occasion of the Statistical Congress of 1860, in my capacity of one of the secretaries of the census section, I had special opportunities of consulting with Dr. Berg and his assistant, Count Carl Mörner, on the details and particular tables which would best afford us in England, and particularly the Statistical Society, a condensed view of the collective experience of Sweden on vital statistics, from their first collection in the middle of the last century. Count Platen, the Swedish Minister, in London, was also willing to give me his assistance; and had it not been for his recall, the following pages might have appeared in an improved form. As it is, however, the absence of a lengthy review or comment upon the figures leaves room for a larger number of tables being inserted than the limited space in the Society's *Journal* would otherwise have admitted. It will be

* "Report of the Proceedings of the Fourth Session of the International " Statistical Congress," p. 46.

found, also, that the tables, in most instances, tell their own tale, and give a very complete view, arranged in a convenient form, of an extensive experience, the surface and duration of which are often large enough to indicate within what limits the law of averages may be expected to oscillate in circumstances like those investigated.

The very important tables on the past, compared with the present, rate of mortality in Sweden, are useful in the lesson which they teach us that the rate of mortality, although it has progressively diminished at some ages, has, nevertheless, increased at certain other ages, and will not justify the literal meaning of the term " preventable mor-" tality " to the extent to which the most sanguine of sanitary reformers would expect.

The general statistics of Sweden, referred to by Price, Milne, and other former English writers, always showed the experience of Finland jointly with Sweden, but the present tables refer to Sweden exclusively, as the figures for Finland, since its cession to Russia, have been sifted out of the account. The present is, therefore, the first publication in England of the past as compared with recent purely Swedish experience in vital statistics.

The tables selected for publication will be found of use, not only in illustration of many questions connected with the distribution and progress of population, but also in connection with the comparative results in other countries, the figures for which, appended to the tables, will to some extent answer the purpose of a running commentary. It should be understood that the credit of using the comparative figures in this way in the editing of the Swedish statistics is entirely due to Dr. Berg, whose great ability and unwearied perseverance are known to many members of this Society. Considering the contracted budget for administration of all kinds allowed by the Diet of Sweden to the Central Statistical Commission of that country, it is surprising that the services of such a succession of competent men has hitherto been secured to that commission. The fact is patent, that these men, beginning with Wargentin and Nicander, two generations ago, and continued to Dr. Berg and his colleagues at the present time, have well performed a difficult and patriotic duty, and all honour to them for it.

The process by which the vital statistics of Sweden have been collected in the last and present century was described as follows by Dr. Berg, to the second meeting of the International Statistical Congress, held at Paris in 1855 :*

" Although they still preserve, in several parishes of Sweden, the " register of marriages, baptisms, and burials, extending back to the

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* See " Compte Rendu de la Deuxieme Session et Publié par les Ordres de " S. E. M. Rouher, par les soins de M. A. Legoyt," Paris, Mai, 1856, pp. 205—210.

" beginning of the sixteenth century, the keeping of these registers " by the clergy only became obligatory after the passing of the eccle-" siastical law of 1686, which is still in force.

" According to the terms of this law, there must be kept, in each " parish, and under the care of the bishops and provosts (deans),

1. " A marriage register, showing the date of the marriage, the " names of the married and of their parents, their abode, and the " nature of the several certificates which they have had to furnish.

2. " A register of legitimate and illegitimate births, showing the " day and place of birth, the names of the parents, the day of baptism, " and the names of the godfathers and godmothers.

3. " A register of deaths, showing the date of the death, the name " of the deceased, the profession, age, and the place of interment.

4. " A register of all persons leaving the parish or coming there " to establish themselves, with a statement of their birth-places and " of the places for which they leave the parish.

5. " A register of parishioners, or complete list of the inhabitants, " according to houses and households, intended to serve at the same " time the requirements of religion and as an element in controlling " the registers of landed property and of householders, kept by the " tax-collectors.

6. " The law likewise prescribes that all the phenomena and " extraordinary accidents occurring in the year should be noted in " the parish registers."

Viewing the requirements of this Swedish law from an English point of view, it will at once be seen that the English Act, or injunction, made by Henry VIII's Vicar-General, Thomas Cromwell, and under which parochial registration has been kept up, with certain omissions in the reign of Queen Mary, since the year 1538, only had half of these regulations, viz.: as affecting weddings, christenings, and funerals, and therefore could only go half-way towards the perfection attained under the Swedish Act. The English system, by its rejection of any system of registering in parishes the individuals composing the resident parishioners, and omitting all notice of emigration or immigration, is thus made of less value for statistical research than the Swedish system.

It appears, from the statements of Dr. Berg, that in the reign of Charles XII, of Sweden (1697-1719), grave preoccupations, resulting from a long war and from the ravages of pestilence, prevented use being made of the rich store of materials contained in the parochial registers. It is however questionable, from what Dr. Berg afterwards states, whether if peace had prevailed and the blessings of uninterrupted healthy seasons been enjoyed, the study of vital statistics would have quickly advanced. Famines arrived, and with them the fear of a recurrence of pestilence; and in 1737 a sanitary

commission was appointed. This commission was instructed to report, not only upon the measures which it might deem advisable to recommend for a prevention of the apprehended scourge, but also to inquire into the means of giving an active stimulus to the progress of population.

The sanitary commission wished to obtain information upon the influence which war and pestilence had exercised upon the progress of births, marriages, and deaths. It therefore asked for extracts from the parochial registers, and communicated them to the Government.

The parochial statistics thus afforded the basis of national medical statistics, which, by exposing the inadequacy of the then existing sanitary institutions, led to the appointment of provincial physicians, and to the re-organization and increase of the number of asylums and hospitals, of charitable institutions, and of preventive measures against epidemics.

In 1746, a memoir from the Academy of Sciences of Stockholm was presented to the Diet, which made known, for the first time, the number of people in the Kingdom, calculated from the extracts from the parochial registers. Subsequently to this communication the Diet caused to be drawn up some very detailed schedules of questions or forms of table upon the movement and condition of the population, and enacted that they should be distributed amongst the 2,500 parishes of the kingdom, in sufficient quantity to obtain returns for twenty-five years. The preparation of these returns was entrusted to the pastors, to whom fully detailed instructions were sent with the blank forms. Delays of various kinds prevented, however, the execution of this enactment until the year 1749. But it is stated that since then the clergy have regularly furnished, with the utmost correctness, returns of the progress of population, introducing, from time to time, various improvements in the forms.

Dr. Berg very justly concluded that it would interest the Session of the Congress at Paris to learn what are the documentary records which Sweden now has in its possession bearing upon the progress of population in the parishes, in the provinces, and for the entire kingdom.

The following is the list:—

From the year 1749 an *annual* return of—

1. The *births*, according to sex, legitimate and illegitimate, for each month of the year.

2. Of the still-born, down to 1801, according to sex; since that time without distinguishing the sex.

3. Of the births of twins, triplets, and of four at one birth.

4. Of the *marriages* in each month.

5. Of the *deaths*, according to sex and age, under 1 year of age,

from 1 to 3 years, from 3 to 5 years, from 5 to 10 years, from 10 to 15 years, and so on, in periods of 5 years, up to 90 years of age; and from the latter age, year by year, up to 100 and upwards.

Deaths according to conjugal condition (to 1801, monthly returns).

Deaths in each month.

Causes of death from epidemics: small-pox, scarlatina, and measles, typhus fever, dysentery, and from the consequences of child-birth. From other sporadic diseases down to 1830. From various accidents: drowning, freezing, suffocation by deleterious gases. Suicides and murders. Executions by the hands of justice (showing also the crimes of the executed).

(It may be here noted that, subsequently to the time when Dr. Berg drew up this list, he recommended the registration of deaths in Sweden being drawn up in accordance with the nosological system of Dr. Farr. His recommendations have been adopted; and Dr. Berg showed us, at the Statistical Congress in London, 1860, some Swedish forms literally translated from those in use by the English Registrar-General's Office.)

6. Marriages dissolved by death in each month.

(For recent years, we believe we are correct in stating, that returns of marriages dissolved otherwise than by death, *i. e.*, by divorce, have been annually published).

The following further particulars have been added to these items of information:—

7. Since 1775, the age of women delivered of children, from 15 to 20 years of age, from 21 to 25, 26 to 30, &c., and above 50 years of age.

The number of persons killed by lightning.

8. Since 1802; (*a*) The number of *marriages* between bachelors and spinsters, widowers and spinsters, widowers and widows.

(*b*.) That of *deaths*, in each month, under 10 years of age, from 10 to 25 years, from 25 to 50 years, above 50 years.

(*c*.) The number of *deaths* of illegitimate children up to the age of 1 year.

Of bachelors above 15 years of age.

Of widows. Of widowers.

Deaths from epidemics in each month.

Deaths from alcoholic intoxication.

9. Since 1804; the number of vaccinated persons.

10. Since 1821; (*a*.) The number of men marrying for the first time, for the second time, for the third time.

(*b*.) The ages of the married.

(*c*.) The number of legitimate children dying under the age of 1 year.

(d.) The number of immigrants and emigrants.

11. Since 1831; the number of (a.) marriages, births, and deaths, amongst the nobility, the clergy, the burgher class, the peasantry, and other persons.

    (b.) The number of legitimate and illegitimate children still-born, in each month.

    (c.) The means of subsistence of women delivered.

    (d.) The number of legitimate and bastard children, deceased in the second and third year of age.

    (e.) The number and age of persons deceased in the hospitals, asylums, and prisons, in each month.

    (f.) The conjugal condition of suicides and executed persons.

    (g.) The progress of population amongst persons of religious ·denominations, other than the religion of the majority of the people.

It was further mentioned by Dr. Berg, that so far as relates to the state of the population as exhibited by the *census* enumerations, there is in existence for each parish, each province, and for the whole of Sweden—

An annual account for the years 1749 to 1751.

A triennial account for the years 1754 to 1772.

And, finally, a quinquennial account for 1775 and subsequent years, as at 31st December of each census year.

These returns comprise the following details:—

1. Sex of the inhabitants.

2. Their ages; and for each sex, under 1 year, from 1 to 3 years, from 3 to 5 years, from 5 to 10 years, the same heads of schedule as for deaths at corresponding ages.

3. The number of married widowers and widows, and of single of both sexes under 15 years of age, and above 15 years of age.

4. The number of inhabitants according to occupations.

5. The number of blind people.

6. The number of deaf and dumb.

7. The number of lunatics.

8. The number of scholars and students.

9. The number of households.

10. The number, &c., of persons not belonging to the established religion.

11. The population of asylums, hospitals, and prisons.

12. Since 1775, the number of immigrants and emigrants has been recapitulated every five years; and,

13. Finally, since 1805, the Lapps have been enumerated according to sex, occupation, and households.

Households are classed according to the number of persons of which they are composed, and their means of subsistence.

The labours resulting from the collection and analysis of the tables furnished by the parishes, as well as the preparation of the elements of the annual reports to the King, having rapidly taken a considerable extension, the superior administration, then called the Royal Council of the Chancellorship (*cantzlie collegium*), which was at first charged with the duty, soon found it impossible to face it; the King was then obliged to confide this task to a special commission, called the *Tabell Commission*, or Chief Commission for the Statistics of Population; this commission, which was created in 1756, has not since ceased its functions. Like the Central Statistical Commission of Belgium, it is composed of the representatives of the chief superior administrations, and of members of the Academy of Sciences at Stockholm, under the presidency of a high public functionary. The secretary of the commission, aided by two employés, fulfils duties nearly approaching to those of the Chief of a Statistical Bureau.

The number of inhabitants of the country (Dr. Berg observes) was long regarded, in Sweden, as one of the most important State secrets, and it was severely forbidden to reveal anything respecting it to the public. It was only in 1762 that permission was given to publish, in the " Comptes Rendus " of the Academy of Sciences at Stockholm, some extracts from the reports of the commission upon the progress of the population.

It only remains to be noted, that the following is the mode of operation in taking the census enumerations:—

In the *towns*, each head of a household states upon a schedule the name, age, and profession of the members of his family. These schedules are collected, during the month of November, by the agents of police.

In the *country* districts, the pastor, when he makes his annual round in November (for purposes connected with his religious duties) verifies, on the spot, if his register of households and inhabitants be in conformity with the real state of the population; he then makes the necessary extracts or corrections.

The tables which follow have been chiefly selected from the following official publications:—

(1.) Statistiska central-byråns Underdåniga Berättelse för åren 1851 med 1855. (Fredje och sista afdelningen.) *Stockholm*, 1860, 4to.

(2.) Tabell Kommissionens underdåniga berättelse för åren 1851 med 1855. (Första afdelningen.) *Stockholm*, 1857, 4to.
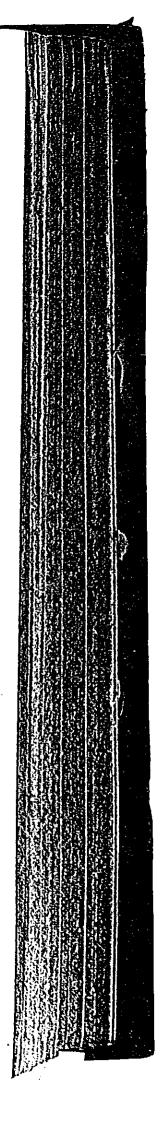
The most convenient way of grouping the results is into the following five divisions:—

I.—*General Results.*

TABLE A.—Population of Sweden, and various statistical results

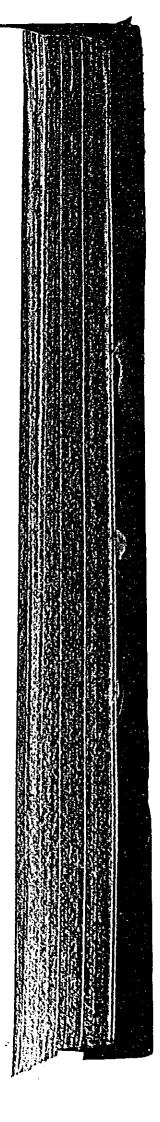relating thereto, in each of the one hundred and seven years, 1749-1855.

In this table are presented the population, as ascertained at the triennial and quinquennial census enumerations, with adjusted figures for intervening years. *Annual* returns of marriages; of marriages dissolved by death; of children born alive; of bastard children; of still-born children; of women delivered of twins, of three children at a birth, and of four children at a birth; of total deaths, deaths of males and females separately; deaths in childbed; deaths from small-pox; deaths from typhus and typhoid fevers; of persons drowned, males and females separately; of persons who have committed suicide, males and females separately. In parallel columns are given, for each year, the quality of the harvest; the yearly percentage increase of population; the proportion of inhabitants to one marriage; the proportion of marriages dissolved by death to each new marriage contracted in the year; the proportion of inhabitants to one living child born; the proportion of living children born to one marriage contracted; the births of males to 1,000 births of females; the proportion of inhabitants to one death; the proportion of children born alive to one death; the proportionate deaths of females to one death of males; the deaths from small-pox to 100 deaths from all causes; the deaths from typhus and typhoid fevers in proportion to 100 deaths from all causes.

The several thousand statistical facts, and results purely derived from the analysis of these facts contained in the table just described, present so interesting a view of the laws and of the limits which define the fluctuation of such laws as have regulated the progress, distribution, and condition of the people of Sweden, that the table, as a whole, might well justify a challenge from our Scandinavian friends for any other country to produce an analogous table. The many uses to which the results in the present table may be directed by the statistician, the actuary, and the inquirer into social science, are too obvious to require more than the most cursory notice on our part. We have only here to observe, that the following are the meanings of the numerals in the column as to quality of harvests in this Table A.—O = missväxt (failure); IX = ymnig (abundant); VIII = god (good); VII = öfver medelmåttig (above average); VI = fullt medelmåttig (average); V = under medelmåttig (under average); IV, III, II = svag (poor), klen (slender), knapp skörd i aftagande till (scanty); I = nära allman missväxt (almost total failure).

TABLE B.—Showing the proportion that died at *each year* of age (or the co-efficients of mortality) from birth to 99 and 102 years of age, for males and females, separately, during ten separate epochs between the years 1755 and 1855; viz., from 1755-57, 1758-60,

1761-3, 1765-75, 1776-95, 1801-5, for Sweden and Finland together. And from 1816-40, 1841-5, 1846-50, and 1851-55, for Sweden alone.

This table is given in the best analytical form in which it could be presented to the statistician. By simple subtraction of the results from unity we may have, in accordance with the calculus of probabilities, the fractions showing the proportions that survive each age of life, and, therefore, the all-important auxiliary table from which the values of life contingencies at various ages in the different periods could be derived. But, to the statistician generally, the view presented by the table is rather that of a ready *comparison* of the rate of mortality at every age at various periods during the last one hundred years (1755-1855). Comparing the extremes of this long interval of time, it would seem that the mortality of 1755-7, compared with that of 1851-5, shows a diminution from birth to 36 years of age, but an increase at all ages from 37 years of age to the extremity of life, viz., at 98 years, for males. Comparing the results in the same two periods for female life, there is an apparent diminution, in the one hundred years, of the rate of mortality at each age, from birth to 50 years of age, and an increase from 51 years of age to 91, after which the balance again turns into a comparative diminution of mortality to the extremity of life, or 102 years, for females. Some slight, but probably not very material, disturbance of the results may be ascribed to the circumstance of Finland being included in the first, but excluded in the second, period under notice. From 1816 to 1855 the figures refer to Sweden alone throughout the four periods compared between that interval of time. Here, again, irregularities occur. If we contrast the rate of mortality of 1816 to 1840 with that of 1851 to 1855, it will appear that the male mortality of the latter, or more recent period, has diminished from birth and under 2 years of age; has increased from age of 2 to 16, and has diminished again from age of 16 to age of 72, with various alternations of increase and decrease at ages above 72. The comparative female mortality has likewise fluctuated in a manner which might be described by a curve of nearly the same character, —diminishing from birth and under 2 years of age, increasing at most ages under 15, diminishing from 15 to 66, and increasing at most ages above 66.

A very frequent, but by no means a perfect, way of exposition of the value of life at different periods is, to give a statement of the average expectation of life at birth. We therefore extract from these Swedish Statistics the elements of the following comparison:—

Periods.	Average Expectation of Life at Birth.	
	Males.	Females.
	Years.	Years.
SWEDEN.		
1755–75	33·88	36·60
'76–95	34·74	37·54
1816–40	39·50	43·56
'41–55	41·28	45·60
ENGLAND.		
1838–44	40·36	42·04

The figures here given would indicate an improvement in the one hundred years of about 7·4 years in the expectation of life of all male children at birth, and of 9 years in that of female children. The increase in the value of life has, however, in this method of comparison, been much more largely affected by the diminution of the excessive *infantile* mortality at the earlier periods compared than by any marked continuous improvement in the value of human life throughout all its periods of adult age, maturity, and decline.

Furthermore, it must never be left out of view in such a comparison, that the great scourge of small-pox (the statistics of which in Sweden will be given in the following tables) having been removed in the second half of the period compared by the introduction of vaccination; to that cause alone must a very large part of the increase in the value of life be ascribed. There is, also, something abnormal in the circumstance, that during the first half of the hundred years observed upon, there have been no less than sixteen years out of the fifty in which the harvest is described as having been a total, or almost total, failure; whilst, in the second fifty years, there have been no years in which this extreme result has prevailed, although years of poor or scanty harvest have, of course, occurred.

TABLE C.—It now remains to be shown what is the estimated value of human life, according to the most recent investigation in Sweden. For this purpose we may, with advantage, avail ourselves of the Swedish life table for the fifteen years 1841-55. In the Table C, we have accordingly arranged the two chief columns of primary elements of that national table, viz., the proportions of living and dying, or, in other words, the decrements of life at each age; and the two leading deductions therefrom—the expectation of life, and the probability of dying in one year at each age.

In order to admit of the most compendious possible comparison, the following abbreviated extracts will be found convenient, as we have annexed the expectations of life indicated by the first English life table calculated by Dr. Farr, on the basis of the population and deaths of the year 1841:—

EXPECTATION *of* LIFE, SWEDISH LIFE TABLE (1841-55), *compared with English Life Table* (1841).

Ages.	Male Life.		Female Life.		Both Sexes.	
	Swedish.	English.	Swedish.	English.	Swedish.	English (Mean of Male and Female Life).
	Years.	Years.	Years.	Years.	Years.	Years.
0 (or at birth)	41·28	40·17	45·60	42·16	43·43	41·16
1 Year	48·29	46·72	51·95	47·55	50·15	47·13
2 Years	49·27	48·82	52·92	49·57	51·15	49·19
5 ,, ...	49·40	49·64	52·96	50·37	51·22	50·00
10 ,, ...	46·48	47·08	49·99	47·81	48·29	47·44
20 ,, ...	38·55	39·88	42·12	40·80	40·38	40·34
30 ,, ...	31·22	33·13	34·45	34·24	32·90	33·68
40 ,, ...	24·33	26·57	27·21	27·72	25·84	27·14
50 ,, ...	18·02	20·03	20·11	21·07	19·16	20·55
60 ,, ...	12·31	13·59	13·48	14·39	12·97	13·99
70 ,, ...	7·40	8·52	8·04	9·01	7·79	8·76
75 ,, ...	5·47	6·55	5·99	6·91	5·79	6·73
80 ,, ...	3·88	4·94	4·32	5·19	4·17	5·06
90 ,, ...	2·42	2·73	2·76	2·83	2·64	2·78

The result of the comparison between the most modern English and Swedish life table, calculated upon the registration of deaths and census enumeration of the two nations, is as follows :—
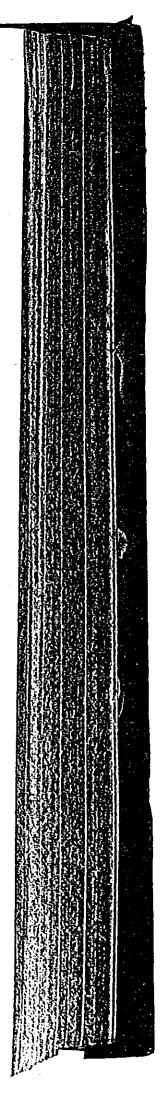
(*a.*) For *male* life. In favour of *Swedish* life, from birth to 3 years of age, to the extent of 1·11 years at birth, 1·57 at 1 year, then decreasing to 0·16 at 3 years. In favour of *English* life from 4 years of age to the extremity of life, the differences gradually increasing from ·07 at age of 4 to 2·24 at ages of 40 to 42, and decreasing (with some irregularity at the higher ages) to 0·31 at age of 90. The age of 90 closes the Swedish male table, that of 104 the English male table.

(*b.*) For *female* life. In favour of *Swedish* life from birth to 32 years of age, commencing with a difference of 3·44 years at birth, 4·40 at 2 years, then gradually decreasing to 0·12 at age of 31, turning the scale in favour of *English* life at 32 to the extent of 0·03, and the difference in its favour gradually increasing to 0·99 at age of 66, and diminishing to 0·07 at age of 90. At 91 to 98 the difference again turns slightly in favour of Swedish life, and slightly against it from 99 to the extremity of female life, which is at age of 101 in the Swedish, and of 104 in the English table.

II.—*Results illustrating the Progress of Population.*

TABLE D.—Gives the absolute increase of the population in each five years from 1751 to 1855; also the increase per cent. for each quinquennium, and for the average of each separate annual ratio of

increase during the periods. I have appended to these results comparative figures for Great Britain and Ireland, and for England and Wales, and Scotland, separately, from 1801 to 1861, from Mr. Hammack's excellent paper on the Census of the United Kingdom in the "Companion to the Almanac" for 1862.

Reviewing the whole century of Swedish experience, it would appear that the *minimum* increase in any quinquennium, was in 1786-90, viz., an increase of 0·39 per cent., and that the *maximum* increase was, in 1821-25, viz., 1·392 per cent. Comparing the figures of the present century with those for Great Britain and Ireland, it may be observed that the ratio of increase in Sweden was, on the average of years, about less by one-third than in the United Kingdom.*

TABLE E.—Proportion of inhabitants of the country to inhabitants of towns, in Sweden, from 1805-55. This table is specially deserving of notice in connection with Swedish statistics. It will be observed, from the interesting comparative figures which Dr. Berg has quoted for nine other countries, that the condition of Sweden, as regards distribution of population between town and country, is singularly exceptional. Not only is the proportion of the rural population to the urban population very small,—not more than 116 inhabitants of towns to 1,000 inhabitants of the country; but this proportion had only slightly varied, *i.e.*, from 106 to 116 per mille in fifty years. The town population of England and Wales, proportionately to country population, was in 1851, 1,006 to 1,000,—being a ratio nine times as great as that of Sweden.

The general vital statistics of Sweden, which are the subject of the present paper, must, therefore, be understood as markedly those of a population of a rural character. Of course these statistics include a certain infusion of town lives exposed, in the small towns

* A brief note as to the comparative *density of population* in Sweden and in the United Kingdom may here be useful.

	Year.	Superficies in Geographical Square Miles.	Population.	Density of Population per Geographical Square Mile.
Sweden	1858	8,031	3,734,240	465
Great Britain and Ireland....	1861	5,774	29,307,199	5,027

The returns for Sweden, in 1858, are from the "Almanac de Gotha" of 1861, which gives the figures upon the authority of Dr. C. F. Frisch, of Stockholm. Whilst, therefore, it may be stated that the superficies of Sweden is to that of the United Kingdom as 139 to 100, its comparative density of population is but little more than 9 to 100.

of Sweden, to very evil influences of bad drainage and other defective sanitary arrangements, but the number of such lives is far too small to materially affect the general conclusions as applicable to a country population. A few more observations will be offered on this point when we have to consider the ratio of deaths to the number of living in the Swedish urban and rural districts.

The best illustration of the comparative smallness of the town populations of Sweden is shown by the following statement of the number of inhabitants in all the communities called *städer* in Swedish, but which, judging by an English scale, we should, in several instances, class with mere villages. It may be noticed that the whole urban population of Sweden, in 1855, was not greater than the population of Liverpool alone in the same year:—

Year.	Inhabitants.	Year.	Inhabitants.
1805	231,953	1835	290,476
'15	241,172	'45	324,168
'25	272,404	'55	378,777

I have taken the trouble of analyzing the census returns of town population in 1855 into the following groups, so as to arrive at a correct general impression of the remarkable smallness of the numbers included in that designation :—

Group.	Towns with Population of	Number of Towns.	Example of Population of Towns in each Group.
I.	15,000 to 98,000	4	{ Stockholm, 97,952; Gothenburg, 29,547; { Norrköping, 17,116; Malmö, 15,808.
II.	10,000 „ 15,000	1	Karlskrona, 14,513.
III.	5,000 „ 10,000	11	{ Gefle, 9,587; Upsala, 8,006; { Calmar, 7,554; Lund, 7,254.
IV.	3,000 „ 5,000	14	Wisby, 4,852.
V.	2,000 „ 3,000	11	Mariestad, 2,195.
VI.	1,000 „ 2,000	28	Wimmerby, 1,559.
VII.	300 „ 1,000	19	Lindesberg, 972; Falsterbo, 303,
		88	Average population, 4,304.

It is important, however, to notice that it is only from the census of 1860, inclusive, that the returns of the population of *Stockholm* will deserve the character of strict accuracy. On the 1st January, 1861, the population of Stockholm is stated to have been 116,972, (54,089 males and 62,833 females) : of this number 2,156 were travellers or strangers. It is necessary to keep in view this defect in the accuracy of the enumerations in the *capital*, inasmuch as it more or less affects all the returns of its vital statistics to 1855 inclusive. It should, at the same time, be distinctly under-

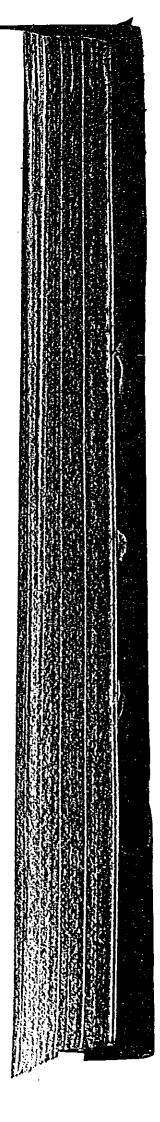stood that the causes of error are strictly local. The tax schedules, or tax registers, used to be the foundation on which the Stockholm population was ascertained, instead of the parochial returns, or population registers, kept by the clergy, and which were, and are still, the foundation of the census in all other parts of the kingdom. In 1860, the census of Stockholm was, for the first time, taken in the same way as in England—by census papers distributed to each household or family,—and this method of procedure will be continued for that city. Thus, the true population will be ascertained, and not the under statements which have hitherto been current. It may be said that the error in the Stockholm census had, in recent years at least, amounted to 10 per cent.

TABLE F.—Proportion of the sexes in the population, from 1751 to 1855. The maximum of comparative female population appears at the earliest date, 1751, viz., 1,124 females to 1,000 males; the minimum at the most recent date, 1855, viz., 1,063. The tendency towards a progressive diminution of the preponderance of female members of the population has been uninterrupted since the year 1810. The proportions in several other countries are appended to this table.

III.—*Results illustrating the Conjugal Condition of the People.*

TABLE G.—Proportion of marriages to population in Sweden, from 1751 to 1855, with comparative returns for other countries.

TABLE H.—Marriages arranged according to civil position, in Sweden and in other countries. The word *civilstand (état civil)* is here used in its foreign sense of conjugal condition. For conformity's sake, it might be usefully introduced (in the form of the compound word civil condition) into English statistical nomenclature. This table gives the numbers out of every 100 marriages, which took place at various periods, from 1810 to 1855, between single men and women, widowers and single women, single men and widows, widowers and widows. It gives also the total single men and widowers married out of every 100 males married, and the total single women and widows married out of every 100 females married. There are likewise figures exhibiting the analogous experience of other countries.

The range of facts in this, and indeed in all the other very admirably arranged Swedish tables, to be presently noticed, respecting marriages, is curious and interesting, and full of instructive suggestion on the limits between which certain laws in vital statistics may be expected to fluctuate, even in matters commonly supposed to be materially influenced by the operation of the human will, and upon which our members, M. Quetelet and Mr. Samuel Brown, have so ably written.

TABLE I.—Proportion of first, second, third, fourth, fifth, and sixth marriages of the husband, from 1821-55.

TABLE K.—Ages of the couples in every 100 marriages celebrated. The men and women arranged in separate classes, under 25, 26 to 35, 36 to 50, and above 50 years of age.

If space permitted, we might also introduce tables showing, out of 100 men aged under 25, how many married women aged under 25, women from 26 to 35, women from 36 to 50, women above 50, and the same class of results for the three groups of married men aged above 25, &c. Also tables showing the distribution, according to ages of husband and wife, in every 100 marriages. All these results are for the twenty-five years 1831-55, and the divergence from the law of average is very small indeed when we consider that this class of facts is one to some degree under what is termed the control of the human will.
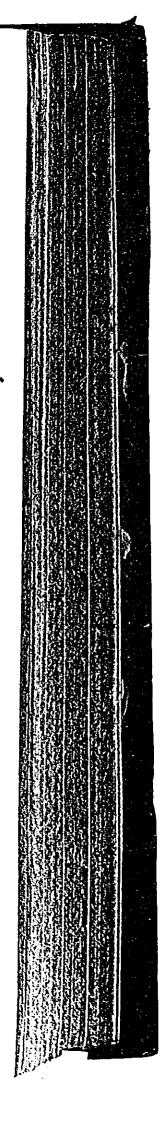
IV.—*Results illustrating the Fecundity of Marriages, the Birth-rate, Legitimacy, and Illegitimacy.*

TABLE L.—This table is for the one hundred and five years, 1751-55, giving, in quinquennial periods, the proportion of births (children born alive and still-born, separately and together), to the whole population, to the whole female population, to the female population between the ages of 15 and 55, and to the number of marriages contracted.

The facts are further arranged into groups of experience for half and quarter centuries, and are interesting, and well worth quoting in that form of arrangement, as an excellent illustration of the laws which regulate vital statistics when the time and area of observation are sufficiently extensive to eliminate any excess of fluctuations, within or beyond the average, which a more restricted surface or period would present. We will not, for one moment, assert that the observation we have just made is a new one, but it is expedient to urge it, when we recollect that, at the very last meeting of the Statistical Section of the British Association, there was some disinclination expressed to recognize statistics as including in themselves science and natural laws. But vital statistics, at least, in their modern form of comparative perfection, may be said to exhibit, not only recognizable statistical laws, but a science well fitted to illustrate, in the most popular light, the mathematical laws of probability.

A *supplementary* table to Table L. gives, for comparison with that table, the proportion of births to the population. It will be noticed, that comparing England with Sweden, there is a close similarity.

TABLE M.—Proportions of male to female births in Sweden (1749-1855). The number of males born alive to 1,000 females born has augmented from 1,043, in the period 1751-60, to 1,050 in

the period 1851-55. The ratio in England has closely approximated.

TABLE N.—Illegitimate births in Sweden (1776-1855). This is a very comprehensive table, and includes the following particulars for the various quinquennial periods:—1. The number of bastard children born alive. 2. The bastard births to 100 births, including children born alive. 3. The bastard births to 100 legitimate births, including still-born. 4. The bastard children born alive to 100 births of living children. 5. The bastard births to 100 births of living legitimate children. 6 and 7. The proportion of bastard births (born alive and still-born, and born alive, separately), to the whole female population. 7 and 8. The same particulars in proportion to the unmarried women over 15 years of age. 9 and lastly. Some of the same particulars for twelve other countries of Europe.

Without entering into any detailed particulars, it may be observed that the figures tell a very grievous tale. Out of every 100 children born alive at the first two periods, in the eighty years' observation (viz., in 1776-80, and 1780-85), there were not more than about 3·11 illegitimate, but the proportion has been gradually growing and growing until, in the last quinquennial period (1851-55), it had attained exactly three times that ratio, or 9·33 per cent.

TABLE O.—Sexual ratio of births, legitimate and illegitimate. Giving the figures from 1776 to 1855 of the number of boys born alive to 1,000 girls born alive, amongst legitimate and illegitimate births, separately.

It has long been known, that although the births of males predominate over those of females in illegitimate as well as in legitimate births, that the ratio of male legitimate births is greater than the ratio of male illegitimate births. The average of eighty years in Sweden gives the figures of 1,047 boys to 1,000 girls for legitimate births, and 1,027 boys to 1,000 girls for illegitimate births, being a difference of 20 boys in the legitimate births. But, as bastardy has increased in Sweden, the difference in the ratio appears to have lessened, and, in the five years 1851-55, the comparative ratios to 1,000 girls have been 1,051 and 1,041 respectively for legitimate and illegitimate births.

TABLE P.—Proportion of births to deliveries (Sweden, 1775-55), with comparisons for six other countries. This table states the total number of births of living children and still-born children to every 100 deliveries. Also the analysis of every 100 deliveries, with the proportions for one child born alive, one child still-born, twins, triplets, and four at a birth. The phenomenon of three children at a birth has occurred much more frequently than might be imagined without reference to such statistics. It would appear that, in Sweden, no less than 248 out of every million of deliveries on

the average of the eighty years, 1776-1855, produced three children at a birth. The number of such triple births has only slightly diminished in the quinquennial periods, and was not less than at the rate of 200 in the million in the five years 1851-55. The rarer phenomenon of four children at a birth has also taken place at the rate of five times to each million deliveries during the eighty years. In two only, out of the quinquennial periods into which these years are divided, was there an absence of its occurrence, viz., in 1791-95, and in 1851-55, but in 1846-50 it happened once, being in proportion to twice out of each million deliveries.

TABLE Q.—Showing the proportionate ages of women delivered of children in Sweden, from 1776 to 1855, arranged in the percentages corresponding with ages under 20, the six periods of five years each to 50 years of age, and ages above 50.

TABLE R.—Proportion of the still-born to the number of births in Sweden, from 1776 to 1855, and in other European countries. This table is stated in the double form of one still-born to so many born alive, and of the ratio of still-born to 100 births. The average percentage for the eighty years has been 2·77, but it has been gradually on the increase, and in the last quinquennium was 3·30. The ratio is, however, higher in the other countries, for which figures are quoted. In England the proportion is not known.
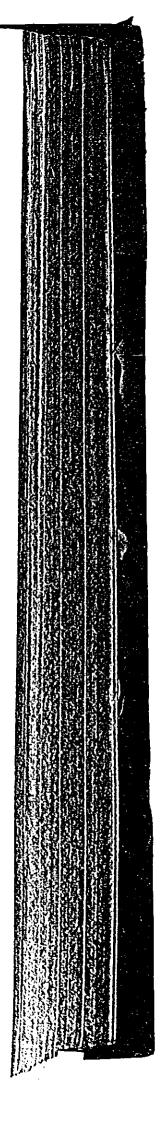
TABLE S.—Proportion of deaths in child-bed to women delivered. Sweden, 1776-1855. This table shows that the deaths from child-bed did not exceed 0·44 per cent. in the five years 1851-55, or only about one-half of the mortality from this cause at the commencement of the period observed upon, viz., in 1776-80.

Returns of this kind, when well-authenticated, from countries in more southern latitudes, will be interesting for comparison.

V.—*Results illustrating the Death-rate, Deaths from Suicides and Accidental Causes, from Small Pox, &c.*

TABLE T.—Deaths, and their proportion to inhabitants, to births, and to sexes. This table for the twenty-one quinquennial periods, from 1751 to 1855, gives the absolute number of deaths, the number of inhabitants to one death, the number of deaths to 100 inhabitants, the ratio of children born alive to 100 deaths, the deaths of females to every 100 deaths of males.

The supplement to this table gives information upon similar points, based on the statistics of other countries.

The average of the one hundred and five years, 1751-1855, for Sweden, exhibits a mortality of about 1 in 40, or 2½ per cent. The improvement has been progressive, but by no means uniform. For example, the years of the highest mortality, were from 1806 to 1810, 3·07 per cent., or 1 in 32·5; the years of lowest mortality, from 1841

to 1845, 2·03 per cent., or 1 in 49·3. The normal rate of Swedish mortality may now, in round figures, be said to be 20 per cent. less than it was in the average experience of the last hundred years.

The Swedish rate of mortality, compared with that of most of the other European countries whose death-rate has been ascertained, shows very favourable results.

TABLE U.—Proportion of deaths to inhabitants and to births in each province of Sweden, and collectively in its rural districts, in the towns, and in Stockholm, separately, for the two quinqennial periods, 1846-50 and 1851-55.

This table is an exception from all the others, inasmuch as they give results only for the whole kingdom, whilst, in this instance we have the results separately for the towns where the mortality exceeds that of the country to an extent to which but few parallels can be found elsewhere.

The mortality of the country districts was, from 1846-50, 1·99 per cent., or 1 in 50·25 ; in the towns collectively, 2·98 per cent., or 1 in 33·56 ; but in Stockholm no less than 3·85 per cent., or 1 in 25·97. Again, in 1851-55, it rose to 2·03 per cent., or 1 in 49·26 in the country districts; to 3·31 per cent., or 1 in 30·21 in the towns collectively; and to 4·46 per cent., or 1 in 22·42 in Stockholm. This rate of mortality, high as it is, is by no means exceptional in Stockholm; in the ten years, 1831-40, the mortality amongst males was 5·48 per cent., or 1 in 18·25 ; and the mortality amongst females 3·97 per cent., or 1 in 25·19. A correction of about 10 per cent. in the numbers, out of which one death has occurred in Stockholm, is, however, needful to balance the inaccuracy in the censuses of that capital prior to 1860, as explained under the remarks on Table E, *ante.*

TABLE W.—Deaths distributed according to months in Sweden, from 1749 to 1855, and in six other countries.

It will be observed that, on the average of one hundred and seven years, the month of April claims the maximum, or 10·03 per cent. of the aggregate deaths; the month of July the minimum, or 7·01 per cent.

The table would be more perfect if meteorological averages were accessible for the same period of time.

TABLE X.—Suicides in Sweden, from 1776 to 1855. This table separates the males from the females, and the single from the married, in three groups of ages, under 25 years, from 25 to 50, and above 50 years of age. It also gives the percentages borne by suicides, in each quinquennial period, to the total number of deaths from all causes. The results shown are very remarkable. The number of self-murderers (to use the words of literal translation from the Swedish, *antal sjelfmördare*) has increased in the present
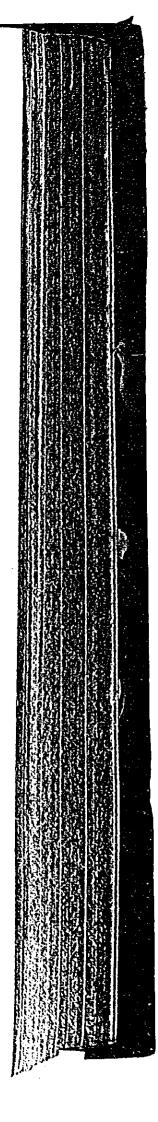
generation to nearly five times what it was eighty years ago. For example, in 1776-80, out of every 1,000 deaths of males, 1·1 was by suicide, but in 1851-55, no less than 5·2 ; out of every 1,000 deaths of females in 1776-80, 0·4 was by suicide, but in 1851-55 no less than 1·3.

TABLE Y.—Deaths from accidental causes. This table likewise gives results, from 1776 to 1855, for the separate periods of five years each. It distinguishes the deaths amongst males and amongst females, arising from the four causes of drowning, suffocation from the fumes of charcoal, destruction by lightning, and hydrophobia. The percentages of deaths from drowning (a certain proportion of which, doubtless, belong in strictness to suicides, and if ascertainable, would have been included in the preceding table), are given in the ratio borne to the total deaths. The maximum occurred in 1821-25, when the males drowned were no less than 3·14 per cent. of the males deceased from all causes. The minimum occurred in the first two periods from 1776 to 1785, when the proportion amongst males was 1·40 per cent.

TABLE Z.—This is the last table of the present selection of statistics, although it by no means exhausts the mine of valuable and curious materials contained in the Swedish official returns. It shows a class of facts, the interest and importance of which has been fully recognised by the statesmen and scientific men of all nations, viz., the proportion of deaths from small-pox and typhus fever, and of vaccinated to children born. These figures for Sweden, apply to the one hundred and seven years, 1749 to 1855. The scourge of small-pox reached its culminating point in the quinquennium 1751-55, when the deaths from small-pox were 35,415 in number, or 14·76 per cent. of the deaths from all causes. They gradually fell, with some fluctuations, as low as to 17,847 deaths in 1791-95 or 6·37 per cent. of the total deaths. In the five years immediately preceding the introduction of vaccination, viz., in 1796-1800, the small-pox deaths again rose to 23,381, or 7·83 per cent. In 1801-5 vaccination was systematically introduced ; the deaths from small-pox during that quinquennium fell to one-half what they were in the quinquennium preceding, viz., to 11,604 in number, and 3·99 in percentage to total deaths. Since that period, whilst the number of vaccinated children in its ratio to children born alive, has been increasing from its minimum of 13 per cent. in 1801-5, to its maximum of 81 per cent. in 1851-55; the maximum of small-pox deaths has been 4,888, in 1836-40, or 1·41 per cent. of total deaths, and their minimum has been 316, in 1841-45, or only 0·09 per cent.

The number of deaths from typhus and typhoid fevers was recorded from 1749 to 1830, but not subsequently. The maximum was 58,135 in the five years, 1806-10, being 15·32 per cent. of deaths

from all causes. The minimum was 16,495, in 1751-55, being 6·87 per cent. of deaths from all causes. The discontinuance of the record of deaths from this class of fevers, from 1830 to 1855, is perhaps not much to be regretted, as statistical nosology in Sweden, like in other countries, has until recently been in an imperfect condition. We have already noticed that the forms used for recording the causes of death in England have been introduced into Sweden, interesting comparative returns may, therefore, be looked for in future.

There is one circumstance that ought not to be overlooked in considering the statistics which prove the excessive rate of mortality in the Swedish towns, and that is the intensity with which the modern plague of cholera is felt there.

One of the best descriptions of the ravages of Cholera in Sweden which we have ever met with, was in a letter from Karlskrona, inserted in the German newspaper called the "Hamburg Cor-"respondenten," of the 14th October, 1853. The annexed is an abridged translation of this letter.

" *Karlskrona, Sweden.*—This is the town which has suffered most severely from the cholera. Upwards of 15,000 persons have died of this disease in Sweden, Norway, and Denmark, since midsummer. The victims in Sweden have been about as many as in Norway and Denmark together; in the latter kingdom about 5,000 died, the German portions remaining unscathed.

" In Scandinavia this plague raged most violently in Karlskrona and Norrko-ping, in Sweden, and in Christiania, the capital of Norway, but worst of all, in proportion to population in Karlskrona, where, up to the middle of September, nearly one-tenth part of the population had been swept off.

" In London, at the time of the fearful plague of 1665, one-eighth of the population died; Christiania is three times as large as Karlskrona, and yet a less number died there than here. But in Christiania the disease seized persons of every class, instead of being confined, as was the case in most other places, chiefly to the poorer classes.

" The following description of Christiania will give us some idea of the misery in Karlskrona. 'Christiania, in September, 1853. The cholera has assumed a frightful character, it attacks all classes, and no age is spared. Bad as the disease was in Copenhagen, it is much worse here, both with regard to the number of cases and the mortality. Many died within an hour or an hour and a-half. In this case they are almost instantaneously seized with cramp, of the terrible nature of which scarcely an idea can be formed. It requires not a little fortitude merely to witness its effects on the patient, to hear his heartrending cries, and to see his fruitless attempts to diminish the pain. On Sunday, the 4th of September, the church was completely crammed. Never, excepting on high festival days, were the churches seen so full, nor was there witnessed such excitement among the congregation, or such warmth of fervour in the preachers. The topic was the severe time of trial for the people. Sobs and sighs echoed through the churches, and every one prayed to the All Merciful. But even here the destroying angel appeared—in both churches two cases of cholera occurred during the service, so that the preacher had to stop while the sick were carried out. Many were led by this visitation to enter the House of the Lord, who otherwise never entered its doors.'

" Accounts from Karlskrona would be still more affecting, if we had a descrip-tion of the misery of this city. It is 173 years old, and its short history is replete with misfortunes. It was founded in 1680 (immediately after the peace of

Fontainebleau and Lund), when it received the name of Charles XI. The years in which this rock-bound city has most suffered from plague and other diseases, have been 1690, 1711, 1741, 1789, 1808, and 1833. Ten years after it was founded, a severe plague raged, the number of whose victims is uncertain. Twenty years later came the plague (which also visited Hamburg severely) and carried off in the town alone 7,000 persons, in the whole district (Län) 20,000. A gravestone at Karlskrona still preserves the remembrance of this terrible plague year. In 1741 there raged an extremely fatal disease (which first broke out on board the fleet), and from which 25,000 persons died. How many of these belonged to the com-munity of Karlskrona is not known, but reports of that time state that this place was like plague-visited Egypt, where according to the Bible (Exodus xii, 30) 'there was not a house where there was not one dead.' In 1789 a plague was brought over by a ship (by Russian prisoners), from which more than 6,000 died. In 1808 a contagious disease raged first in the fleet and then in Karlskrona itself. Many surviving eye witnesses of that dreadful misery, shudder at the bare remembrance of it. In the enchanting 'nachtigallsthal,' repose the bones of many thousands of its victims."

There can be no doubt that the way in which statistical evidence shows that small-pox was overcome in Sweden by the introduction of vaccination, ought to be understood by the Swedish people as a lesson that the mortality from epidemics can be diminished within certain given limits, and that this is no mere dream of philosophical theory, but a fact which their own experience proves. At the same time, the doctrine of limits must never be forgotten in this matter, or there will arise the disappointment of non-realization of all the results anticipated by those sanitary reformers, who call all mortality above 17 in the 1,000 "preventible mortality."

It is said that one cause of evil—intemperance in the abuse of ardent spirits, has somewhat diminished in Sweden through the influence of legislation, which greatly restricts the number of distil-leries; but let us further hope that other evils will quickly disappear, and that the promotion of good drainage, of regulations to prevent over crowding, noxious emanations, unhealthy food and water, and those physical enemies which destroy the moral faculties, will be so fostered and encouraged in the future of its free and enlightened community, that the result may be shown in the rate of town mortality more nearly approaching, than hitherto; the rate prevailing in its country districts, which it must be admitted by statisticians is highly favourable and encouraging. If these words of ours should in any way, even indirectly, tend to further inquiry being made in that direction, it would be a source of much satisfaction. In England we feel a high degree of esteem for the Scandinavian race, and their welfare is, in every respect, dear to us; hence it will always be a pleasing task to seek for the evidence of their progress, even though it be embodied in the unrhetorical form of a statistical table.

TABLE A.—*Population of* SWEDEN, *and various Statistical Results relating thereto, in each of the* 107 *Years,* 1749-1855.

Year.	Population.	Marriages.	Marriages Dissolved by Death.	Children Born Alive.	Deaths.	Of which Deaths were	
						Males.	Females.
1748	1,736,482	—	—	—	—	—	—
'49	1,746,449	15,046	12,184	59,483	49,516	24,042	25,474
'50	1,763,338	16,374	11,304	64,511	47,622	23,441	24,181
'51	1,785,727	16,599	12,018	69,291	46,902	23,082	23,820
'52	1,799,188	16,761	10,519	64,973	49,467	24,573	24,894
'53	1,819,245	15,923	10,655	66,007	43,905	21,813	22,092
'54	1,837,314	17,457	12,115	68,759	48,645	24,167	24,478
'55	1,853,689	17,097	12,045	70,008	51,090	24,998	26,092
'56	1,867,070	16,005	13,091	67,987	52,062	25,847	26,215
'57	1,870,372	15,078	13,980	61,675	55,829	27,278	28,551
'58	1,867,699	15,273	17,443	63,262	60,527	29,362	31,165
'59	1,876,994	18,529	14,511	63,865	49,162	24,308	24,854
'60	1,893,248	18,705	13,599	68,384	46,721	22,973	23,748
'61	1,916,848	18,253	12,494	67,324	49,143	24,244	24,899
'62	1,930,541	17,428	15,012	68,268	59,994	29,547	30,447
'63	1,940,011	16,850	15,910	68,231	64,180	31,874	32,306
'64	1,954,077	17,219	14,604	67,988	53,364	26,461	26,903
'65	1,964,824	16,066	15,527	65,872	54,566	27,382	27,184
'66	1,981,600	16,419	13,421	67,061	49,726	24,767	24,959
'67	1,997,447	16,539	15,077	70,744	51,272	25,741	25,531
1768	2,006,790	17,039	13,538	67,719	54,751	27,202	27,549
'69	2,015,127	16,463	13,389	66,954	54,991	27,047	27,944
'70	2,030,574	16,537	14,038	67,172	53,071	26,163	26,908
'71	2,041,081	15,873	16,411	65,988	56,827	28,266	28,561
'72	2,025,037	13,928	23,023	58,972	76,362	38,871	37,491
'73	1,972,407	15,560	27,638	51,164	105,139	51,620	53,519
'74	1,997,809	17,433	10,789	68,520	44,463	21,535	22,928
'75	2,020,847	19,002	13,100	71,642	49,949	24,573	25,376
'76	2,041,289	18,310	12,928	66,869	45,692	22,630	23,062
'77	2,057,147	18,577	13,356	67,693	51,096	25,259	25,837
'78	2,073,296	18,692	12,496	71,901	55,028	27,583	27,445
'79	2,089,624	18,035	12,160	76,387	59,325	29,210	30,115
'80	2,118,281	17,938	12,060	75,122	45,731	22,864	22,867
'81	2,132,912	16,638	14,353	71,130	54,313	27,100	27,213
'82	2,140,986	16,415	17,773	68,488	58,247	29,466	28,781
'83	2,143,570	17,124	16,121	64,969	60,213	30,739	29,474
'84	2,145,213	16,031	15,548	67,605	63,792	32,272	31,520
'85	2,149,773	16,791	15,864	67,497	60,770	30,260	30,510
'86	2,156,109	17,297	16,373	70,935	55,951	28,079	27,872
'87	2,163,812	17,253	15,994	68,328	51,998	26,163	25,835
1788	2,171,866	17,235	15,261	74,019	57,320	28,681	28,639
'89	2,163,765	17,369	18,583	70,127	69,583	37,608	31,975
'90	2,158,232	18,063	18,100	66,710	63,598	32,425	31,173
'91	2,178,719	23,786	16,465	71,613	55,946	27,712	28,234
'92	2,211,643	22,191	14,166	81,063	52,958	26,696	26,262
'93	2,239,119	19,934	13,985	77,033	54,376	27,219	27,157
'94	2,266,990	18,509	14,341	76,429	53,377	26,822	26,555
'95	2,281,137	17,279	17,626	72,947	63,619	31,612	32,007
'96	2,300,793	19,747	14,274	79,446	56,474	28,502	27,972
'97	2,322,814	19,523	14,868	80,374	55,036	27,865	27,171
'98	2,344,228	19,349	15,043	78,593	53,862	27,186	26,676
'99	2,356,993	17,283	16,827	75,274	59,192	29,950	29,242
1800	2,347,303	17,528	19,692	67,555	73,928	36,751	37,177

TABLE A.—*Population of* SWEDEN, &c.—*Contd.*

Year.	Population.	Marriages.	Marriages Dissolved by Death.	Children Born Alive.	Deaths.	Of which Deaths were	
						Males.	Females.
1801	2,356,027	17,057	16,457	70,629	61,317	30,529	30,788
'02 ...	2,374,358	18,500	15,880	74,963	56,035	28,103	27,932
'03 ...	2,391,837	19,491	16,117	74,644	56,577	28,401	28,176
'04	2,408,108	19,335	17,284	76,443	59,584	29,995	29,589
'05	2,427,408	20,197	16,094	76,552	56,663	28,168	28,495
'06	2,428,729	19,492	16,963	74,581	65,728	32,724	33,004
'07	2,434,721	19,959	17,789	75,842	62,318	30,713	31,575
'08	2,418,840	19,762	22,141	73,963	82,311	41,890	40,421
'09	2,382,075	18,817	26,859	64,300	93,532	47,574	45,958
'10	2,377,851	25,780	20,311	78,916	75,607	38,095	37,512
'11	2,396,581	25,615	18,898	84,862	69,246	35,244	34,002
'12	2,407,679	22,054	21,580	81,079	73,095	36,992	36,103
'13	2,416,548	18,745	18,057	72,021	66,266	33,810	32,456
'14	2,434,541	18,281	15,664	75,837	60,959	30,534	30,425
'15	2,465,066	23,553	15,504	85,239	57,829	28,908	28,921
'16	2,497,484	23,069	14,625	87,644	56,225	28,639	27,586
'17	2,521,442	20,938	16,518	83,821	60,863	30,456	30,407
'18	2,546,411	21,427	17,188	85,714	61,745	31,410	30,335
'19	2,561,780	20,795	19,305	84,250	69,881	35,182	34,699
'20	2,584,690	21,722	17,585	84,841	62,930	31,572	31,358
1821	2,610,870	22,890	16,506	92,072	66,416	33,466	32,950
'22 ...	2,646,314	24,431	16,633	94,309	59,390	30,500	28,890
'23 ...	2,689,031	23,993	16,171	98,259	56,067	28,802	27,265
'24 ..	2,726,877	23,907	15,473	93,577	56,256	29,071	27,185
'25	2,771,252	23,640	15,638	100,315	56,465	29,180	27,285
'26	2,804,926	22,525	17,315	97,125	63,027	32,387	30,640
'27	2,827,719	20,339	19,496	88,138	64,920	32,963	31,957
'28	2,846,788	22,440	21,347	95,354	75,860	39,226	36,634
'29	2,863,132	22,581	23,023	99,488	82,719	42,415	40,304
'30	2,888,082	22,222	19,970	94,626	69,251	35,783	33,468
'31	2,901,039	19,983	21,567	88,253	75,274	38,404	36,870
'32	2,922,801	20,935	19,285	89,862	68,078	34,063	34,015
'33	2,959,141	23,029	18,067	100,309	63,947	32,637	31,310
'34	2,983,055	23,803	21,919	100,231	76,294	39,105	37,189
'35	3,025,439	22,533	16,107	98,144	55,738	28,495	27,243
'36	3,059,355	21,816	16,765	96,857	60,763	30,967	29,796
'37	3,076,184	21,153	20,982	94,616	75,611	38,621	36,990
'38	3,090,262	18,774	21,367	90,565	74,309	38,086	36,223
'39	3,106,459	20,963	21,469	91,363	72,988	36,913	36,075
'40	3,138,887	22,071	18,481	98,160	63,555	32,370	31,185
1841	3,173,160	22,519	17,269	95,734	61,279	31,186	30,093
'42 ...	3,206,776	22,691	18,310	100,976	67,177	34,388	32,789
'43 ...	3,236,632	23,167	19,295	99,154	79,115	34,932	34,183
'44 ...	3,275,133	24,208	17,980	104,693	66,009	34,470	31,539
'45	3,316,536	24,009	17,059	103,660	62,074	32,102	29,972
'46	3,342,927	22,981	19,102	99,703	72,683	36,784	35,899
'47	3,362,072	28,858	21,749	99,179	79,405	40,149	39,256
'48	3,397,454	24,729	19,005	102,524	66,513	33,790	32,723
'49	3,441,286	26,891	18,175	112,304	67,842	34,885	32,957
'50	3,482,541	26,267	18,535	110,399	68,514	35,595	32,919
'51	3,517,759	25,750	19,733	111,065	72,506	37,578	34,928
'52	3,540,421	24,150	22,120	108,305	80,090	41,350	38,740
'53	3,562,543	25,596	22,411	111,407	84,017	42,786	41,261
'54	3,605,321	27,585	18,811	120,107	70,846	36,006	34,840
'55	3,639,332	27,253	20,765	115,072	77,734	38,946	38,788

TABLE A.—*Population of* SWEDEN, *&c.—Contd.*

Year.	Quality of Harvest.	Yearly Increase per Cent. of Population.	Inhabitants to One Marriage.	Marriages Dissolved by Death, to One Marriage Contracted.	Inhabitants to One Living Child Born.	Living Children Born to One Marriage Contracted.
1748	I	—	—	—	—	—
'49	II	+ 0·57	115	0·81	29·2	3·95
'50	IX	0·97	107	0·69	27·0	3·94
'51	VI	1·27	106	0·72	25·4	4·18
'52	VI	0·75	106	0·63	27·5	3·88
'53	IX	1·12	113	0·67	27·2	4·15
'54	VI	0·99	104	0·69	26·4	3·94
'55	VI	0·89	107	0·70	26·2	4·10
'56	I	0·72	116	0·82	27·3	4·25
'57	I	0·18	124	0·93	30·2	4·09
'58	VI	− 0·14	122	1·14	29·6	4·14
'59	IX	+ 0·50	101	0·78	29·2	3·45
'60	VI	0·87	100	0·73	27·4	3·66
'61	II	1·25	104	0·68	28·1	3·69
'62	O	0·71	110	0·86	28·1	3·92
'63	I	0·49	115	0·94	28·3	4·05
'64	I	0·73	113	0·85	28·5	3·95
'65	VI	0·55	122	0·97	29·6	4·10
'66	VI	0·85	119	0·82	29·3	4·09
'67	VI	0·80	119	0·91	28·0	4·28
1768	IX	0·47	117	0·79	29·5	3·98
'69	IX	0·42	122	0·81	29·9	4·07
'70	VI	0·77	122	0·85	30·0	4·06
'71	O	0·52	128	1·03	30·8	4·16
'72	I	− 0·79	147	1·65	34·6	4·24
'73	VI	− 2·61	130	1·78	39·5	3·29
'74	VI	+ 1·29	113	0·62	28·8	3·93
'75	I	1·15	105	0·69	27·9	3·77
'76	VI	1·06	110	0·71	30·2	3·65
'77	IX	0·78	109	0·72	30·1	3·64
'78	VI	0·78	110	0·67	28·6	3·85
'79	IX	0·79	115	0·67	27·1	4·24
'80	I	1·37	116	0·67	27·8	4·19
'81	I	0·69	127	0·86	29·8	4·28
'82	I	0·38	130	1·08	31·1	4·17
'83	I	0·12	125	0·94	33·0	3·79
'84	VI	0·08	134	0·97	31·7	4·22
'85	I	0·26	128	0·94	31·8	4·02
'86	VI	0·29	124	0·95	30·3	4·10
'87	IX	0·36	125	0·93	31·5	3·96
1788	VIII	0·37	126	0·89	29·2	4·30
'89	VI	− 0·37	125	1·07	30·9	4·04
'90	IX	− 0·26	119	1·00	32·4	3·69
'91	VIII	+ 0·95	91	0·69	30·1	3·01
'92	VI	1·51	98	0·64	26·9	3·65
'93	VIII	0·79	111	0·70	28·7	3·86
'94	VIII	1·25	121	0·77	29·3	4·13
'95	VIII	0·62	131	1·02	31·0	4·22
'96	VI	0·86	116	0·72	28·7	4·02
'97	VI	0·96	118	0·77	28·6	4·12
'98	I	0·92	120	0·78	29·5	4·06
'99	I	0·54	136	0·97	31·1	4·36
1800	I	− 0·41	134	1·12	34·9	3·86
'01	VI	+ 0·37	138	0·96	33·2	4·14

. TABLE A.—*Population of* SWEDEN, *&c.—Contd.*

Year.	Quality of Harvest.	Yearly Increase per Cent. of Population.	Inhabitants to One Marriage.	Marriages Dissolved by Death, to One Marriage Contracted.	Inhabitants to One Living Child Born.	Living Children Born to One Marriage Contracted.
1802	VI	0·78	127	0·86	31·4	4·05
'03	VIII	0·74	122	0·83	31·8	3·83
'04	VI	0·68	124	0·89	31·3	3·96
'05	IV	0·80	119	0·80	31·4	3·79
'06	VI	0·05	125	0·87	32·5	3·83
'07	V	+ 0·25	122	0·89	32·0	3·80
'08	IV	− 0·65	123	1·12	32·9	3·74
'09	VIII	− 1·52	129	1·43	37·6	3·41
'10	VIII	− 0·18	92	0·79	30·2	3·06
'11	III	+ 0·79	93	0·74	28·0	3·31
'12	II	0·46	109	0·98	29·5	3·67
'13	V	0·37	128	0·96	33·4	3·84
'14	VII	0·74	132	0·86	31·8	4·14
'15	VIII	1·25	103	0·66	28·5	3·61
'16	II	1·31	107	0·63	28·1	3·80
'17	V	0·96	119	0·79	29·8	4·00
'18	III	0·99	118	0·80	29·4	4·00
'19	VII	0·60	122	0·93	30·2	4·05
'20	IX	0·89	118	0·81	30·2	3·90
'21	VII	1·01	113	0·72	28·1	4·02
1822	V	1·30	107	0·68	27·7	3·86
'23	VIII	1·61	110	0·67	26·9	4·09
'24	VIII	1·41	112	0·65	28·7	3·91
'25	VI	1·63	115	0·66	27·2	4·24
'26	II	1·22	123	0·77	28·5	4·31
'27	VIII	0·81	138	0·96	31·8	4·33
'28	VIII	0·67	126	0·95	29·8	4·25
'29	VI	0·57	126	1·02	28·6	4·40
'30	V	0·87	129	0·90	30·2	4·25
'31	IV	0·45	145	1·08	32·7	4·41
'32	VIII	0·75	139	0·92	32·3	4·29
'33	VI	1·24	127	0·78	29·1	4·35
'34	V	0·81	124	0·92	29·5	4·21
'35	VII	1·42	132	0·71	30·4	4·35
'36	VI	1·12	138	0·77	31·2	4·44
'37	IV	0·55	145	0·99	32·3	4·47
'38	VII	0·46	164	1·14	33·9	4·82
'39	VI	0·52	147	1·02	33·8	4·36
'40	VII	1·04	141	0·84	31·6	4·44
'41	II	1·09	139	0·77	32·8	4·25
1842	V	1·06	140	0·81	31·4	4·45
'43	IV	0·93	138	0·83	32·3	4·28
'44	V	1·19	134	0·74	30·9	4·32
'45	III	1·26	136	0·71	31·6	4·32
'46	V	0·80	144	0·83	33·3	4·34
'47	VI	0·57	116	0·75	33·7	3·43
'48	VII	1·05	136	0·77	32·8	4·14
'49	V	1·29	126	0·68	30·2	4·18
'50	VI	1·20	131	0·71	31·2	4·20
'51	V	1·01	135	0·77	31·3	4·31
'52	VII	0·64	145	0·92	32·5	4·48
'53	V	0·62	138	0·88	31·8	4·35
'54	VI	1·20	129	0·68	29·6	4·35
'55	VII	0·94	122	0·76	31·3	4·22

TABLE A.—*Population of* SWEDEN, &c.—*Contd.*

Year.	Births of *Males* to 1,000 Births of Females.	Inhabitants to *One* Death.	Living Children Born to *One* Death.	*Deaths* of *Females* to *One* Death of Males.	Deaths from Small Pox, to 100 Deaths from all Causes.	Deaths from Typhus and Typhoid Fever to 100 Deaths from all Causes.
1748 ...	—	—	—	—	—	—
'49 ...	1,024	35·0	1·20	1·06	8·99	7·97
'50 ...	1,036	36·7	1·30	1·03	12·97	7·52
'51 ...	1,036	37·6	1·47	1·03	11·82	7·24
'52 ...	1,013	36·1	1·31	1·01	20·82	5·78
'53 ...	1,047	40·9	1·50	1·01	18·22	7·12
'54 ...	1,034	37·4	1·41	1·01	14·10	7·21
'55 ...	1,047	36·0	1·37	1·04	9·21	7·07
'56 ...	1,034	35·6	1·31	1·01	15·09	8·30
'57 ...	1,058	33·4	1·10	1·04	18·34	9·86
'58 ...	1,051	30·9	1·04	1·06	11·73	9·29
'59 ...	1,058	37·9	1·30	1·02	7·95	11·01
'60 ...	1,030	40·2	1·46	1·03	7·64	11·42
'61 ...	1,051	38·5	1·37	1·02	11·66	9·67
'62 ...	1,045	32·1	1·14	1·03	15·64	10·03
'63 ...	1,048	30·1	1·06	1·01	18·17	13·00
'64 ...	1,052	36·3	1·27	1·01	8·55	13·77
'65 ...	1,054	35·8	1·20	0·99	8·61	11·21
'66 ...	1,041	39·5	1·34	1·01	8·23	10·95
'67 ...	1,044	38·6	1·38	0·99	8·17	10·00
1768 ...	1,048	36·5	1·23	1·01	19·45	7·41
'69 ...	1,036	36·5	1·22	1·03	18·56	8·18
'70 ...	1,044	38·0	1·26	1·03	9·82	8·58
'71 ...	1,023	35·7	1·16	1·01	7·67	10·53
'72 ...	1,045	26·7	0·77	0·96	7·12	16·82
'73 ...	1,037	19·3	0·48	1·03	11·53	19·15
'74 ...	1,036	44·4	1·54	1·06	4·64	11·12
'75 ...	1,037	40·0	1·43	1·03	2·55	9·85
'76 ...	1,049	44·2	1·46	1·02	3·29	11·72
'77 ...	1,041	40·0	1·32	·1·02	3·80	8·69
'78 ...	1,043	37·4	1·30	0·99	12·00	7·88
'79 ...	1,056	34·9	1·28	1·03	25·45	6·67
'80 ...	1,043	45·7	1·64	1·00	7·37	7·42
'81 ...	1,049	39·0	1·31	1·00	2·73	7·61
'82 ...	1,049	36·6	1·17	0·97	4·26	8·66
'83 ...	1,043	35·5	1·07	0·96	6·50	9·07
'84 ...	1,021	33·6	1·06	0·97	19·52	10·18
'85 ...	1,038	35·3	1·11	1·01	8·35	11·16
'86 ...	1,045	38·4	1·27	0·99	1·20	12·49
'87 ...	1,053	41·5	1·31	0·98	3·41	12·50
1788 ...	1,059	37·7	1·29	0·99	9·53	10·22
'89 ...	1,048	31·2	1·01	0·85	9·72	20·44
'90 ...	1,047	34·0	1·05	0·96	9·26	17·94
'91 ...	1,051	38·6	1·28	1·02	5·54	14·76
'92 ...	1,058	41·1	1·53	0·98	3·66	7·98
'93 ...	1,036	40·6	1·41	0·99	3·87	8·33
'94 ...	1,037	41·9	1·43	0·99	7·42	8·38
'95 ...	1,052	35·6	1·14	1·01	10·59	7·89
'96 ...	1,038	40·4	1·41	0·98	7·97	6·79
'97 ...	1,050	41·8	1·46	0·99	3·15	7·52
'98 ...	1,054	43·1	1·46	0·98	2·52	8·79
'99 ...	1,056	39·6	1·27	0·97	6·34	8·32
1800 ...	1,060	31·9	0·91	1·01	16·27	7·98
'01 ...	1,054	38·2	1·15	1·01	9·88	9·12

Year.	Births of *Males* to 1,000 Births of Females.	Inhabitants to *One* Death.	Living Children Born to *One* Death.	*Deaths* of *Females* to *One* Death of Males.	Deaths from Small Pox, to 100 Deaths from all Causes.	Deaths from Typhus and Typhoid Fever to 100 Deaths from all Causes.
1802 ...	1,046	42·0	1·33	0·99	2·73	10·06
'03 ...	1,048	41·9	1·32	0·99	2·59	11·07
'04 ...	1,043	40·1	1·28	0·98	2·45	11·51
'05 ...	1,046	42·5	1·35	1·01	1·92	10·63
'06 ...	1,027	36·8	1·13	1·01	2·25	10·92
'07 ...	1,062	38·9	1·21	1·02	3·41	12·94
'08 ...	1,051	29·6	0·89	0·96	2·20	15·22
'09 ...	1,030	25·8	0·67	0·96	2·57	22·63
'10 ...	1,052	31·5	1·04	0·98	1·09	12·16
'11 ...	1,041	34·3	1·22	0·96	1·01	10·73
'12 ...	1,043	32·8	1·11	0·97	0·55	11·02
'13 ...	1,048	36·3	1·09	0·96	0·82	9·45
'14 ...	1,039	39·6	1·24	0·99	0·50	9·11
'15 ...	1,046	42·1	1·47	1·00	0·81	9·21
'16 ...	1,044	43·8	1·56	0·96	1·23	8·16
'17 ...	1,040	41·0	1·37	1·00	0·40	9·51
'18 ...	1,053	40·8	1·39	0·96	0·49	10·30
'19 ...	1,051	36·4	1·20	0·99	0·23	10·32
'20 ...	1,053	40·7	1·35	0·99	0·23	9·34
'21 ...	1,050	38·9	1·38	0·98	0·06	8·81
1822 ...	1,047	43·9	1·58	0·95	0·02	8·65
'23 ...	1,044	47·2	1·75	0·95	0·07	7·43
'24 ...	1,044	47·8	1·66	0·93	1·10	6·94
'25 ...	1,038	48·3	1·78	0·93	2·20	7·01
'26 ...	1,044	43·9	1·54	0·95	0·99	8·40
'27 ...	1,045	43·2	1·36	0·97	0·92	12·12
'28 ...	1,041	37·2	1·25	0·93	0·34	12·98
'29 ...	1,045	34·4	1·20	0·95	0·06	11·20
'30 ...	1,050	41·3	1·36	0·93	0·15	10·62
'31 ...	1,058	38·3	1·17	0·96	0·81	—
'32 ...	1,050	42·6	1·32	1·00	0·91	—
'33 ...	1,047	45·7	1·57	0·96	1·79	—
'34 ...	1,048	38·8	1·31	0·95	1·37	—
'35 ...	1,046	53·5	1·76	0·95	0·80	—
'36 ...	1,049	49·8	1·59	0·96	0·22	—
'37 ...	1,040	40·4	1·25	0·96	0·48	—
'38 ...	1,038	41·4	1·22	0·95	2·43	—
'39 ...	1,045	42·3	1·25	0·98	2·65	—
'40 ...	1,050	48·9	1·54	0·96	1·02	—
'41 ...	1,040	51·2	1·56	0·96	0·39	—
1842 ...	1,040	47·2	1·50	0·95	0·09	—
'43 ...	1,050	46·4	1·43	0·98	0·01	—
'44 ...	1,042	49·0	1·60	0·91	0·01	—
'45 ...	1,029	52·7	1·67	0·93	0·01	—
'46 ...	1,058	45·6	1·37	0·98	0·00	—
'47 ...	1,054	42·1	1·25	0·98	0·02	—
'48 ...	1,047	50·5	1·54	0·97	0·11	—
'49 ...	1,040	50·1	1·65	0·94	0·50	—
'50 ...	1,052	50·2	1·61	0·92	2·01	—
'51 ...	1,050	48·0	1·53	0·93	3·43	—
'52 ...	1,057	43·9	1·35	0·93	1·91	—
'53 ...	1,044	42·1	1·32	0·96	0·33	—
'54 ...	1,043	50·3	1·69	0·97	0·29	—
'55 ...	1,058	46·5	1·48	1·00	0·05	—

TABLE B.—*The proportion that* DIED *in each Year of* LIFE *(or Co-efficients of Mortality), at Ten separate Epochs, between the Years 1755 and 1855.*

PART I.—*For* MALES *separately.*

Age.	Sweden and Finland.						Sweden alone.			
	1755 to 1757.	1758 to 1760.	1761 to 1763.	1755 to 1775.	1776 to 1795.	1801 to 1805.	1816 to 1840.	1841 to 1845.	1846 to 1850.	1851 to 1855.
0	0·2353	0·2091	0·2434	0·2153	0·2124	0·2020	0·1797	0·1662	0·1643	0·1597
1	0·0700	0·0508	0·0751	0·0642	0·0689	0·0590	0·1479	0·0369	0·0403	0·0420
2	0·0477	0·0401	0·0537	0·0481	0·0423	0·0347	0·0283	0·0267	0·0272	0·0304
3	0·0365	0·0290	0·0373	0·0340	0·0318	0·0244	0·0182	0·0175	0·0195	0·0224
4	0·0233	0·0180	0·0284	0·0231	0·0243	0·0188	0·0123	0·0129	0·0140	0·0166
5	0·0198	0·0156	0·0215	0·0193	0·0227	0·0165	0·0109	0·0108	0·0117	0·0133
6	0·0163	0·0140	0·0183	0·0162	0·0172	0·0128	0·0089	0·0092	0·0097	0·0108
7	0·0129	0·0126	0·0161	0·0140	0·0128	0·0102	0·0076	0·0078	0·0083	0·0090
8	0·0101	0·0114	0·0145	0·0124	0·0095	0·0087	0·0066	0·0065	0·0068	0·0077
9	0·0085	0·0095	0·0120	0·0110	0·0080	0·0074	0·0056	0·0053	0·0056	0·0064
10	0·0074	0·0076	0·0095	0·0091	0·0074	0·0060	0·0051	0·0045	0·0048	0·0052
11	0·0066	0·0064	0·0080	0·0081	0·0070	0·0056	0·0047	0·0044	0·0044	0·0051
12	0·0065	0·0060	0·0070	0·0075	0·0068	0·0053	0·0044	0·0043	0·0045	0·0051
13	0·0063	0·0060	0·0067	0·0069	0·0065	0·0050	0·0044	0·0045	0·0045	0·0051
14	0·0062	0·0059	0·0063	0·0064	0·0064	0·0050	0·0048	0·0045	0·0046	0·0051
15	0·0061	0·0061	0·0064	0·0066	0·0064	0·0054	0·0049	0·0045	0·0047	0·0052
16	0·0063	0·0064	0·0066	0·0067	0·0064	0·0054	0·0051	0·0047	0·0047	0·0052
17	0·0065	0·0070	0·0068	0·0070	0·0066	0·0056	0·0056	0·0047	0·0049	0·0054
18	0·0067	0·0073	0·0071	0·0074	0·0070	0·0056	0·0057	0·0048	0·0050	0·0055
19	0·0075	0·0079	0·0077	0·0080	0·0074	0·0064	0·0065	0·0050	0·0050	0·0057
20	0·0086	0·0088	0·0085	0·0088	0·0081	0·0071	0·0067	0·0062	0·0059	0·0066
21	0·0087	0·0094	0·0091	0·0092	0·0086	0·0076	0·0073	0·0069	0·0066	0·0071
22	0·0089	0·0096	0·0092	0·0095	0·0090	0·0078	0·0079	0·0071	0·0069	0·0075
23	0·0090	0·0099	0·0095	0·0098	0·0094	0·0079	0·0081	0·0073	0·0072	0·0078
24	0·0091	0·0100	0·0096	0·0100	0·0097	0·0080	0·0086	0·0077	0·0076	0·0080
25	0·0092	0·0103	0·0097	0·0101	0·0099	0·0080	0·0088	0·0077	0·0077	0·0081
26	0·0095	0·0104	0·0100	0·0102	0·0102	0·0081	0·0094	0·0078	0·0079	0·0085
27	0·0096	0·0107	0·0101	0·0105	0·0105	0·0082	0·0098	0·0080	0·0081	0·0087
28	0·0098	0·0111	0·0104	0·0108	0·0108	0·0082	0·0102	0·0082	0·0081	0·0091
29	0·0101	0·0114	0·0107	0·0111	0·0111	0·0085	0·0105	0·0083	0·0085	0·0093
30	0·0106	0·0116	0·0110	0·0113	0·0114	0·0085	0·0109	0·0088	0·0089	0·0096
31	0·0109	0·0119	0·0111	0·0114	0·0115	0·0088	0·0113	0·0094	0·0091	0·0100
32	0·0113	0·0120	0·0115	0·0115	0·0117	0·0090	0·0116	0·0099	0·0095	0·0101
33	0·0114	0·0124	0·0118	0·0119	0·0118	0·0091	0·0121	0·0104	0·0100	0·0109
34	0·0117	0·0125	0·0122	0·0120	0·0120.	0·0095	0·0124	0·0108	0·0105	0·0113
35	0·0119	0·0129	0·0126	0·0124	0·0121	0·0098	0·0127	0·0112	0·0113	0·0116
36	0·0122	0·0132	0·0129	0·0127	0·0123	0·0101	0·0131	0·0119	0·0119	0·0121
37	0·0124	0·0136	0·0133	0·0129	0·0124	0·0106	0·0136	0·0123	0·0126	0·0126
38	0·0128	0·0144	0·0142	0·0135	0·0126	0·0110	0·0140	0·0128	0·0131	0·0133
39	0·0131	0·0155	0·0151	0·0148	0·0133	0·0119	0·0147	0·0135	0·0138	0·0142
40	0·0142	0·0170	0·0163	0·0161	0·0150	0·0126	0·0151	0·0140	0·0143	0·0149
41	0·0149	0·0185	0·0173	0·0168	0·0157	0·0132	0·0159	0·0146	0·0149	0·0157
42	0·0158	0·0191	0·0183	0·0173	0·0159	0·0135	0·0168	0·0153	0·0155	0·0165
43	0·0165	0·0199	0·0189	0·0181	0·0162	0·0141	0·0158	0·0158	0·0163	0·0171
44	0·0172	0·0205	0·0195	0·0186	0·0167	0·0147	0·0185	0·0166	0·0169	0·0178
45	0·0180	0·0210	0·0199	0·0190	0·0179	0·0153	0·0191	0·0170	0·0176	0·0185
46	0·0188	0·0216	0·0206	0·0196	0·0186	0·0162	0·0203	0·0175	0·0185	0·0191
47	0·0197	0·0224	0·0210	0·0202	0·0190	0·0173	0·0213	0·0182	0·0194	0·0198
48	0·0206	0·0234	0·0217	0·0212	0·0194	0·0182	0·0222	0·0190	0·0202	0·0207

TABLE B.—*The proportion that* DIED *in each Year of* LIFE—*Contd.*

PART I.—*For* MALES—*Contd.*

Age.	Sweden and Finland.						Sweden alone.			
	1755 to 1757.	1758 to 1760.	1761 to 1763.	1755 to 1775.	1776 to 1795.	1801 to 1805.	1816 to 1840.	1841 to 1845.	1846 to 1850.	1851 to 1855.
49	0·0213	0·0242	0·0225	0·0224	0·0205	0·0203	0·0234	0·0197	0·0214	0·0217
50	0·0223	0·0256	0·0236	0·0237	0·0217	0·0227	0·0244	0·0214	0·0227	0·0231
51	0·0231	0·0268	0·0247	0·0248	0·0229	0·0243	0·0259	0·0227	0·0241	0·0243
52	0·0242	0·0283	0·0257	0·0263	0·0237	0·0252	0·0268	0·0240	0·0251	0·0256
53	0·0250	0·0297	0·0270	0·0273	0·0249	0·0258	0·0283	0·0253	0·0264	0·0267
54	0·0260	0·0309	0·0283	0·0287	0·0258	0·0265	0·0296	0·0264	0·0279	0·0281
55	0·0267	0·0325	0·0295	0·0298	0·0267	0·0275	0·0310	0·0274	0·0289	0·0295
56	0·0283	0·0339	0·0311	0·0314	0·0283	0·0298	0·0325	0·0288	0·0305	0·0309
57	0·0298	0·0357	0·0328	0·0327	0·0298	0·0323	0·0339	0·0302	0·0319	0·0326
58	0·0313	0·0370	0·0349	0·0345	0·0310	0·0348	0·0357	0·0319	0·0333	0·0343
59	0·0334	0·0388	0·0373	0·0368	0·0323	0·0369	0·0379	0·0337	0·0349	0·0363
60	0·0363	0·0403	0·0396	0·0389	0·0357	0·0400	0·0400	0·0357	0·0368	0·0383
61	0·0387	0·0424	0·0420	0·0416	0·0398	0·0420	0·0426	0·0381	0·0387	0·0407
62	0·0406	0·0443	0·0447	0·0438	0·0443	0·0439	0·0455	0·0405	0·0406	0·0430
63	0·0424	0·0463	0·0472	0·0466	0·0475	0·0445	0·0480	0·0438	0·0433	0·0456
64	0·0447	0·0490	0·0500	0·0497	0·0498	0·0491	0·0515	0·0483	0·0472	0·0488
65	0·0467	0·0515	0·0531	0·0532	0·0544	0·0527	0·0551	0·0531	0·0557	0·0524
66	0·0490	0·0543	0·0566	0·0567	0·0602	0·0552	0·0595	0·0582	0·0626	0·0573
67	0·0520	0·0580	0·0606	0·0606	0·0654	0·0605	0·0637	0·0625	0·0676	0·0623
68	0·0549	0·0615	0·0639	0·0651	0·0700	0·0657	0·0680	0·0659	0·0717	0·0674
69	0·0591	0·0661	0·0676	0·0707	0·0742	0·0746	0·0740	0·0697	0·0763	0·0727
70	0·0657	0·0720	0·0719	0·0767	0·0784	0·0851	0·0804	0·0745	0·0811	0·0789
71	0·0733	0·0796	0·0767	0·0831	0·0832	0·0903	0·0886	0·0800	0·0862	0·0867
72	0·0810	0·0872	0·0823	0·0899	0·0894	0·0962	0·0966	0·0859	0·0926	0·0955
73	0·0889	0·0963	0·0888	0·0972	0·0952	0·1044	0·1041	0·0933	0·1008	0·1050
74	0·0983	0·1065	0·0947	0·1050	0·1027	0·1151	0·1115	0·1023	0·1099	0·1151
75	0·1082	0·1144	0·1005	0·1093	0·1099	0·1250	0·1192	0·1132	0·1195	0·1243
76	0·1165	0·1194	0·1083	0·1127	0·1172	0·1312	0·1273	0·1227	0·1285	0·1315
77	0·1231	0·1245	0·1151	0·1195	0·1246	0·1387	0·1343	0·1334	0·1371	0·1383
78	0·1329	0·1310	0·1257	0·1257	0·1329	0·1468	0·1444	0·1464	0·1480	0·1466
79	0·1404	0·1394	0·1405	0·1356	0.1486	0·1583	0·1563	0·1589	0·1610	0·1570
80	0·1483	0·1544	0·1538	0·1493	0·1564	0·1754	0·1685	0·1739	0·1751	0·1705
81	0·1605	0·1693	0·1705	0·1667	0·1638	0·1952	0·1849	0·1906	0·1959	0·1822
82	0·1772	0·1903	0·1890	0·1867	0·1701	0·2125	0·2022	0·2130	0·2234	0·1943
83	0·1870	0·2185	0·2230	0·2131	0·1801	0·2145	0·2226	0·2422	0·2516	0·2090
84	0·1916	0·2458	0·2609	0·2375	0·2008	0·2335	0·2467	0·2707	0·2882	0·2276
85	0·2112	0·2753	0·3000	0·2568	0·2133	0·2356	0·2690	0·2990	0·3006	0·2579
86	0·2295	0·2791	0·3109	0·2574	0·2229	0·2556	0·2880	0·3088	0·3070	0·2837
87	0·2411	0·2796	0·2927	0·2673	0·2248	0·2728	0·2921	0·2979	0·3291	0·3069
88	0·2617	0·2537	0·2759	0·2563	0·2300	0·2838	0·3016	0·3030	0·3585	0·3429
89	0·2911	0·2200	0·2381	0·2364	0·2405	0·2830	0·3182	0·3696	0·4118	0·3913
90	0·3036	0·2308	0·2500	0·2381	0·2333	0·2895	0·3333	0·4483	0·4000	0·4286
91	0·3333	0·2333	0·2500	0·2500	0·2609	0·2963	0·3500	0·3125	0·3333	0·3125
92	0·3462	0·2609	0·2778	0·2500	0·2647	0·3158	0·3846	0·2727	0·2500	0·3636
93	0·3529	0·2941	0·3077	0·2778	0·3200	0·3846	0·3750	0·2500	0·1667	0·1429
94	0·3636	0·2500	0·3333	0·3077	0·3529	0·3750	0·4000	0·3333	0·2000	0·1667
95	0·2857	0·3333	0·3333	0·3333	0·3636	0·4000	0·6667	0·2500	0·5000	0·4000
96	0·4000	0·3333	0·5000	0·3333	0·4286	0·3333	1·0000	0·3333	0·5000	0·3333
97	0·3333	0·5000	0·5000	0·5000	0·5000	0·5000	—	0·5000	1·0000	0·5000
98	0·5000	0·5000	1·0000	0·5000	0·5000	1·0000	—	1·0000	—	1·0000
99	1·0000	1·0000	—	1·0000	1·0000	—	—	—	—	—

TABLE B.—*The proportion that* DIED *in each Year of* LIFE—*Contd.*
PART II.—*For* FEMALES *separately.*

Age.	Sweden and Finland.						Sweden alone.			
	1755 to 1757.	1758 to 1760.	1761 to 1763.	1755 to 1775.	1776 to 1795.	1801 to 1805.	1816 to 1840.	1841 to 1845.	1846 to 1850.	1851 to 1855.
0	0·2174	0·1840	0·2243	0·1939	0·1901	0·1750	0·1549	0·1409	0·1402	0·1375
1	0·0698	0·0475	0·0691	0·0630	0·0673	0·0528	0·0432	0·0341	0·0376	0·0388
2	0·0505	0·0374	0·0564	0·0459	0·0402	0·0319	0·0262	0·0217	0·0259	0·0274
3	0·0334	0·0271	0·0412	0·0322	0·0309	0·0235	0·0171	0·0148	0·0185	0·0203
4	0·0217	0·0173	0·0243	0·0228	0·0231	0·0173	0·0129	0·0119	0·0133	0·0160
5	0·0170	0·0150	0·0207	0·0175	0·0210	0·0148	0·0105	0·0090	0·0108	0·0127
6	0·0145	0·0128	0·0178	0·0152	0·0160	0·0116	0·0081	0·0077	0·0091	0·0099
7	0·0125	0·0111	0·0158	0·0133	0·0113	0·0094	0·0071	0·0067	0·0077	0·0084
8	0·0107	0·0095	0·0133	0·0118	0·0087	0·0076	0·0060	0·0058	0·0063	0·0072
9	0·0091	0·0078	0·0109	0·0100	0·0077	0·0066	0·0054	0·0051	0·0050	0·0060
10	0·0080	0·0068	0·0085	0·0080	0·0071	0·0058	0·0052	0·0046	0·0047	0·0050
11	0·0067	0·0060	0·0070	0·0070	0·0066	0·0051	0·0046	0·0039	0·0044	0·0046
12	0·0061	0·0057	0·0064	0·0064	0·0063	0·0046	0·0041	0·0038	0·0043	0·0045
13	0·0058	0·0056	0·0059	0·0063	0·0060	0·0045	0·0043	0·0040	0·0045	0·0046
14	0·0057	0·0055	0·0058	0·0061	0·0059	0·0047	0·0046	0·0043	0·0045	0·0048
15	0·0057	0·0058	0·0058	0·0063	0·0059	0·0052	0·0046	0·0044	0·0045	0·0048
16	0·0058	0·0061	0·0060	0·0065	0·0059	0·0052	0·0049	0·0047	0·0047	0·0048
17	0·0060	0·0063	0·0062	0·0068	0·0061	0·0055	0·0051	0·0049	0·0047	0·0049
18	0·0060	0·0065	0·0064	0·0070	0·0063	0·0056	0·0054	0·0050	0·0047	0·0049
19	0·0062	0·0069	0·0067	0·0070	0·0066	0·0060	0·0057	0·0052	0·0047	0·0051
20	0·0064	0·0069	0·0069	0·0072	0·0068	0·0061	0·0060	0·0053	0·0050	0·0052
21	0·0065	0·0071	0·0069	0·0073	0·0070	0·0063	0·0060	0·0054	0·0055	0·0055
22	0·0067	0·0073	0·0072	0·0075	0·0074	0·0065	0·0064	0·0057	0·0058	0·0057
23	0·0069	0·0076	0·0074	0·0077	0·0076	0·0067	0·0068	0·0058	0·0058	0·0059
24	0·0074	0·0079	0·0076	0·0081	0·0078	0·0067	0·0070	0·0060	0·0060	0·0061
25	0·0075	0·0085	0·0079	0·0084	0·0084	0·0071	0·0074	0·0061	0·0060	0·0064
26	0·0080	0·0089	0·0081	0·0088	0·0087	0·0073	0·0076	0·0064	0·0061	0·0066
27	0·0084	0·0095	0·0084	0·0092	0·0089	0·0075	0·0081	0·0064	0·0062	0·0069
28	0·0090	0·0101	0·0089	0·0099	0·0092	0·0076	0·0083	0·0066	0·0064	0·0073
29	0·0097	0·0107	0·0093	0·0101	0·0096	0·0080	0·0085	0·0069	0·0066	0·0076
30	0·0097	0·0110	0·0096	0·0106	0·0103	0·0082	0·0087	0·0071	0·0073	0·0078
31	0·0100	0·0113	0·0099	0·0109	0·0106	0·0084	0·0091	0·0075	0·0078	0·0082
32	0·0103	0·0116	0·0104	0·0110	0·0107	0·0088	0·0094	0·0077	0·0080	0·0086
33	0·0106	0·0119	0·0109	0·0113	0·0108	0·0093	0·0095	0·0080	0·0083	0·0088
34	0·0109	0·0122	0·0114	0·0117	0·0109	0·0095	0·0099	0·0080	0·0083	0·0093
35	0·0111	0·0125	0·0118	0·0120	0·0112	0·0096	0·0101	0·0086	0·0089	0·0097
36	0·0114	0·0127	0·0121	0·0123	0·0114	0·0101	0·0104	0·0092	0·0093	0·0100
37	0·0117	0·0132	0·0125	0·0127	0·0115	0·0102	0·0108	0·0096	0·0096	0·0104
38	0·0118	0·0136	0·0131	0·0129	0·0118	0·0106	0·0113	0·0098	0·0100	0·0108
39	0·0122	0·0140	0·0135	0·0132	0·0124	0·0109	0·0114	0·0102	0·0104	0·0111
40	0·0126	0·0143	0·0139	0·0136	0·0137	0·0114	0·0119	0·0105	0·0108	0·0116
41	0·0129	0·0150	0·0143	0·0140	0·0141	0·0125	0·0122	0·0109	0·0111	0·0119
42	0·0133	0·0156	0·0147	0·0144	0·0143	0·0130	0·0127	0·0112	0·0114	0·0124
43	0·0135	0·0160	0·0149	0·0148	0·0143	0·0132	0·0128	0·0116	0·0117	0·0125
44	0·0139	0·0167	0·0156	0·0155	0·0145	0·0134	0·0137	0·0118	0·0120	0·0128
45	0·0143	0·0172	0·0159	0·0160	0·0148	0·0136	0·0141	0·0119	0·0122	0·0130
46	0·0148	0·0177	0·0166	0·0164	0·0148	0·0137	0·0147	0·0122	0·0123	0·0132
47	0·0150	0·0182	0·0169	0·0172	0·0150	0·0139	0·0151	0·0126	0·0125	0·0135
48	0·0154	0·0188	0·0174	0·0182	0·0154	0·0139	0·0157	0·0129	0·0126	0·0137
49	0·0159	0·0194	0·0180	0·0190	0·0161	0·0155	0·0161	0·0134	0·0128	0·0143
50	0·0162	0·0202	0·0186	0·0198	0·0174	0·0175	0·0170	0·0145	0·0142	0·0154

TABLE B.—*The proportion that* DIED *in each Year of* LIFE—*Contd.*
PART II.—*For* FEMALES—*Contd.*

Age.	Sweden and Finland.						Sweden alone.			
	1755 to 1757.	1758 to 1760.	1761 to 1763.	1755 to 1775.	1776 to 1795.	1801 to 1805.	1816 to 1840.	1841 to 1845.	1846 to 1850.	1851 to 1855.
51	0·0167	0·0211	0·0192	0·0205	0·0181	0·0188	0·0179	0·0154	0·0161	0·0168
52	0·0172	0·0221	0·0199	0·0212	0·0187	0·0192	0·0188	0·0162	0·0182	0·0181
53	0·0183	0·0233	0·0205	0·0219	0·0196	0·0200	0·0200	0·0172	0·0193	0·0190
54	0·0194	0·0243	0·0215	0·0226	0·0202	0·0209	0·0212	0·0183	0·0205	0·0204
55	0·0208	0·0250	0·0223	0·0237	0·0212	0·0225	0·0225	0·0194	0·0211	0·0214
56	0·0224	0·0259	0·0231	0·0246	0·0230	0·0242	0·0239	0·0208	0·0222	0·0228
57	0·0237	0·0268	0·0242	0·0257	0·0243	0·0258	0·0259	0·0225	0·0233	0·0241
58	0·0251	0·0281	0·0258	0·0270	0·0258	0·0274	0·0273	0·0242	0·0245	0·0256
59	0·0275	0·0304	0·0277	0·0289	0·0273	0·0295	0·0290	0·0261	0·0256	0·0277
60	0·0310	0·0337	0·0307	0·0307	0·0310	0·0328	0·0315	0·0277	0·0274	0·0301
61	0·0341	0·0370	0·0347	0·0330	0·0345	0·0358	0·0341	0·0298	0·0295	0·0329
62	0·0359	0·0397	0·0380	0·0357	0·0376	0·0383	0·0371	0·0321	0·0323	0·0355
63	0·0379	0·0423	0·0406	0·0384	0·0411	0·0407	0·0402	0·0348	0·0366	0·0381
64	0·0401	0·0452	0·0431	0·0414	0·0442	0·0436	0·0433	0·0378	0·0410	0·0415
65	0·0425	0·0481	0·0458	0·0446	0·0480	0·0469	0·0467	0·0416	0·0463	0·0458
66	0·0448	0·0516	0·0489	0·0486	0·0519	0·0499	0·0506	0·0458	0·0507	0·0504
67	0·0476	0·0556	0·0522	0·0536	0·0572	0·0536	0·0542	0·0505	0·0552	0·0552
68	0·0508	0·0602	0·0565	0·0583	0·0623	0·0581	0·0594	0·0550	0·0597	0·0598
69	0·0557	0·0654	0·0618	0·0642	0·0678	0·0637	0·0650	0·0598	0·0641	0·0643
70	0·0622	0·0714	0·0674	0·0706	0·0727	0·0718	0·0707	0·0659	0·0692	0·0709
71	0·0698	0·0790	0·0734	0·0775	0·0800	0·0815	0·0773	0·0716	0·0751	0·0779
72	0·0771	0·0875	0·0810	0·0857	0·0881	0·0882	0·0838	0·0779	0·0820	0·0849
73	0·0841	0·0965	0·0894	0·0944	0·0941	0·0979	0·0915	0·0841	0·0889	0·0919
74	0·0912	0·1061	0·0989	0·1035	0·1012	0·1061	0·0991	0·0904	0·0961	0·0980
75	0·0976	0·1141	0·1073	0·1093	0·1065	0·1146	0·1057	0·0989	0·1042	0·1069
76	0·1036	0·1167	0·1123	0·1116	0·1132	0·1194	0·1134	0·1087	0·1127	0·1146
77	0·1105	0·1223	0·1175	0·1159	9·1200	0·1243	0·1210	0·1207	0·1215	0·1243
78	0·1176	0·1249	0·1230	0·1224	0·1254	0·1400	0·1280	0·1344	0·1321	0·1336
79	0·1247	0·1338	0·1300	0·1320	0·1309	0·1524	0·1367	0·1495	0·1459	0·1455
80	0·1339	0·1485	0·1450	0·1449	0·1363	0·1703	0·1490	0·1614	0·1614	0·1556
81	0·1489	0·1623	0·1626	0·1628	0·1528	0·1839	0·1614	0·1776	0·1775	0·1642
82	0·1667	0·1814	0·1860	0·1824	0·1725	0·1932	0·1778	0·1852	0·1945	0·1773
83	0·1920	0·2065	0·2157	0·2083	0·1872	0·2170	0·1964	0·2034	0·2113	0·1922
84	0·2178	0·2317	0·2460	0·2415	0·2012	0·2229	0·2173	0·2253	0·2344	0·2115
85	9·2247	0·2562	0·2489	0·2571	0·2080	0·2295	0·2397	0·2299	0·2531	0·2287
86	0·2245	0·2611	0·2514	0·2527	0·2093	0·2418	0·2656	0·2410	0·2678	0·2451
87	0·2316	0·2481	0·2519	0·2574	0·2105	0·2609	0·2712	0·2559	0·3029	0·2670
88	0·2397	0·2400	0·2551	0·2376	0·2117	0·2788	0·2791	0·2866	0·3443	0·3000
89	0·2523	0·2237	0·2603	0·2338	0·2202	0·2911	0·2903	0·3482	0·4000	0·3367
90	0·2651	0·2373	0·2407	0·2203	0·2235	0·3051	0·3030	0·3699	0·3750	0·4000
91	0·2787	0·2222	0·2439	0·2174	0·2424	0·3415	0·3043	0·2826	0·2667	0·2821
92	0·2955	0·2286	0·2581	0·2222	0·2600	0·4074	0·3438	0·2727	0·3182	0·2143
93	0·3226	0·2593	0·3043	0·2500	0·2703	0·4375	0·3810	0·2083	0·2000	0·1818
94	0·3333	0·2500	0·3125	0·2857	0·2963	0·4444	0·3846	0·2105	0·2500	0·2222
95	0·3571	0·2667	0·2727	0·3333	0·3684	0·4000	0·3750	0·2667	0·3333	0·2857
96	0·3333	0·2727	0·2500	0·3000	0·5000	0·3333	0·6000	0·1818	0·3333	0·3000
97	0·3333	0·2500	0·3333	0·2857	0·5000	0·5000	0·5000	0·2222	0·2500	0·2857
98	0·2500	0·3333	0·2500	0·4000	0·6667	1·0000	0·5000	0·2857	0·3333	0·2000
99	0·3333	0·2500	0·3333	0·3333	1·0000	—	—	0·2000	0·5000	0·2500
100	0·5000	0·3333	0·5000	0·5000	—	—	—	0·5117	1·0000	0·3333
101	1·0000	0·5000	1·0000	1·0000	—	—	—	0·5000	—	0·5000
102	—	1·0000	—	—	—	—	1·0000	—	1·0000	

TABLE C.—LIFE TABLE *for* SWEDEN, 1841-55.

PART I.—*Male Life.*

Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.	Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.
0	10,000	1,634	41·28	0·1634	50	4,768	106	18·02	0·0222
1	8,366	332	48·29	0·0397	51	4,662	111	17·42	0·0238
2	8,034	226	49·27	0·0281	52	4,551	113	16·83	0·0248
3	7,808	155	49·68	0·0199	53	4,438	116	16·25	0·0261
4	7,653	111	49·68	0·0145	54	4,322	119	15·67	0·0275
5	7,542	90	49·40	0·0119	55	4,203	120	15·10	0·0286
6	7,452	73	48·99	0·0098	56	4,083	123	14·53	0·0301
7	7,379	62	48·47	0·0084	57	3,960	125	13·97	0·0316
8	7,317	51	47·88	0·0070	58	3,835	127	13·41	0·0331
9	7,266	42	47·21	0·0058	59	3,708	130	12·85	0·0351
10	7,224	35	46·48	0·0048	60	3,578	132	12·31	0·0369
11	7,189	34	45·70	0·0047	61	3,446	135	11·75	0·0392
12	7,155	33	44·92	0·0046	62	3,311	137	11·21	0·0414
13	7,122	33	44·13	0·0046	63	3,174	140	10·67	0·0441
14	7,089	34	43·33	0·0048	64	3,034	146	10·14	0·0481
15	7,055	34	42·53	0·0048	65	2,888	155	9·63	0·0537
16	7,021	34	41·74	0·0048	66	2,733	163	9·14	0·0596
17	6,987	35	40·94	0·0050	67	2,570	164	8·69	0·0638
18	6,952	35	40·14	0·0050	68	2,406	165	8·25	0·0686
19	6,917	36	39·34	0·0052	69	2,241	163	7·82	0·0727
20	6,881	43	38·55	0·0062	70	2,078	163	7·40	0·0784
21	6,838	47	37·79	0·0069	71	1,915	161	6·98	0·0841
22	6,791	49	37·04	0·0072	72	1,754	160	6·58	0·0912
23	6,742	50	36·31	0·0074	73	1,594	159	6·19	0·0997
24	6,692	52	35·58	0·0078	74	1,435	157	5·82	0·1094
25	6,640	52	34·85	0·0078	75	1,278	152	5·47	0·1189
26	6,588	53	34·12	0·0080	76	1,126	143	5·14	0·1270
27	6,535	54	33·40	0·0083	77	983	134	4·82	0·1363
28	6,481	55	32·67	0·0085	78	849	125	4·50	0·1472
29	6,426	56	31·94	0·0087	79	724	115	4·19	0·1588
30	6,370	58	31·22	0·0091	80	609	106	3·88	0·1741
31	6,312	60	30·50	0·0095	81	503	95	3·60	0·1889
32	6,252	62	29·79	0·0099	82	408	86	3·32	0·2108
33	6,190	65	29·08	0·0105	83	322	75	3·07	0·2329
34	6,125	66	28·39	0·0108	84	247	65	2·85	0·2632
35	6,059	69	27·69	0·0114	85	182	52	2·69	0·2857
36	5,990	72	27·01	0·0120	86	130	39	2·57	0·3000
37	5,918	74	26·33	0·0125	87	91	28	2·46	0·3077
38	5,844	76	25·65	0·0130	88	63	21	2·33	0·3333
39	5,768	80	24·99	0·0139	89	42	17	2·24	0·4048
40	5,688	82	24·33	0·0144	90	25	10	2·42	0·4000
41	5,606	84	23·68	0·0150	91	15	5	2·70	0·3333
42	5,522	87	23·03	0·0158	92	10	3	2·80	0·3000
43	5,435	90	22·39	0·0166	93	7	1	2·79	0·1429
44	5,345	91	21·76	0·0170	94	6	2	2·17	0·3333
45	5,254	93	21·13	0·0177	95	4	1	2·00	0·2500
46	5,161	94	20·50	0·0182	96	3	1	1·50	0·3333
47	5,067	97	19·87	0·0191	97	2	1	1·00	0·5000
48	4,970	100	19·25	0·0201	98	1	1	0·50	1·0000
49	4,870	102	18·63	0·0209					

TABLE C.—LIFE TABLE *for* SWEDEN, 1841-55—*Contd.*

PART II.—*Female Life.*

Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.	Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.
0	10,000	1,395	45·60	0·1395	51	5,380	87	19·40	0·0162
1	8,605	317	51·95	0·0368	52	5,293	92	18·71	0·0174
2	8,288	207	52·92	0·0250	53	5,201	97	18·03	0·0187
3	8,081	115	53·26	0·0179	54	5,104	100	17·36	0·0196
4	7,936	109	53·22	0·0137	55	5,004	103	16·70	0·0206
5	7,827	85	52·96	0·0109	56	4,901	108	16·04	0·0220
6	7,742	68	52·53	0·0088	57	4,793	112	15·39	0·0234
7	7,674	59	51·99	0·0077	58	4,681	116	14·75	0·0248
8	7,615	49	51·39	0·0064	59	4,565	120	14·11	0·0263
9	7,566	40	50·72	0·0053	60	4,445	127	13·48	0·0286
10	7,526	36	49·99	0·0048	61	4,318	132	12·86	0·0306
11	7,490	32	49·23	0·0043	62	4,186	140	12·25	0·0334
12	7,458	32	48·44	0·0043	63	4,046	147	11·66	0·0363
13	7,426	33	47·64	0·0044	64	3,899	157	11·08	0·0403
14	7,393	33	46·85	0·0045	65	3,742	167	10·52	0·0446
15	7,360	33	46·06	0·0045	66	3,575	175	9·99	0·0490
16	7,327	35	45·27	0·0048	67	3,400	182	9·48	0·0535
17	7,292	35	44·48	0·0048	68	3,218	187	8·98	0·0581
18	7,257	36	43·69	0·0050	69	3,031	190	8·51	0·0627
19	7,221	36	42·91	0·0050	70	2,841	195	8·04	0·0686
20	7,185	37	42·12	0·0051	71	2,646	198	7·60	0·0748
21	7,148	39	41·34	0·0055	72	2,448	200	7·17	0·0817
22	7,109	41	40·56	0·0058	73	2,248	199	6·77	0·0885
23	7,068	41	39·79	0·0058	74	2,049	194	6·38	0·0947
24	7,027	42	39·02	0·0060	75	1,855	192	5·99	0·1035
25	6,985	43	38·25	0·0062	76	1,663	186	5·63	0·1118
26	6,942	45	37·49	0·0065	77	1,477	180	5·27	0·1219
27	6,897	45	36·73	0·0065	78	1,297	173	4·93	0·1334
28	6,852	46	35·97	0·0067	79	1,124	165	4·61	0·1468
29	6,806	48	35·21	0·0071	80	959	153	4·32	0·1595
30	6,758	50	34·45	0·0074	81	806	140	4·05	0·1737
31	6,708	52	33·71	0·0078	82	666	123	3·79	0·1847
32	6,656	54	32·97	0·0081	83	543	110	3·54	0·2026
33	6,602	55	32·23	0·0083	84	433	97	3·31	0·2240
34	6,547	58	31·50	0·0089	85	336	80	3·13	0·2381
35	6,489	59	30·78	0·0091	86	256	64	2·95	0·2500
36	6,430	61	30·05	0·0095	87	192	53	2·76	0·2760
37	6,369	63	29·34	0·0099	88	139	43	2·62	0·3094
38	6,306	64	28·62	0·0101	89	96	35	2·57	0·3646
39	6,242	66	27·91	0·0106	90	61	23	2·76	0·3770
40	6,176	68	27·21	0·0110	91	38	11	3·13	0·2895
41	6,108	69	26·50	0·0113	92	27	7	3·20	0·2593
42	6,039	70	25·80	0·0116	93	20	4	3·15	0·2000
43	5,969	71	25·10	0·0119	94	16	4	2·81	0·2500
44	5,898	72	24·39	0·0122	95	12	3	2·58	0·2500
45	5,826	72	23·69	0·0124	96	9	3	2·28	0·3333
46	5,754	73	22·98	0·0127	97	6	2	2·17	0·3333
47	5,681	73	22·27	0·0128	98	4	1	2·00	0·2500
48	5,608	73	21·55	0·0130	99	3	1	1·50	0·3333
49	5,535	75	20·83	0·0136	100	2	1	1·00	0·5000
50	5,460	80	20·11	0·0147	101	1	1	·50	1·0000

TABLE C.—LIFE TABLE *for* SWEDEN, 1841-55—*Contd.*

PART III.—*Both Sexes combined.*

Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.	Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.
0	10,000	1,518	43·43	0·1518	51	5,018	98	18·50	0·0195
1	8,482	327	50·15	0·0386	52	4,920	103	17·86	0·0209
2	8,155	214	51·15	0·0262	53	4,817	106	17·23	0·0220
3	7,941	148	51·51	0·0186	54	4,711	110	16·61	0·0233
4	7,793	111	51·48	0·0142	55	4,601	111	15·99	0·0241
5	7,682	87	51·22	0·0113	56	4,490	115	15·38	0·0256
6	7,595	72	50·80	0·0095	57	4,375	118	14·77	0·0270
7	7,523	60	50·28	0·0080	58	4,257	121	14·16	0·0284
8	7,463	50	49·68	0·0067	59	4,136	126	13·56	0·0305
9	7,413	42	49·01	0·0057	60	4,010	128	12·97	0·0319
10	7,371	36	48·29	0·0049	61	3,882	134	12·38	0·0345
11	7,335	33	47·52	0·0045	62	3,748	138	11·81	0·0368
12	7,302	32	46·73	0·0044	63	3,610	144	11·24	0·0399
13	7,270	32	45·94	0·0044	64	3,466	151	10·69	0·0436
14	7,238	33	45·14	0·0046	65	3,315	159	10·15	0·0480
15	7,205	34	44·34	0·0047	66	3,156	169	9·64	0·0535
16	7,171	34	43·55	0·0047	67	2,987	173	9·15	0·0579
17	7,137	35	42·76	0·0049	68	2,814	176	8·69	0·0625
18	7,102	35	41·96	0·0049	69	2,638	177	8·23	0·0671
19	7,067	37	41·17	0·0052	70	2,461	178	7·79	0·0723
20	7,030	39	40·38	0·0055	71	2,283	181	7·36	0·0793
21	6,991	43	39·61	0·0062	72	2,102	179	6·95	0·0852
22	6,948	45	38·85	0·0065	73	1,923	179	6·55	0·0931
23	6,903	46	38·10	0·0067	74	1,744	174	6·17	0·0998
24	6,857	47	37·35	0·0069	75	1,570	171	5·79	0·1089
25	6,809	48	36·60	0·0070	76	1,399	164	5·44	0·1172
26	6,762	49	35·86	0·0072	77	1,235	156	5·10	0·1263
27	6,713	49	35·12	0·0073	78	1,079	150	4·76	0·1390
28	6,664	51	34·37	0·0077	79	929	143	4·45	0·1539
29	6,613	52	33·63	0·0079	80	786	127	4·17	0·1616
30	6,561	54	32·90	0·0082	81	659	116	3·88	0·1760
31	6,507	57	32·17	0·0088	82	543	104	3·60	0·1915
32	6,450	58	31·45	0·0090	83	439	94	3·33	0·2141
33	6,392	59	30·73	0·0092	84	345	84	3·11	0·2435
34	6,333	62	30·01	0·0098	85	261	69	2·94	0·2644
35	6,271	64	29·30	0·0102	86	192	52	2·82	0·2708
36	6,207	67	28·60	0·0108	87	140	40	2·69	0·2857
37	6,140	68	27·70	0·0111	88	100	32	2·56	0·3200
38	6,072	70	27·21	0·0115	89	68	24	2·53	0·3529
39	6,002	73	26·52	0·0122	90	44	18	2·64	0·4091
40	5,929	75	25·84	0·0126	91	26	7	3·12	0·2692
41	5,854	77	25·17	0·0132	92	19	5	3·08	0·2632
42	5,777	78	24·50	0·0135	93	14	3	3·00	0·2143
43	5,699	80	23·82	0·0140	94	11	3	2·68	0·2727
44	5,619	82	23·16	0·0146	95	8	2	2·50	0·2500
45	5,537	83	22·49	0·0150	96	6	2	2·17	0·3333
46	5,454	84	21·83	0·0154	97	4	1	2·00	0·2500
47	5,370	84	21·16	0·0156	98	3	1	1·50	0·3333
48	5,286	86	20·49	0·0163	99	2	1	1·00	0·5000
49	5,200	89	19·82	0·0171	100	1	1	0·50	1·0000
50	5,111	93	19·16	0·0182					

TABLE D.—SWEDEN (1751-1855).—INCREASE *of the* POPULATION,—*Quinquennial and Annual Ratios.*

Years.	Total Increase of the Population in each Five Years.	Per Cent. For each Quinquennium.	Per Cent. For each Year.	Years.	Total Increase of the Population in each Five Years.	Per Cent. For each Quinquennium.	Per Cent. For each Year.
1751–55	90,351	5·12	1·004	1810–15	87,215	3·66	0·723
'56–60	39,559	2·13	0·422	'16–20	119,624	4·85	0·952
'61–65	71,576	3·78	0·745	'21–25	186,562	7·21	1·392
'66–70	65,750	3·34	0·660	'26–30	116,830	4·21	0·829
'76–80	97,434	4·82	0·956	'31–35	137,357	4·75	0·934
1781–85	31,492	1·48	0·305	1836–40	113,448	3·75	0·739
'86–90	8,459	0·39	0·079	'41–45	177,649	5·65	1·107
'91–95	122,905	5·69	1·024	'46–50	166,005	5·00	0·982
'96–1800	66,166	2·90	0·657	'51–55	156,791	4·50	0·888
1801–05	80,105	3·41	0·674	Total 1816–55	1,174,266	47·63	0·978

GREAT BRITAIN AND IRELAND.

	Years.	Actual Increase of Population.	Increase.	Per Annum.
			Per cnt.	Per cnt.
Great Britain and Ireland	1801–61	13,239,534	82·3	1·371
" "	'01–31	8,297,231	52·0	1·733
" "	'31–61	4,942,303	20·0	0·667
England and Wales	'51–61	2,134,116	12·0	1·200
Scotland	'51–61	172,509	6·0	0·600
Ireland	'51–61	−787,842	−12 0	−1·202

TABLE D.—INCREASE of the POPULATION in various Countries (1769-1855)—Contd.

Countries.	Year and Date of Census.	Population.	Increase per Cent.	
			For the whole Period between each Census.	Average per Annum.
Norway	1769	748,000	—	—
	1801	883,038	18·05	0·57
	'15	885,431	0·27	0·02
	'25	1,051,318	18·74	1·77
	'35	1,194,827	13·65	1·36
	'45	1,328,471	11·19	1·11
	'55	1,490,047	12·17	1·21
Denmark (without the Duchies)	1801	925,680	—	—
	'34	1,223,797	32·21	0·94
	'40	1,283,027	4·83	0·80
	'45	1,350,327	5·24	1·05
	'50	1,407,747	4·25	0·85
	'55	1,499,850	6·54	1·31
Hanover	1848	1,758,847	—	—
	'52	1,819,253	3·43	0·77
	'55	1,819,777	0·03	0·009
Prussia (without Neufchatel)	1816	10,349,031	—	—
	'19	10,981,934	6·12	2·03
	'22	11,664,133	6·21	2·07
	'25	12,256,725	5·08	1·69
	'28	12,726,110	3·83	1·27
	'31	13,038,960	2·46	0·81
	'34	13,509,927	3·61	1·20
	'37	14,098,125	4·35	1·44
	'40	14,928,501	5·89	1·96
	'43	15,471,084	3·63	1·21
	'46	16,112,938	4·15	1·38
	'49	16,331,187	1·35	0·45
	'52	16,935,420	3·70	1·23
Kingdom of Saxony	1832	1,558,153	—	—
	'34	1,595,668	2·41	0·99
	'37	1,652,114	3·54	1·17
	'40	1,706,276	3·28	1·09
	'43	1,757,800	3·02	1·00
	'46	1,836,433	4·47	1·49
	'49	1,894,431	3·16	1·05
Bavaria	1818	3,707,966	—	—
	'27	4,044,569	9·08	1·00
	'30	4,133,760	2·20	0·73
	'34	4,246,778	2·73	0·68
	'37	4,315,469	1·62	0·54
	'40	4,370,977	1·28	0·42
	'43	4,440,327	1·58	0·52
	'46	4,504,874	1·45	0·48
	'49	4,520,751	0·35	0·12
	'52	4,559,452	0·85	0·28

TABLE D.—INCREASE of the POPULATION in various Countries (1769-1855)—Contd.

Countries.	Year and Date of Census.	Population.	Increase per Cent.	
			For the whole Period between each Census.	Average per Annum.
Holland	1840	2,860,450	—	—
	'49	3,056,879	6·86	0·75
Belgium	1831	3,785,814	—	—
	'46	4,337,196	14·56	0·98
France (without Algeria)	1800	27,349,003	—	—
	'06	29,107,425	+6·43	+1·28
	'11	29,092,734	−0·05	−0·01
	'21	30,461,875	+4·71	+0·47
	'26	31,858,937	4·59	0·92
	'31	32,569,223	2·23	0·44
	'36	33,540,910	2·98	0·59
	'41	34,230,178	2·06	0·41
	'46	35,400,486	3·42	0·68
	'51	35,783,170	1·08	0·21
	'56	36,039,364	0·71	0·14
England and Wales	1801	9,156,171	—	—
	'11	10,454,529	14·18	1·39
	'21	12,172,664	16·43	1·64
	'31	14,051,986	15·44	1·54
	'41	16,035,198	14·11	1·31
	'51	18,054,170	12·59	1·37
	'61	20,223,746	12·00	1·20
Scotland	1801	1,678,452	—	—
	'11	1,884,044	12·22	1·19
	'21	2,137,325	13·44	1·34
	'31	2,405,610	12·55	1·25
	'41	2,652,339	10·25	1·02
	'51	2,922,362	10·18	1·10
	'61	3,061,251	6·00	0·60
Ireland	1821	6,801,827	—	—
	'31	7,767,401	14·20	1·42
	'41	8,175,124	5·25	0·52
	'51	6,552,386	−19·85	−1·98
	'61	5,764,543	−12·02	−1·20
United States of North America	1790	3,929,827	—	—
	1800	5,305,925	35·09	3·51
	'10	7,239,814	36·45	3·64
	'20	9,638,131	33·13	3·31
	'30	12,866,020	33·49	3·35
	'40	17,069,453	32·67	3·26
	'50	23,191,876	35·87	3·58

TABLE E.—SWEDEN (1805-55).—*Proportion of* INHABITANTS *of the* COUNTRY *to Inhabitants of Towns.*

Years.	To 1,000 Inhabitants of the Country, there were the following Numbers in Towns.									
	Sweden.	Norway.	Denmark.	Prussia.	Saxony.	Würtemberg.	Holland.	Belgium.	England and Wales.	Scotland.
1787....	—	—	258	—	—	—	—	—	—	—
1801....	—	—	260	—	—	—	—	—	—	—
'05....	106	—	—	—	—	—	—	—	—	—
'10....	106	—	—	—	—	—	—	—	—	—
'15....	112	—	—	—	—	—	—	—	—	—
1820....	112	—	—	—	—	—	—	—	—	—
'25....	112	123	—	—	—	—	—	—	—	—
'29....	—	—	—	—	—	—	—	323	—	—
'30....	108	—	—	—	—	—	—	—	—	—
'31....	—	—	—	374	—	—	—	—	—	—
1832....	—	—	—	—	490	—	—	—	—	—
'34....	—	—	259	376	486	—	—	—	—	—
'35....	106	121	—	—	—	—	—	—	—	—
'37....	—	—	—	—	498	—	—	—	—	—
'39....	—	—	—	—	—	—	577	—	—	—
1840....	106	—	254	—	508	—	—	—	—	—
'43....	—	—	—	382	524	—	—	—	—	—
'45....	108	138	258	—	—	—	—	—	—	—
'46....	—	—	—	—	528	322	—	337	—	—
'49....	—	—	—	390	538	—	563	—	—	—
1850....	112	—	260	—	—	—	—	—	1,066	1,075
'51....	—	—	—	—	—	—	—	—	—	—
'52....	—	—	—	397	—	323	—	—	—	—
'55....	116	153	280	—	331	—	—	—	—	—

TABLE F.—SWEDEN (1751-1855).—PROPORTION *of the* SEXES *in the* POPULATION.

Years.	Number of Women to every 1,000 Men.	Years.	Number of Women to every 1,000 Men.	Years.	Number of Women to every 1,000 Men.	Years.	Number of Women to every 1,000 Men.
1751	1,124	1772....	1,096	1800	1,084	1830	1,076
'54	1,117	'75....	1,089	'05	1,066	'35	1,070
'57	1,115	'80....	1,081	'10	1,097	'40	1,070
'60	1,120	'85....	1,072	'15	1,094	'45	1,068
'63	1,107	'90....	1,090	'20	1,085	'50	1,064
'66	1,099	'95....	1,086	'25	1,079	'55	1,063
'69	1,097						

TABLE F.—*Comparison with other Countries—Contd.*

Countries.	Years.	Number of Women to every 1,000 Men.	Countries.	Years.	Number of Women to every 1,000 Men.
Norway	1769	1,100	Baden	1821–25	1,050
	1801	1,090		'26–30	1,048
	'25	1,060		'33	1,047
	'35	1,041		'36–39	1,049
	'45	1,037		'42–45	1,046
	'55	1,011		'46	1,045
				'49	1,052
Denmark .... (excluding the Duchies)	1787	1,018		'52	1,054
	1801	1,018		'55	1,063
	'34	1,022			
	'40	1,026			
	'45	1,023	Netherlands	1840	1,042
	'50	1,021		'49	1,039
	'55	1,021			
Hanover................	1848	1,009	Belgium................	1829	1,033
	'52	1,004		'46	1,005
	'55	1,006			
Prussia	1816	1,016	France	1801	1,054
	'37	1,003		'06	1,034
	'40	1,004		'21	1,059
	'43	1,004		'31	1,042
	'46	1,002		'36	1,037
	'49	1,001		'41	1,025
	'52	1,004		'46	1,018
				'51	1,011
Kingdom of Saxony	1816	1,089			
	'20	1,081			
	'30	1,067	England and Wales	1801	1,026
	'32	1,059		'11	1,025
	'34	1,058		'21	1,021
	'37	1,055		'31	1,029
	'40	1,057		'41	1,030
	'43	1,054		'51	1,027
	'46	1,049			
	'49	1,052	Scotland	1801	1,074
Bavaria	1834	1,051		'11	1,083
	'37	1,048		'21	1,078
	'40	1,050		'31	1,081
	'43	1,049		'41	1,082
	'46	1,045		'51	1,074
	'49	1,050			
	'52	1,040			
Wurtemberg	1832	1,054	Ireland	1821	1,035
	'34	1,071		'31	1,046
	'37	1,066		'41	1,034
	'40	1,063		'51	1,054
	'43	1,054			
	'46	1,056	United States of North America	1820	968
	'49	1,056		'30	970
	'52	1,067		'40	964
	'55	1,011		'50	959

TABLE G.—SWEDEN (1751-1855).—PROPORTION *of* MARRIAGES *to* POPULATION *compared with similar Results in other Countries.*

Countries.	Years.	Number of Inhabitants to One Marriage.	Countries.	Years.	Number of Inhabitants to One Marriage.
Sweden	1751-60	110	Bavaria	1830-32	152
	'61-70	116		'33-35	149
	'71-80	118		'36-38	156
	'81-90	126		'39-41	150
	'91-1800	117		'42-44	141
	1801-10	122		'45-47	154
	'11-20	115		'48-51	150
	'21-30	120			
	'31-40	140	Baden	1827-30	141
	'41-50	134		'31-35	129
	'51-55	136		'36-40	125
				'41-45	131
Norway	1796-1805	129		'46-50	147
	1816-25	113		'51	163
	'26-35	132		'52	196
	'36-45	137		'53	200
	'46-55	129		'54	208
				'55	182
Denmark	1801-33	119			
	'34-39	131	Netherlands	1815-28	124
	'40-44	129		'40	129
	'45-49	125		'41	133
				'42	139
Saxony	1831-35	123		'43	139
	'36-40	121		'44	134
	'41	117		'45	132
	'42	113		'46	148
	'43	123		'47	159
	'44	119		'48	139
	'45	115		'49	122
	'46	113		'50	112
	'47	130		'51	117
	'48	125		'52	124
	'49	118		'53	131
	'50	104			
			Belgium	1841	139
Prussia	1748-90	101		'42	144
	1816	88		'43	149
	'19	99		'44	145
	'22	110		'45	147
	'25	109		'46	169
	'28	121		'47	180
	'31	132		'48	152
	'34	104		'49	138
	'37	110		'50	131
	'40	113			
	'43	110	France	1801-05	137
	'46	116		'06-10	127
	'49	110		'11-15	117
	'52	118		'16-20	138

TABLE J.—SWEDEN (1751-1855).—PROPORTION *of* MARRIAGES, &c.—*Contd.*

Countries.	Years.	Number of Inhabitants to One Marriage.	Countries.	Years.	Number of Inhabitants to One Marriage.
France—*contd.*	1821-25	130	England—*contd.*	1796-1805	115
	'26-30	126		1806-15	122
	'31-35	127		'16-25	123
	'36-40	124		'26-35	124
	'41-45	123		'39	126
	'46-50	128		'40	128
				'41	130
Portugal	1838-41	144		'44	129
				'36-45	128
England	1761	103		'49	119
	'71	106			
	'81	109			
	'91	112	Scotland	1855	118

TABLE H.—MARRIAGES *arranged according to Civil Position in Sweden and in other Countries,* 1810-55.

Years.	Out of every 100 Marriages, there occurred the following Number between					Total Males.		Total Females.	
	Single Men and Women.	Widowers and Single Women.	Single Men and Widows.	Widowers and Widows.	Total.	Single Men Married.	Widowers Married.	Single Women Married.	Widows Married.
1855	84·1	9·2	4·6	2·1	100	88·7	11·3	93·3	6·7
'54	84·0	9·3	4·6	2·1	100	88·6	11·4	93·3	6·7
'53	84·7	8·6	4·8	1·9	100	89·5	10·5	93·3	6·7
'52	85·0	8·6	4·4	2·0	100	89·4	10·6	93·6	6·4
'51	85·8	7·8	4·4	2·0	100	90·2	9·8	93·6	6·4
1851-55	84·7	8·7	4·6	2·0	100	89·3	10·7	93·4	6·6
'46-50	84·7	8·3	4·9	2·1	100	89·6	10·4	93·0	7·0
'41-45	82·0	9·6	5·6	2·8	100	87·6	12·4	91·6	8·4
'36-40	79·4	10·7	6·5	3·4	100	85·9	14·1	90·1	9·9
'31-35	77·6	11·6	7·0	3·8	100	84·6	15·4	89·2	10·8
1826-30	78·7	11·1	6·8	3·4	100	85·5	14·5	89·8	10·2
'21-25	78·9	11·1	6·8	3·2	100	85·7	14·3	90·0	10·0
'16-20	77·0	11·8	7·6	3·6	100	84·6	15·4	88·8	11·2
'11-15	71·9	13·4	9·7	5·0	100	81·6	18·4	85·3	14·7
'06-10	73·9	13·1	8·9	4·1	100	82·8	17·2	87·0	13·0
Average	78·88	10·94	6·84	3·34	100	85·72	14·28	89·82	10·18
Of which, in rural districts :									
1851-55	84·7	8·7	4·5	2·1	100	89·2	10·8	93·4	6·6
'46-50	84·5	8·4	4·9	2·2	100	89·4	10·6	92·9	7·1
In towns :									
1851-55	84·6	8·5	5·1	1·8	100	89·7	10·3	93·1	6·9
'46-50	86·3	7·0	5·4	1·3	100	91·7	8·3	93·3	6·7

TABLE H.—MARRIAGES *arranged according to Civil Position in Sweden, &c.—Contd.*

Countries.	Years.	Out of every 100 Marriages, there occurred the following Number between					Total Males.		Total Females	
		Single Men and Women.	Widowers and Single Women.	Single Men and Widows.	Widowers and Widows.	Total.	Single Men Married.	Widowers Married.	Single Women Married	Widws Marrd
Norway	1839–45	79·4	10·6	6·7	3·3	100	86·1	13·9	90·0	10·4
	'46–55	83·36	8·99	5·14	2·51	100	88·5	11·5	92·35	7·65
Denmark	1836–44	74·2	9·7	13·5	2·6	100	87·7	12·3	83·9	16·1
	'45–49	76·5	12·7	8·6	2·2	100	85·1	14·9	89·2	10·8
Saxony............	1834–49	83·6		16·4		100	—	—	—	—
Bavaria	1845–51	77·0	14·3	6·8	1·9	100	83·8	16·2	91·3	8·7
Austria............	1830–47	74·5	18·7		6·8	100	—	—	—	—
Belgium	1841–50	80·9	11·4	5·0	2·7	100	85·9	14·1	92·3	7·7
France	1836–53	83·5	9·4	3·7	3·4	100	87·2	12·8	92·9	7·1
England	1845–51	82·3	8·9	4·2	4·6	100	86·5	13·5	91·2	8·8

TABLE I.—SWEDEN (1821-55).—PROPORTION *of* FIRST *to other* MARRIAGES *of the* HUSBAND.

Years.	Out of 1,000 Marriages of the Husband:						
	First Marriages.	*Second* Marriages.	*Third* Marriages.	*Fourth* Marriages.	*Fifth* Marriages.	*Sixth* Marriages.	Total.
1851–55	892·14	103·29	4·18	0·38	0·01	—	1,000
'46–50	895·85	99·22	4·65	0·26	0·02	—	1,000
'41–45	874·09	119·69	5·79	0·39	0·04	—	1,000
'36–40	856·78	134·72	7·71	0·69	0·10	—	1,000
'31–35	842·21	148·67	8·59	0·48	0·05	—	1,000
'26–30	856·14	136·54	6·839	0·445	0·027	0·009	1,000
'21–25	857·401	135·621	6·523	0·405	0·042	0·008	1,000
Average ...	867·802	125·393	6·326	0·436	0·041	0·002	1,000

TABLE K.—SWEDEN (1831-55).—AGES *at* MARRIAGE, *proportions for each Sex.*

Years.	Ages of the Couples in every 100 Marriages celebrated.								
	Men, *Aged:*				Total.	Women, *Aged:*			
	Under 25.	26 to 35.	36 to 50.	Above 50.		Under 25.	26 to 35.	36 to 50.	Above 50.
1851–55	28·38	55·90	12·92	2·80	100	40·22	47·90	10·70	1·18
'46–50	33·30	52·70	11·30	2·70	100	43·80	45·00	9·60	1·60
'41–45	35·30	49·30	12·10	3·30	100	46·50	41·50	10·50	1·50
'36–40	36·40	46·40	13·60	3·60	100	47·90	38·70	11·90	1·50
'31–35	35·90	45·80	14·10	4·20	100	46·30	38·70	13·10	1·90
Average, 1831–55	33·856	50·02	12·804	3·32	100	44·944	42·36	11·16	1·536
Of which, in rural districts:									
1851–55	30·2	55·0	12·2	2·6	100	41·6	46·9	9·7	1·8
'41–45	36·2	48·4	11·9	3·5	100	47·9	40·6	9·9	1·6
'31–35	37·0	44·9	13·8	4·3	100	47·7	37·8	12·5	2·0
In towns:									
1851–55	19·84	61·4	16·46	2·3	100	27·96	54·7	16·4	0·94
'41–45	26·2	57·0	14·6	2·2	100	32·6	50·1	16·0	1·3
'31–35	25·3	54·4	17·2	3·1	100	32·2	47·8	18·6	1·4
Norway, 1841–45	25·80	54·26	15·14	4·80	100	42·36	42·52	12·80	2·32
Denmark, 1845–49	19·8	57·7	18·8	3·7	100	36·6	48·1	13·8	1·5

TABLE L.—SWEDEN (1751-1855).—PROPORTION *of* BIRTHS (*Children Born Alive and Still-born, separately and together*) *to the* WHOLE POPULATION, *to the whole* FEMALE POPULATION, *to the Female Population between the Ages of* 15 *and* 55, *and to the Number of Marriages Contracted.—Averages for each Quinquennium.*

ONE *Living Child Born to the undermentioned Number of the Population.*

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1751–55	26·67	1791–95	29·27	1831–35	31·00
'56–60	28·80	'96–1800	30·51	'36–40	32·68
'61–65	28·56	1801–05	31·98	'41–45	32·00
'66–70	29·40	'06–10	32·68	'46–50	32·43
'71–75	32·02	'11–15	30·34	'51–55	31·45
'76–80	28·90	'16–20	29·61	⎧ 1751–75....	29·09 ⎫
'81–85	31·41	'21–25	27·98	Average ⎨ '76–1815	30·73 ⎬ 30·39
'86–90	30·76	'26–30	29·80	⎩ 1816–55....	30·87 ⎭

TABLE L.—SWEDEN (1751-1855).—PROPORTION of BIRTHS, &c.—Contd.

ONE *Living Child Born to the following Number of the* FEMALE *Population.*

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1751–55	14·09	1791–95	15·25	1831–35	16·05
'56–60	15·20	'96–1800	15·79	'36–40	16·89
'61–65	15·02	1801–05	16·59	'41–45	16·53
'66–70	15·21	'06–10	17·00	'46–50	16·73
'71–75	16·53	'11–15	15·86	'51–55	16·21
'76–80	14·34	'16–20	15·44	Average { 1751–75 .... 15·21	
'81–85	16·28	'21–25	14·54	'76–1815 15·89 } 15·76	
'86–90	15·98	'26–30	15·45	1816–55.. 15·98	

ONE *Child (Living or Still-born) Born to the following Number of the Population.*

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1776–80	28·08	1806–10	31·88	1836–40	31·69
'81–85	30·53	'11–15	29·59	'41–45	31·01
'86–90	29·94	'16–20	28·89	'46–50	30·41
'91–95	28·42	'21–25	27·26	'51–55	30·45
'96–1800	29·51	'26–30	29·01	Average { 1776–1815 29·89	
1801–05	31·19	'31–35	30·09	1816–55.. 29·85 } 29·87	

ONE *Child (Living or Still-born) Born to the following Number of the* FEMALE *Population.*

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1776–80	13·94	1806–10	16·59	1836–40	16·38
'81–85	15·83	'11–15	15·47	'41–45	16·02
'86–90	15·55	'16–20	15·06	'46–50	16·21
'91–95	14·81	'21–25	14·17	'51–55	15·69
'96–1800	15·35	'26–30	15·05	Average { 1776–1815 15·45	
1801–05	16·18	'31–35	15·58	1816–55.. 15·52 } 15·49	

ONE *Child (Living or Still-born) Born to the following Number of* WOMEN *between the Ages of 15 and 55.*

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1806–10	9·20	1826–30	8·00	1846–50	8·92
'11–15	8·64	'31–35 ...	8·28	'51–55	8·62
'16–20	8·36	'36–40	8·83	Average { 1806–15.. 8·97	
'21–25	7·67	'41–45 ...	8·78	'16–55... 8·43 } 8·53	

TABLE L.—SWEDEN (1751-1855).—PROPORTION of BIRTHS, &c.—Contd.

To ONE *Marriage Contracted, the following were the Numbers of Children Born Alive.*

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1751–55	4·05	1791–95	3·77	1831–35	4·32
'56–60	3·92	'96–1800	4·08	'36–40	4·51
'61–65	3·94	1801–05	3·95	'41–45	4·32
'66–70	4·09	'06–10	3·57	'46–50	4·06
'71–75	3·87	'11–15	3·71	'51–55	4·34
'76–80	3·91	'16–20	3·95	Average { 1751–75.... 3·98	
'81–85	4·09	'21–25	4·02	'76–1815 3·77 } 3·99	
'86–90	4·02	'26–30	4·31	1816–55.. 4·23	

Supplement to TABLE L.—PROPORTION *of* BIRTHS *to the* POPULATION *in some other Countries.*

ONE *Child Born to the undermentioned Number of Inhabitants.*

Countries.	Years.	Numbers.	Countries.	Years.	Numbers.
Norway	1826–35	30·1	Baden................	1831–35	26·42
	'36–45	32·8		'36–40	24·95
	'46–55	30·4		'41–45	24·75
Denmark	1835–44	31·65		'46–50	25·92
	'45–49	31·21		'51–55	30·30
Hanover............	1824–33	30·25	Austria	1830–35	25·33
	'34–43	30·02		'36–41	24·78
	'53	30·7		'42–47	25·00
Prussia	1748–90	24·62			
	1816–46	24·64	Netherlands	1841–45	27·52
	'49	23·62		'46–50	30·16
	'50	24·12		'51–53	28·05
	'51	24·51			
	'52	25·13	Belgium............	1841–50	33·15
Saxony	1836–40	25·10			
	'41–45	24·43	France	1817–24	31·8
	'46–50	24·36		'24–45	34·33
Bavaria	1833–35	35·66		'46–50	36·09
	'36–38	35·87		'51–54	36·22
	'39–41	35·41			
	'42–44	35·07	Ireland	1832–41	30·3

ONE *Living Child Born to the undermentioned Number of Inhabitants.*

Countries.	Years.	Numbers.	Countries.	Years.	Numbers.
Norway	1796–1805	33·5	France	1836–40	35·31
	1826–35	31·1		'41–45	35·66
	'36–45	34·1		'46–50	37·48
	'46–55	31·6		'51–54	38·22
			England............	1838–40	31·6
				'41–45	31·0
Hanover............	1853	32·0		'46–50	30·6

TABLE M.—SWEDEN (1749-1855).—PROPORTION *of* MALE *to* FEMALE BIRTHS.

Country.	Years.	Males Born Alive to 1,000 Females.	Country.	Years.	Males Born Alive to 1,000 Females.
Sweden	1851–55	1·050	Sweden—*contd.*	1791–1800	1·049
	'41–50	1·045		'81–90	1·045
	'31–40	1·047		'71–80	1·041
	'21–30	1·044		'61–70	1·046
	'11–20	1·045		'51–60	1·043
	'01–10	1·045		1749 and '50	1·030

Countries.	Years.	Males Born Alive to 1,000 Females.	Males Born (including Still-born), to 1,000 Females.
Norway	1801–35	1,049	—
	'36–45	1,053	1,061
	'46–55	1,047	1,057
Denmark	1835–49	1,041	1,055
Hanover	1824–43	1,054	1,065
Prussia	1816–52	—	1,057
Saxony	1834–49	—	1,065
Austria	1830–47	1,062	1,066
Bavaria	1835–51	—	1,063
Baden	1835–55	—	1,059
Holland	1840–53	—	1,065
Belgium	1841–50	1,052	—
France	1817–54	—	1,062
England	1843–52	1,047	—
Scotland	1855 and '56	1,053	—

TABLE N.—SWEDEN (1776-1855).—ILLEGITIMATE BIRTHS.—*Proportion to Legitimate Births and to the Female Population.*

In Sweden. — Years.	Number of Bastard Children Born Alive.	Bastard Births to 100 Births (including Still-born).	Bastard Births to 100 Legitimate Births (including Still-born).	Bastard Children Born Alive, to 100 Births of Living Children.	Bastard Births to 100 Births of Living Legitimate Children.
1855	10,803	9·55	10·55	9·39	10·36
'54	10,986	9·35	10·31	9·15	10·06
'53	10,144	9·30	10·25	9·11	10·01
'52	10,239	9·64	10·66	9·45	10·44
'51	10,606	9·75	10·80	9·55	10·55
1851–55	52,778	9·51	10·51	9·33	10·28
'46–50	46,570	9·07	9·97	8·89	9·75
'41–45	42,303	8·58	9·39	8·39	9·15
'36–40	32,429	7·09	7·63	6·88	7·38
'31–35	31,289	6·78	7·26	6·56	7·02
1826–30	29,261	—	—	6·24	6·65
'21–25	33,566	—	—	7·01	7·54
'16–20	29,478	—	—	6·92	7·42
'11–15	26,466	—	—	6·63	7·10
'06–10	23,585	—	—	6·42	6·85
'01–05	21,828	—	—	5·85	6·21
1796–1800	19,856	—	—	5·21	5·49
'91–95	18,310	—	—	4·83	5·07
'86–90	15,322	—	—	4·38	4·57
'81–85	11,517	—	—	3·39	3·51
'76–80	11,150	—	—	3·11	3·21
Average	—	8·206	8·952	6·25	6·70

In Sweden. — Years.	One Bastard Birth to the following Number of the whole Female Population.		One Bastard Birth to the following Number of Unmarried Women over 15 Years of Age.	
	Born Alive and Still-born.	Born Alive.	Born Alive and Still-born.	Born Alive.
1851–55	164·94	173·86	45·25	47·69
'46–50	178·78	188·31	48·74	51·34
'41–45	186·67	197·09	49·69	52·46
'36–40	230·96	245·63	57·97	61·66
'31–35	229·91	244·57	54·03	57·47
1826–30	—	247·76	—	57·29
'21–25	—	207·31	—	50·14
'16–20	—	223·32	—	56·81
'11–15	—	239·16	—	60·84
'06–10	—	265·11	—	65·82
'01–05	—	283·82	—	—
1796–1800	—	303·22	—	—
'91–95	—	315·83	—	—
'86–90	—	365·19	—	—
'81–85	—	480·37	—	—
'76–80	—	460·62	—	—
Average	198·25	277·57	51·136	56·15

TABLE N.—SWEDEN (1776-1855).—ILLEGITIMATE BIRTHS, &c.—*Contd.*

In other Countries.	Years.	Bastard Births to 100 Births (including Still-born).	Bastard Births to 100 Legitimate Births (including Still-born).	Bastard Births to 100 Births of Living Children.	Bastard Births to 100 Births Legitimate Children.
Norway	1801-25	—	—	6·91	7·43
	'26-35	—	—	6·84	—
	'36-45	—	—	7·55	—
	'46-55	8·93	9·81	8·77	—
Denmark	1835-44	10·98	12·34	—	—
	'45-49	11·47	12·97	—	—
Hanover	1824-33	—	—	8·14	—
	'34-43	—	—	9·82	—
	'53	10·17	11·31	10·05	11·17
Prussia	1816	—	—	—	8·05
	'19-49	—	—	—	7·65
	'52	—	—	—	8·12
Saxony	1835-39	14·03	—	—	—
	'40-44	14·58	—	—	—
	'45-49	15·06	—	—	—
Austria	1830-38	9·53	—	—	—
	'39-47	10·71	—	—	—
Bavaria	1826-35	20·06	25·09	—	—
	'36-39	20·87	26·38	—	—
	'39-44	20·83	26·31	—	—
	'44-51	20·55	25·87	—	—
Baden	1833-55	15·02	—	—	—
Holland	1810-49	5·02	—	—	—
	'50-53	4·75	4·99	4·57	4·79
Belgium	1841-50	7·44	8·03	—	—
France	1836-40	7·41	—	—	—
	'41-53	7·18	—	—	—
England	1848-52	—	—	6·04	—

TABLE O.—SWEDEN (1776-1855).—SEXUAL RATIO of BIRTHS, *Legitimate and Illegitimate.*

To 1,000 *Girls* Born Alive there were the following Numbers of Boys Born Alive

Years.	Amongst Legitimate Births.	Amongst Illegitimate Births.	Years.	Amongst Legitimate Births.	Amongst Illegitimate Births.
1855	1,058	1,053	1816-20	1,049	1,034
'54	1,042	1,048	'11-15	1,043	1,051
'53	1,044	1,037	'06-10	1,046	1,028
'52	1,058	1,046	'01-05	1,048	1,034
'51	1,053	1,019	1796-1800	1,053	1,017
'51-55	1,051	1,041	'91-95	1,050	978
'46-50	1,051	1,036	'86-90	1,053	999
'41-45	1,041	1,029	'81-85	1,041	1,003
'36-40	1,044	1,049	'76-80	1,046	1,038
'31-35	1,050	1,047	Average	1,047	1,027
'26-30	1,046	1,030			
'21-25	1,041	1,028			

TABLE P.—SWEDEN (1776-1855).—PROPORTION of BIRTHS to DELIVERIES.

Years.	Total Living and Still-born Children.	Of which Born Alive.	Of which Still-born.	One Child Born Alive.	One Still-born Child.	Twins.	Triplets.	Four at a Birth.	Total.
1855	101·47	98·12	3·35	95·40	3·16	1·42	0·02	—	100
'54	101·38	98·12	3·26	95·62	3·02	1·35	0·01	—	100
'53	101·44	98·24	3·20	95·57	3·02	1·39	0·02	—	100
'52	101·37	98·20	3·17	95·63	3·03	1·31	0·03	—	100
'51	101·33	98·02	3·31	95·52	3·18	1·27	0·03	—	100
'51-55	101·39	98·14	3·25	95·55	3·08	1·35	0·02	—	100
'46-50	101·41	98·22	3·19	95·6088	3·0010	1·3718	0·0182	0·0002	100
'41-45	101·37	98·23	3·14	95·6097	3·0334	1·3375	0·0192	0·0002	100
'36-40	101·43	98·37	3·06	95·6419	2·9497	1·3863	0·0217	0·0004	100
'31-35	101·56	98·59	2·97	95·5875	2·8699	1·5228	0·0192	0·0006	100
'26-30	101·54	98·86	2·68	98·4672		1·5095	0·0229	0·0004	100
'21-25	101·52	98·90	2·61	98·5014		1·4774	0·0206	0·0006	100
'16-20	101·56	99·07	2·49	98·4580		1·5165	0·0253	0·0002	100
'11-15	101·72	99·20	2·52	98·3030		1·6674	0·0301	0·0005	100
'06-10	101·97	99·47	2·50	98·3742		1·6018	0·0235	0·0005	100
'01-05	101·69	99·17	2·52	98·3316		1·6392	0·0276	0·0016	100
1796-1800	101·74	98·94	2·80	98·3022		1·6708	0·0262	0·0008	100
'91-95	101·76	98·81	2·95	98·2418		1·7282	0·0289	0·0011	100
'86-90	101·76	99·07	2·69	98·2655		1·7031	0·0314	—	100
'81-85	101·80	98·96	2·84	98·2277		1·7393	0·0315	0·0015	100
'76-80	101·78	98·88	2·90	98·2528		1·7163	0·0306	0·0003	100
Average	101·62	98·80	2·82	—	—	1·5586	0·0248	0·0005	100
Of which in rural districts:									
1851-55	101·39	98·27	3·12	95·65	2·98	1·35	0·02	—	100
'46-50	101·40	98·32	3·08	95·3889	2·9445	1·6482	0·0182	0·0002	100
In towns:									
1851-55	101·46	96·98	4·48	94·594	3·982	1·398	0·026	—	100
'46-50	101·49	97·34	4·15	95·064	3·535	1·384	0·017	—	100

Countries.	Years.	Total Living and Still-born Children.	Of which Born Alive.	Of which Still-Born.	One Child Born Alive.	One Still-born Child.	Twins.	Triplets.	Four at a Birth.	Total.
Norway	1836-45	101·21	97·17	4·04	98·7855		1·1982	0·0163	—	100
	'26-35	101·29	98·00	3·29	98·7203		1·2624	0·0173	—	100
Denmark	1845-49	101·33	97·02	4·31	98·6873		1·2889	0·0238	—	100
	'40-44	101·27	96·63	4·64	98·7419		1·2435	0·0146	—	100
	'34-39	101·39	97·06	4·33	98·6340		1·3383	0·0277	—	100
Hanover	1853	100·68	96·79	3·89	99·3638		0·5852	0·0510	—	100
Saxony	1847-49	101·24	96·96	4·55	98·7698		1·2222	0·0076	0·0004	100
Netherlands	1850-53	101·24	96·19	5·05	98·7671		1·2160	0·0167	0·0002	100
Belgium	1841-50	100·94	96·71	4·23	99·0666		0·9234	0·0097	0·0003	100

TABLE Q.—SWEDEN (1776-1855).—*Proportionate* AGES *of* WOMEN DELIVERED *of* CHILDREN.

Years.	Proportionate Ages of every 100 Women Delivered.								
	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	Over 50.	Totals.
1855	1·12	12·64	25·68	28·88	20·50	9·90	1·26	0·02	100
'54	1·04	12·54	26·10	28·63	20·83	9·71	1·13	0·02	100
'53	1·03	12·97	26·70	28·52	20·15	9·41	1·20	0·02	100
'52	1·15	12·93	27·67	27·71	19·72	9·44	1·36	0·02	100
'51	1·08	13·32	28·34	27·40	19·33	9·18	1·33	0·02	100
1851-55	1·09	12·87	26·87	28·24	20·12	9·54	1·25	0·02	100
'46-50	1·13	14·12	27·51	27·02	19·37	9·37	1·46	0·02	100
'41-45	1·40	15·00	26·83	25·90	19·17	10·17	1·50	0·03	100
'36-40	1·44	14·93	25·95	25·50	20·18	10·40	1·57	0·03	100
'31-35	1·72	14·67	25·18	26·22	10·46	10·27	1·45	0·03	100
1826-30	1·78	14·85	25·73	26·69	19·87	9·51	1·54	0·03	100
'21-25	2·00	15·31	26·56	26·42	18·71	9·44	1·51	0·05	100
'16-20	2·12	15·98	26·37	25·46	19·22	9·31	1·49	0·05	100
'11-15	2·42	16·10	26·10	26·39	18·76	8·61	1·58	0·04	100
'06-10	2·36	15·75	27·04	25·50	18·10	9·36	1·84	0·05	100
1801-05	2·47	16·04	25·31	25·23	19·31	9·76	1·83	0·05	100
1796-1800	2·66	15·31	24·86	26·53	19·43	9·35	1·84	0·02	100
'91-95	2·60	14·84	25·54	26·22	19·43	9·51	1·83	0·03	100
'86-90	2·80	15·53	25·94	26·42	18·65	8·93	1·71	0·02	100
'81-85	3·06	15·80	26·96	25·86	18·20	8·32	1·77	0·03	100
1776-80	2·81	15·80	26·23	25·64	18·00	9·35	2·13	0·04	100
'80	3·11	15·63	26·78	25·98	17·73	8·79	1·94	0·04	100
'79	3·11	16·16	26·15	25·05	17·90	9·25	2·33	0·05	100
'78	2·53	15·60	26·60	26·21	17·84	9·22	1·96	0·04	100
'77	2·51	15·82	25·91	25·80	18·23	9·54	2·16	0·03	100
'76	2·73	15·80	25·67	25·15	18·22	10·09	2·28	0·06	100
Average	2·12	15·18	26·19	26·20	19·19	9·45	1·64	0·03	100
Country districts separately:									
1851-55	1·06	12·72	26·70	28·10	20·27	9·82	1·31	0·02	100
'46-50	1·13	14·05	27·25	26·86	19·52	9·65	1·52	0·02	100
Towns separately:									
1851-55	1·34	14·20	28·42	29·58	18·74	7·01	0·70	0·01	100
'46-50	1·10	14·78	30·03	28·62	17·91	6·75	0·80	0·01	100

TABLE R.—SWEDEN (1776-1855).—PROPORTION *of the* STILL-BORN *to the Number of* BIRTHS.

Countries.	Years.	One Still-born Child, to Born Alive.	Still-born to 100 Births.	Countries.	Years.	One Still-born Child, to Born Alive.	Still-born to 100 Births.
Sweden	1855	29·29	3·30	Norway	1846-55	23·5	4·08
	'54	30·14	3·21		'36-45	26·3	3·84
	'53	30·65	3·15				
	'52	31·01	3·12	Denmark	1845-49	22·47	4·26
	'51	29·65	3·26		'35-44	21·92	4·36
	1851-55	30·12	3·21				
	'46-50	30·82	3·14	Hanover	1853	24·84	3·87
	'41-45	31·23	3·10				
	'36-40	32·11	3·02	Prussia	1825-49	—	3·69
	'31-35	33·16	2·92				
	1826-30	36·83	2·65	Saxony	1847-49	21·24	4·49
	'21-25	37·90	2·57				
	'16-20	39·70	2·45	Bavaria	1844-51	31·26	3·09
	'11-15	39·35	2·48				
	'06-10	39·72	2·45	Baden	1839-55	—	3·3
	'01-05	39·30	2·48				
	1796-1800	35·30	2·75	Netherlands	1848-53	—	4·97
	'91-95	33·44	2·90				
	'86-90	36·71	2·65	Belgium	1841-50	22·87	4·18
	'81-85	34·84	2·79				
	'76-80	34·14	2·84	France	1841-45	32·26	—
Average	1776-1855	35·29	2·77		'46-50	32·59	3·10
					'51-54	25·70	3·79

TABLE S.—SWEDEN (1776-1855).—*Proportion of* DEATHS *in* CHILDBED *to* WOMEN DELIVERED.

Years.	Number of Deaths.	Deaths to 100 Deliveries.	Years.	Number of Deaths.	Deaths to 100 Deliveries.
1855	508	0·43	1821-25	3,226	0·67
'54	535	0·43	'16-20	3,170	0·73
'53	470	0·41	'11-15	3,181	0·79
'52	491	0·44	'06-10	3,294	0·89
'51	525	0·46	'01-05	2,923	0·78
1851-55	2,529	0·44	1796-1800	3,289	0·85
'46-50	2,343	0·44	'91-95	3,885	1·01
'41-45	2,289	0·44	'86-90	3,297	0·93
'36-40	2,438	0·51	'81-85	2,864	0·83
'31-35	2,743	0·57	'76-80	3,235	0·89
'26-30	3,184	0·66			

TABLE T.—SWEDEN (1751-1855).—DEATHS, *and their Proportion to Inhabitants, to Births, and to Sexes.*

Years.	*Number* of Deaths.	Number of *Inhabitants* to *One* Death.	Number of *Deaths* to 100 Inhabitants.	Children Born Alive, to 100 Deaths.	Deaths of *Females* to every 100 Deaths of Males.
1855	77,734	46·5	2·15	148	99·60
'54	70,846	50·3	1·98	169	96·76
'53	84,047	42·1	2·37	132	96·43
'52	80,090	43·9	2·27	135	93·68
'51	72,506	48·0	2·08	153	92·94
1851–55.............	385,223	46·1	2·17	146	95·87
'46–50.............	354,957	47·7	2·09	147	95·88
'41–45....... ...	325,654	49·3	2·03	154	94·91
'36–40.............	347,226	44·5	2·24	135	96·22
'31–35.............	339,331	43·8	2·28	140	96·48
1826–30.............	355,777	40·0	2·50	133	94·65
'21–25.............	294,594	45·2	2·21	162	95·07
'16–20.............	311,644	40·5	2·47	136	98·17
'11–15...........	327,395	37·0	2·70	121	97·83
'06–10.............	379,496	32·5	3·07	96	98·66
'01–05.............	290,176	40·9	2·44	128	99·92
1796–1800.............	298,492	39·3	2·54	131	98·65
'91–95.............	280,276	39·5	2·53	135	100·11
'86–90.............	298,450	36·5	2·74	117	95·12
'81–85.............	297,335	36·0	2·78	114	98·43
'76–80.............	256,872	40·4	2·47	139	101·39
1771–75.............	332,740	33·2	3·01	95	101·82
'66–70.............	263,811	37·8	2·64	128	101·50
'61–65.............	281,247	34·5	2·90	120	101·59
'56–60.............	264,301	35·6	2·81	123	103·67
'51–55.............	240,009	37·6	2·66	141	102·31
Average........	—	39·9	2·50	130	98·49

Supplement to TABLE T.—DEATHS, *and their Proportion to Inhabitants, to Births, and to Sexes.*

Countries.	Years.	*Number* of *Inhabitants* to *One* Death.	*Births* (including Stillborn) to 100 Deaths.	Deaths of *Females* to 100 Deaths of Males.
Norway	1826–35	54·1	164	98
	'36–45	55·7	156	96
	'46–55	55·64	175	97
Denmark	1835–44	45·20	142	95
	'45–49	44·13	141	95
Saxony	1840–49	33·25	135	94
Belgium......................	1841–50	44·02	125	101
France	1821–30	40·11	—	—
	'31–40	39·71	—	—
	'41–50	41·58	—	—
	'51–53	43·	—	—

Supplement to TABLE T.—DEATHS, *and their Proportion to Births, &c.*—Contd.

Countries.	Years.	*Number* of *Inhabitants* to *One* Death.	*Births* (including Stillborn) to 100 Deaths.	Deaths of *Females* to 100 Deaths of Males.
Prussia	1816–49	33·91	139 ⎫ born	94
	'52	30·38	121 ⎬ alive	101
Bavaria	1836–44	33·45	119	95
	'45–51	—	123	96
Austria	1830–47	30·43	—	—
Hanover......................	1853	43·11	134 born alive	99
Baden......................	1830–55	34·26	—	95
Wurtemburg	1843–52	31·78	—	95
England	1838–52	45·	—	—
Netherlands	1840–49	35·6	—	95
	'50–53	40·4	144	96

TABLE U.—SWEDEN (1846-50).—*Proportion of* DEATHS *to* INHABITANTS *and to* BIRTHS.

Provinces.	1851 to 1855.			1846 to 1850.		
	Average *Deaths* to 100 Inhabitants.	*Born Alive* to 100 Deaths.	*Deaths* of *Females* to 100 Deaths of Males.	Average *Deaths* to 100 Inhabitants.	*Born Alive* to 100 Deaths.	*Deaths* of *Females* to 100 Deaths of Males.
Stockholm	2·40	121	89·13	2·60	104	92·28
Upsala.............	2·20	124	104·01	2·21	119	103·24
Södermanland	1·13	149	92·75	2·25	123	96·73
Östergöthland	2·13	143	98·02	2·14	138	97·38
Jönköpings	1·99	153	101·87	1·79	165	96·27
Kronoberg	1·86	179	100·21	1·87	170	99·97
Calmar	2·16	151	96·81	2·41	130	97·08
Gotlands	1·83	138	97·51	1·49	121	96·77
Blekinge	2·63	129	95·89	2·41	136	93·80
Christianstad	2·05	158	96·95	1·88	174	98·59
Malmöhus	2·03	165	95·62	1·93	171	93·49
Halland	2·01	155	92·91	2·05	147	95·55
Götheborg and Bohus	2·46	130	91·34	2·23	139	94·41
Elfsborg	2·21	145	98·91	1·95	160	95·84
Skaraborg	2·24	148	94·42	2·07	157	96·71
Wermland	2·05	160	93·04	1·87	169	95·49
Nerike......................	2·07	155	97·23	2·06	155	95·82
Westmanland	2·26	125	101·74	2·30	122	102·77
Kopparberg.............	1·97	155	94·44	1·99	148	97·87
Gefleborg.............	1·91	145	94·91	1·76	149	95·38
Wester-Norrland........	1·82	178	94·11	1·81	170	95·05
Jemtland	1·38	191	101·40	1·29	194	97·42
Westerbotten	1·65	217	96·39	1·44	245	84·79
Norrbotten	2·14	175	100·06	1·79	198	98·97
Stockholm city	4·46	76	91·73	3·85	83	88·15
Rural districts.............	2·03	156	96·24	1·99	155	96·65
Towns	3·31	93	93·92	2·98	98	91·35

TABLE W.—SWEDEN (1749-1855).—DEATHS, *Distributed according to* MONTHS.

Months Reduced to Equal Length.	Sweden and Finland.	Sweden.							
	1776 to 1760.	1776 to 1780.	1781 to 1785.	1786 to 1790.	1791 to 1795.	1796 to 1800.	1801 to 1805.	1806 to 1810.	1811 to 1815.
		Out of 100 Deaths in the Year there occurred in each *Month.*							
January	8·48	8·55	8·02	9·36	9·31	8·56	9·36	8·73	9·31
February	8·70	8·97	8·27	9·34	9·58	9·02	9·82	8·92	9·08
March	9·42	9·03	8·74	9·72	9·90	10·12	9·83	9·69	9·49
April	10·30	9·90	8·95	9·81	9·96	10·52	10·19	10·55	10·33
May............	10·01	9·30	9·08	9·38	9·39	9·64	9·51	9·20	9·74
June............	8·71	8·55	9·02	8·16	8·18	8·25	8·05	7·61	7·99
July	7·87	7·62	8·13	7·24	7·40	7·40	7·09	6·63	6·97
August......	7·49	7·74	8·92	7·05	7·33	6·97	6·79	6·97	7·70
September..	7·17	7·65	8·38	6·78	7·07	6·75	6·62	8·69	7·38
October	6·99	7·44	7·54	6·83	6·85	7·15	6·87	8·00	6·94
November ..	7·27	7·70	7·37	7·91	7·23	7·39	7·39	7·38	7·12
December ..	7·59	7·55	7·58	8·42	7·80	8·23	8·35	7·63	7·95
Total	100	100	100	100	100	100	100	100	100

Months Reduced to Equal Length.	Sweden.								Average, 1749 to 1855.
	1816 to 1820.	1821 to 1825.	1826 to 1830.	1831 to 1835.	1836 to 1840.	1841 to 1845.	1846 to 1850.	1851 to 1855.	
	Out of 100 Deaths in the Year there occurred in each *Month*								
January	9·15	9·65	9·63	9·02	9·09	9·66	9·77	8·29	9·09
February	9·24	9·78	10·06	9·08	10·17	10·54	9·47	9·66	9·39
March	9·46	10·08	10·07	9·33	9·90	10·30	9·32	10·09	9·68
April	9·74	10·09	10·68	9·75	10·10	9·79	10·04	9·82	10·03
May............	9·12	8·83	9·56	9·28	8·88	8·41	9·14	8·92	9·26
June............	7·57	7·87	7·70	7·75	7·54	7·12	7·40	7·02	7·91
July	6·81	7·11	6·38	6·47	6·69	6·54	6·50	6·32	7·01
August......	7·45	6·65	6·44	8·21	6·92	6·38	6·50	6·83	7·20
September..	7·19	6·67	6·40	8·58	6·77	7·01	6·76	8·48	7·31
October	7·45	7·05	6·63	6·76	7·08	7·59	7·45	7·91	7·21
November ..	8·04	7·92	7·86	7·64	7·78	8·15	8·36	8·40	7·71
December ..	8·78	8·30	8·59	8·13	8·48	8·51	9·29	8·26	8·20
Total	100	100	100	100	100	100	100	100	100

Supplement to TABLE W.—DEATHS *in other Countries Distributed according to Months.*

Months.	Norway.		Denmark.		Prussia.	Saxony.	Belgium.	France.
	1837 to 1845.	1846 to 1855.	1835 to 1839.	1840 to 1849.	1816 to 1849.	1834 to 1849.	1841 to 1850.	1853.
	Out of 100 Deaths, there occurred in the following Months:—							
January	9·5	10·0	9·97	9·36	⎫ 28·34 ⎬	8·92	10·44	8·57
February	8·7	8·8	10·29	9·78		8·43	10·12	10·12
March	9·9	9·7	10·31	10·39	⎭	9·21	10·07	10·94
April	9·7	9·7	10·73	10·48	⎫ 23·93 ⎬	8·93	9·47	9·98
May	9·6	9·6	9·98	9·49		8·57	8·55	8·47
June	8·4	7·8	8·49	8·17	⎭	7·50	7·97	7·60
July	7·3	7·2	7·05	7·15	⎫ 22·84 ⎬	7·65	7·11	6·97
August	6·8	7·1	6·09	6·53		8·30	6·99	7·19
September	6·6	7·3	5·78	6·19	⎭	8·28	7·22	7·49
October	7·2	7·5	6·15	6·85	⎫ 24·88 ⎬	8·00	6·92	7·02
November	7·5	7·5	7·26	7·52		7·83	7·04	7·00
December	8·8	7·8	7·90	8·09	⎭	8·29	8·10	8·65
Total........	100	100	100	100	—	100	100	100

TABLE X.—SWEDEN (1776-1855).—SUICIDES *at every Age.*

Years.	Under 25 Years Old.				25 to 50.				Above 50.			
	Males.		Females.		Males.		Females.		Males.		Females.	
	Married.	Single.	Married.	Single.	Married.	Single.	Married.	Single.	Married.	Single.	Married.	Single.
1855	2	16	1	7	55	47	9	12	27	17	8	3
'54	3	18	—	9	61	36	16	10	38	18	12	7
'53	2	17	—	3	70	48	16	12	57	19	9	8
'52	6	26	1	7	101	62	21	10	63	20	8	12
'51	2	14	1	9	76	35	10	14	45	14	11	6
1851–55	15	91	3	35	363	228	72	58	230	88	48	36
'46–50	6	87	2	39	336	231	60	67	174	74	41	29
'41–45	12	86	3	40	334	166	55	52	172	72	44	22
'36–40	13	70	1	34	367	187	54	49	182	48	34	31
'31–35	7	69	2	26	253	157	55	39	115	41	40	17

Years.	Total.				General Total.		General Total, Both Sexes.	Total Percentage of Suicides to all Causes of Death.		
	Males.		Females.							
	Married.	Single.	Married.	Single.	Married.	Single.		Males.	Females.	Total.
1855	84	80	18	22	164	40	204	0·42	0·10	0·26
'54	102	72	28	26	174	54	228	0·48	0·14	0·32
'53	129	84	25	23	213	48	261	0·50	0·12	0·31
'52	170	108	30	29	278	59	337	0·67	0·15	0·42
'51	123	63	22	29	186	51	237	0·49	0·15	0·33
1851–55	608	407	123	129	1,015	252	1,267	0·52	0·13	0·33
'46–50	516	392	103	135	908	238	1,146	0·50	0·14	0·32
'41–45	518	324	102	114	842	216	1,058	0·50	0·14	0·33
'36–40	562	305	89	114	867	203	1,070	0·49	0·12	0·31
'31–35	375	267	97	82	642	179	821	0·37	0·11	0·24
1826–30	—	—	—	—	718	165	883	0·39	0·10	0·25
'21–25	—	—	—	—	583	172	755	0·39	0·12	0·26
'16–20	—	—	—	—	497	113	610	0·32	0·07	0·20
'11–15	—	—	—	—	315	122	437	0·19	0·08	0·13
'06–10	—	—	—	—	290	109	399	0·15	0·06	0·11
'01–05	—	—	—	—	285	98	383	0·20	0·07	0·13
1796–1800	—	—	—	—	212	74	286	0·14	0·05	0·10
'91–95	—	—	—	—	208	73	281	0·15	0·05	0·10
'86–90	—	—	—	—	188	60	248	0·12	0·04	0·08
'81–85	—	—	—	—	166	66	232	0·11	0·04	0·08
'76–80	—	—	—	—	138	53	191	0·11	0·04	0·07
Norway—										
1846–55	—	—	—	—	—	—	—	—	—	0·59
'36–45	—	—	—	—	—	—	—	—	—	0·53

TABLE Y.—SWEDEN (1776-1855).—DEATHS *from* ACCIDENTAL CAUSES.

Years.	Drowned.			Proportion per Cent. of Drowned to Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
1855	693	124	817	1·78	0·32	1·05
'54	862	122	984	2·39	0·35	1·39
'53	883	135	1,018	2·06	0·33	1·21
'52	1,251	238	1,489	3·03	0·61	1·86
'51	1,074	183	1,257	2·86	0·56	1·73
1851–55	4,763	802	5,565	2·42	0·43	1·44
'46–50	4,639	885	5,524	2·56	0·51	1·56
'41–45	4,857	842	5,699	2·91	0.53	1·75
'36–40	3,987	755	4,742	2·25	0·44	1·37
'31–35	4,403	846	5,249	2·55	0·51	1·55
1826–30	4,393	784	5,177	2·40	0·45	1·46
'21–25	4,743	886	5,629	3·14	0·62	1·91
'16–20	3,498	750	4,248	2·22	0·49	1·36
'11–15	3,209	679	3,888	1·94	0·42	1·19
'06–10	3,001	574	3,575	1·57	0·30	0·94
'01–05	2,771	593	3,364	1·91	0·41	1·16
1796–1800	2,765	553	3,318	1·84	0·37	1·11
'91–95	2,544	557	3,101	1·82	0·40	1·11
'86–90	2,260	597	2,857	1·48	0·41	0·96
'91–85	2,094	565	2,659	1·40	0·38	0·89
'76–80	1,792	436	2,228	1·40	0·34	0·87
Norway—						
1836–55	—	—	—	—	—	2·85

Years.	Suffocated from the Fumes of Charcoal.			Destroyed by Lightning.			Hydrophobia.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1855	24	12	36	16	9	25	—	2	2
'54	33	5	38	4	1	5	4	1	5
'53	25	7	32	4	4	8	2	1	3
'52	30	12	42	8	7	15	1	—	1
'51	33	9	42	7	2	9	—	—	—
1851–55	145	45	190	39	23	62	7	4	11
'46–50	121	45	166	28	28	56	4	1	5
'41–45	115	43	158	29	14	43	6	—	6
'36–40	107	45	152	32	12	44	2	3	5
'31–35	88	30	118	34	26	60	1	2	3
1826–30	123	48	171	27	13	40	12	12	24
'21–25	95	71	166	17	12	29	11	12	23
'16–20	82	60	142	33	34	67	27	20	47
'11–15	98	43	141	42	24	66	15	9	24
'06–10	106	71	177	39	17	56	18	20	38
'01–05	65	56	121	67	22	89	19	34	53
1796–1800	69	34	103	24	16	40	13	21	34
'91–95	66	41	107	12	12	24	13	20	33
'86–90	59	46	105	21	19	40	34	35	69
'81–85	68	36	104	19	7	26	24	21	45
'76–80	48	31	79	24	13	37	20	20	40

TABLE Z.—SWEDEN (1749-1855).—*Proportion of* DEATHS *from Small-pox, and Typhus Fever, and of Vaccinated to Children Born Alive.*

Years.	Number of Deaths from Small-pox.	Per Cent. of Total Deaths.	Number of Vaccinated.	Percentage of Vaccinated to Children Born Alive.	Number of Deaths from Typhus and Typhoid Fever.	Percentage of last column to Total Deaths.
1855	41	0·05	95,493	83	—	—
'54	204	0·29	95,498	80	—	—
'53	279	0·33	83,258	75	—	—
'52	1,534	1·91	86,130	80	—	—
'51	2,488	3·43	97,277	88	—	—
1851–55	4,546	1·18	457,656	81	—	—
'46–50	1,803	0·51	413,445	79	—	—
'41–45	316	0·09	363,286	74	—	—
'36–40	4,888	1·41	353,792	77	—	—
'31–35	3,873	1·14	340,721	73	—	—
1826–30	1,639	0·46	314,860	68	39,629	11·14
'21–25	1,948	0·66	345,114	74	23,025	7·82
'16–20	1,541	0·49	289,797	70	29,825	9·57
'11–15	2,429	0·74	175,632	44	32,629	9·97
'06–10	8,653	2·28	93,595	25	58,135	15·32
'01–05	11,604	3·99	47,258	13	30,376	10·47
1796–1800	23,381	7·83	—	—	23,513	7·88
'91–95	17,847	6·37	—	—	26,504	9·46
'86–90	20,561	6·89	—	—	44,981	15·07
'81–85	25,412	8·55	—	—	27,926	9·39
'76–80	28,529	11·11	—	—	21,487	8·36
1771–75	25,267	7·59	—	—	48,833	14·68
'66–70	34,361	13·02	—	—	23,685	8·98
'61–65	36,041	12·81	—	—	32,587	11·59
'56–60	32,681	12·37	—	—	26,140	9·89
'51–55	35,415	14·76	—	—	16,495	6·87
1750	6,180	12·98	—	—	3,581	7·52
'49	4,453	8·99	—	—	3,948	7·97

On PRISON STATISTICS *and* DISCIPLINE *in* LOWER BENGAL. *By* FREDERIC JOHN MOUAT, *M.D., F.R.C.S., Surgeon-Major Bengal Army, Inspector General of Prisons in the Lower Provinces of the Bengal Presidency, Fellow and Member of the Senate of the University of Calcutta, F.S.S., F.R.G.S., M.R.A.S., Honorary Member of the Royal Geographical Society of Berlin, &c., &c., &c.*

CONTENTS

I.—*Prison Discipline in Bengal: Past and Present.*

IT was originally my intention to have submitted to the Statistical Society a review of the whole subject of prison discipline in Bengal, illustrated by such of the statistics of prison management in that Presidency, as are essential to its complete discussion and treatment. I find, however, that it is impossible to condense the various topics that would demand consideration within moderate and reasonable compass. The vast extent of territory subject to the Government of Bengal, with the many different races by which it is inhabited, numbering little, if at all, less than between forty and fifty millions of people, produce, as might be expected, striking differences in the moral and material effects of imprisonment, which are deserving of careful inquiry. Very much of the discussion would, however, relate to subjects that are now considered to belong to the somewhat vague and unsatisfactory domain of social science. I shall, therefore, for the present, content myself with the briefest possible general statement of the system of discipline and management, past and present, in the prisons of Bengal, and shall then proceed to detail the results that have been obtained in some of the more im-

portant branches of prison statistics, particularly since this section of the judicial administration of the lower provinces has been under my charge.

Prior to 1838 the prisons of Bengal were under the immediate control of the magistrates, subject to the supervision of the judges and commissioners of circuit, acting under the orders of the Nizamut. Adawlut of Calcutta.

The state of prison discipline at that time was found, on inquiry, to be very nearly that of the second stage of prison reform in England. Attention was paid to the physical condition of the inmates of gaols; cleanliness was enjoined, and to a certain extent, observed; the sick were provided with medical care and treatment; the provision of food and clothing was regulated by some degree of system; and in all details of internal economy there were none of the scandalous shortcomings found by Howard in the prisons of Great Britain. The two sexes were never intermixed in the same wards; the untried were separated from the tried; debtors were not associated with criminals; and the prisons were never hot-beds of disease and dens of pollution, from disregard of the commonest dictates of humanity. At no time in their history were the inmates compelled to bribe their gaolers to obtain the bare necessaries and decencies of life.

In all these particulars the action of the Government of India, and of the Court of Directors of the late East India Company, were, at an early period, in advance of public opinion and practice at home.

There was in each zillah or county a district gaol, in which all persons accused and convicted of crime were confined. The magistrate was only required by law to visit his gaol once a week. Few saw it as often, and it was unentered for months by all when absent on circuit in their districts. The real charge of the prisoners was in the hands of the gaolers, an ill paid class of native functionaries, who lived by peculation and the sale of forbidden indulgences. In such circumstances discipline was of necessity lax, and imprisonment as an instrument of punishment of more than doubtful efficacy. The prisons obtained the sobriquet of the father-in-law's house, in which comfortable board, with tolerable lodging, combined with a moderate and purchasable amount of personal restraint, were enjoyed at the public expense.

In the year above-mentioned (1838), the Bengal Prison Discipline Committee, which had been appointed to consider the whole subject of gaol management and discipline in India—of which Lord Macaulay was a member, and the present Lieutenant-Governor of Bengal, the Hon. Sir J. P. Grant, K.C.B., the secretary—recommended the establishment of central penitentiaries in the centre of every seven or eight districts. They were to be under the management of keepers—

European or native — on salaries sufficiently ample to secure the services of honest impartial men, of " good temper, sound judgment, " coolness, energy, and courage."

These penitentiaries were to be provided with solitary and sleeping cells, and to be furnished with tread-wheels, cranks, and similar mechanical devices for the introduction of hard, wearisome, monotonous, uninteresting labour. In them were to be incarcerated all prisoners sentenced for more than one year to solitary confinement or hard labour.

The strictest silence was to be enforced day and night, at work and at meals. Cooked rations were to be provided for each prisoner, to be eaten in solitude in his sleeping cell. If work at trades were to be permitted, which the Committee deemed undesirable, the same strict silence was, as far as practicable, to be enforced.

The punishments for breaches of prison rules were to be solitude in darkness, and privation of food. If experience should prove whipping to be indispensable, it was to be authorized, under strict rules to prevent abuse, but not otherwise. The Committee did not think that such punishment would be necessary.

The existing district gaols were to be extended so as to furnish the means of separating different classes of offenders by day and by night. They were to serve as houses of correction for all prisoners sentenced to solitary confinement, or to imprisonment with hard labour, for terms not exceeding one year. They were likewise to be used for the confinement of prisoners sentenced to simple imprisonment without labour; for the safe custody of untried persons; and to contain a separate compartment for debtors, in all places that were unprovided with a civil gaol. All the different compartments were to be entirely separated from each other, and to be subdivided to such extent as to provide for the system of classification recommended by the Committee. The plan of work to be introduced was laid down, and special provision was made for the accommodation of the few prisoners of European habits who were likely to be sentenced to simple imprisonment.

The compartment for untried prisoners was to be arranged so as to afford to each prisoner, if he wished it, " a small apartment to " himself, with a court to which he may have access; or the means of " living with those prisoners only to whose society he may feel no " repugnance, and from whose society there may be no reason to fear " ill consequences to himself."

The reasons for this most just and humane measure were detailed, together with the system of labour, discipline, and feeding that were to be observed.

Lastly, the appointment of a special inspector of prisons for the provinces under the jurisdiction of each local government was

advised, to secure the good and uniform working of any general system of prison discipline.

Of the above recommendations, the only one that has been fully carried into effect in Lower Bengal has been the last mentioned.

By Act XVIII of 1844, the whole control and superintendence of the prisons of Bengal was vested in the magistrates and joint magistrates acting under the instructions of the sessions judges; and in all matters relating to the gaols, the prisoners confined in them, the establishments belonging to them, and the places of banishment and transportation of prisoners, those officers were to be guided by the instructions of the local government. The gaols were thus taken from under the control of the Nizamut Adawlut.

In 1853 the first prison inspector was appointed in Bengal. The office was stated to have been instituted for the purpose of assisting in the introduction of a stricter system of classification, management, and discipline; to check all unnecessary expenditure, and render the labour of the convicts as productive and remunerative as possible; and to employ to the best purpose the sums sanctioned for the construction of new prisons, or the repairs and alterations of old ones. The appointment was not intended to alter the existing system, which vested the immediate supervision of prisons in the sessions judges and the commissioners of the non-regulation provinces.

The inspector was authorized to sanction any item of expenditure for an object of permanent utility, to an extent not exceeding 50*l.*, and to raise the allowance for gaol manufactures as much as might be required. All his proceedings and orders were reported to the Government for information, and when necessary, for sanction. His jurisdiction was limited to the gaols in the regulation provinces, the three northern districts of the south-western frontier agency, Darjeeling, Cachar, and the Kasial Hills.

In November, 1855, the office was placed under my charge. In 1856 the gaols in Assam, Aracan, and the two southern divisions of the Chota Nagpore agency were added to the jurisdiction of the inspector. In 1857 the powers and duties of the office were considerably extended. The entire control of the department, in all save the medical care and treatment of the sick, was vested in the inspector, acting under the immediate orders of the Government. The disposal of prisoners sentenced to banishment and transportation, the release of prisoners labouring under incurable bodily infirmities, the revision of all orders passed by the magistrates regarding the appointment, punishment, and removal of officers on their gaol establishments, the sanctioning of rewards for the capture of escaped prisoners, the full and sole control over all prison expenditure, and the general management of the department, now form the duties and responsibilities of the officer in question. All his proceedings are

reported to the Government for information, and for sanction in such matters as he is not competent to dispose of under the rules and regulations in force. The duties of the sessions' judges are limited to visitation. The inspector is armed with the powers of a magistrate in every prison in his jurisdiction.

The rules for the management of the prisons in Bengal are contained in various acts, regulations, and circular orders. They have not yet been embodied in a regular prison code.

The only other result of the recommendations of the Prison Discipline Committee was the establishment of a penitentiary at Deegah, near Patna, and of a prison to which the name of penitentiary was attached, at Hazareebaugh. The former was abandoned, after a few years' trial, from its extreme unhealthiness. As a place of punishment it was much dreaded. Its failure was entirely due to mismanagement, improper construction of buildings, and defective arrangements generally. The prison at Hazareebaugh was destroyed during the mutiny, and was utterly undeserving the name of a penitentiary. Beyond the employment of the convicts in handicrafts, no provision was made in it to carry out the recommendations of the Prison Discipline Committee.

The only prison now existing in Lower Bengal that approaches the character of a penitentiary is the Alipore gaol, which contains an average of from 1,200 to 1,500 prisoners, and in which the industrial occupation of the convicts has been carried to a high pitch of successful development. In no other respect is it, however, entitled to be classed with such institutions as the Millbank and Pentonville prisons, or the Mountjoy prison in Dublin. It is under the charge of an officer who is magistrate of the district in which it is placed, and who has not time to regulate its internal economy, or to make himself acquainted with the thousand minute circumstances that afford ample occupation for the whole time of experienced prison governors in Europe, who reside in their gaols, and have no other duties to perform. It is defective in construction, security being its chief and only merit, and affords none of the facilities for the introduction of such a system of discipline as was recommended by the Bengal Committee, and is now successfully carried out in all the central prisons of Great Britain.

The other prisons, under the charge of the inspector, are fifty-three in number, and with the exception of the Crown gaols in Calcutta, and four or five small prisons in the Sonthal Pergunnahs, which are not under the control of that officer, include all places in the lower provinces devoted to the safe custody and punishment of criminals. To many of the zillah gaols, which are equivalent to the county prisons of England, are attached small subdivision lock-ups for the safe custody of persons accused of crime in the subdivisions,

provided with deputy magistrates, prior to their transfer to the zillah sessions' courts for trial. They usually contain from ten to thirty inmates, and are now about fifty in number.

The prisons of the lower provinces are arranged in divisions, which usually correspond with the circles of the revenue department. They are enumerated below.

REGULATION PROVINCES.

1. PATNA DIVISION.

Patna.
Sarun.
Behar.
Shahabad.
Chumparun.
Tirhoot.

2. BHAUGULPORE DIVISION.

Bhaugulpore.
Monghyr.
Purneah.

3. RAJSHAHYE DIVISION.

Rajshahye.
Pubna.

Rungpore.
Bograh.
Dinagepore.
Maldah.
Moorshedabad.

4. DACCA DIVISION.

Dacca.
Furreedpore.
Sylhet.
Mymensing.
Backergunge.

5. CHITTAGONG DIVISION.

Chittagong.
Tipperah.
Noakholly.

6. NUDDEAL DIVISION.

Nuddeah.
Alipore.
Baraset.
Jessore.

7. BURDWAN DIVISION.

Burdwan.
Hooghly.
Howrah.
Bancoorah.
Beerbhoom.
Midnapore.

8. CUTTACK DIVISION.

Cuttack.
Balasore.
Pooree.

NON-REGULATION PROVINCES.

9. CHOTA NAGPORE DIVISION.

Hazareehaugh.
Lohardugga.
Maunbhoom.
Singbhoom.
Sumbulpore.

10. ARACAN DIVISION.

Akyab.
Ramree.
Sandoway.

11. ASSAM DIVISION.

Gowalparah.
Kamroop.

Nowgong.
Seebsaugor.
Durrung.
Debrooghur.
Kassiah Hills.

12.

Cachar.
Darjeeling.

All of the above are places of detention as well as of punishment.

II.—*Nature and Extent of the Statistical Information contained in the Bengal Prison Returns.*

The only other topic on which I shall touch, before submitting to the meeting a few statistical facts concerning the prisons of Lower Bengal, has reference to the nature and extent of the statistical information required and obtained from the officers serving under me.

When the control of the prison department came into my hands, I found that the returns submitted to the Government were not only defective in many important particulars, but that the different statements were for different periods, some monthly, some quarterly, some half-yearly, and some annual; and of the latter, part were for the official, and part for the calendar year. There was an absence of harmony in the whole working of the system in force which rendered it impossible to extract any sound conclusions from data so diverse, few of which could stand the test of strict scrutiny.

My first care was to devise a scheme of returns that would embody the chief facts of interest connected with each prison, in the easiest manner consistent with accuracy. I adopted the form of monthly returns, abolishing all others, after consultation with the officers concerned, and with the sanction of the Government.

The advantage of the monthly plan in India consists in the fact, that as all accounts and expenditure are adjusted monthly, all calculations must be brought up to that period for the audit of bills. The period itself is short, and well defined, and as the calculations are not extended over an extraordinary length of time, great accuracy can be secured with comparatively little expenditure of time and trouble.

The forms to be filled in are printed and sent from my office. They embrace the following points: the disposal of the whole number of persons in the prisons, tried and untried; their distribution in wards and hospitals; the number admitted during the month; discharged by expiry of sentence; released from any other cause; escaped, executed, or dead; their religion, caste, occupation prior to imprisonment, and state of education prior to admission. The mortality register contains the name, age, caste, birthplace, crime, and sentence, date and length of imprisonment, time of sentence unexpired, and disease or accident which had caused a fatal result. The statistics of cost are obtained from the monthly bills, in which all items are carefully accounted for. The whole are scrutinized and verified in my office, all errors detected being immediately corrected.

I find on referring to the proceedings of the International Statistical Congress held in London in 1860, under the presidency of His late Royal Highness the Prince Consort, that my records are still deficient in one or two points, considered of sufficient importance to place on permanent record. These I hope to be able to obtain hereafter.

I should not have dwelt on these matters in a paper addressed to an association, by which the value of all statistical details necessary to illustrate so important a branch of judicial administration is fully recognised, were it not that the necessity and interest of such infor-

mation have recently been denied by some authorities in India, where I had to defend myself from the charge of devoting much time and trouble to the accumulation of useless facts and figures. I am glad, therefore, to be armed with the high authority of the International Congress in their resolution on the subject of prison statistics. I quote this resolution in the margin,* because it is buried in a big book which is not generally accessible abroad, as I failed to procure a copy of it in Calcutta last year. My system of returns has now been in operation for four years; they are generally well understood by the officers in charge of the prisons; the difficulties connected with their introduction have all been overcome, and I have every reason to believe that the results obtained are correct and trustworthy.

Little that is accurate and reliable is known of India statistically. To so small an extent has the numerical method been applied to the investigation of the social condition and material progress of that great empire, that it seems to me to be additionally incumbent on all officers employed in the country, to omit no opportunity of collecting and recording such facts and observations in their respective departments, as will, in the words of the first resolution adopted by the last Statistical Congress, "afford valuable materials whereby to institute " wise and permanent legal reforms, and furnish information of great " importance, illustrative of the social and moral wants of the " people."

The following are the points on which I now submit such statistical details as I have been able to glean regarding prison management in Lower Bengal, viz.: 1. the number of prisoners in custody, and their disposal in 1859-60; 2. the dietary; 3. sickness, and mortality; 4. labour, and the means used for reformation by teaching of trades; 5. cost; 6. escapes and recaptures, and 7. education previous to imprisonment of the inmates of the goals under my charge.

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* Resolution 13, Section Judicial Statistics.—" That the prison statistics should " exhibit the number of prisons, distinguishing those where persons are detained " from those where convicts are subject to punishment; the system, discipline, and " accommodation in each prison; the number of prisoners entered and disposed of " according to their age, sex, place of birth, trade or occupation, crime and punish-" ment; the number of recommittals in the respective prisons; the dietary and " the state of health, viz., the rate of mortality, number of cases of suicide and " insanity, the amount and value of work performed by, and the means used for " the reformation of prisoners by instruction, by lectures, by teaching of trades, " and other industrial occupations, and the results; the cost of the prisons; the " number of prison offences, and how punished; the escapes and attempts to escape; " the number released previous to the expiration of sentence, by licence or other-" wise, in relation to the crimes they had committed and the amount of punish-" men they had undergone."

III.—*Prisoners in Custody and their Disposal in* 1858-59 *and* 1859-60.

The number of prisoners of all classes in custody in the fifty-four prisons above-mentioned, was in 1859-60, 71,467, against 75,141 of the previous year, viz. :—

		1858–59.	1859–60.
Number in Gaol on the 30th April	{ Males	21,024	18,782
	{ Females	588	617
		21,612	19,399
Number admitted during the year	{ Males	53,101	30,715
	{ Females	428	1,353
		53,529	52,068
Total....................		75,141	71,467

Showing in the latter year a decrease in the whole number of males accused of crime with a large increase in the number of females. Although the cost of food, and of other necessaries of life, had continued to rise in Bengal, wages had increased in a corresponding ratio, so that high prices had not produced the want and misery that usually accompany them, and are among the fruitful sources of crime.

Disposal of the above.	1858–59.	1859–60. Males.	1859–60. Females.	1859–60.
Of the above there were—				
Transferred to other districts	11,736	12,341	260	12,601
Released	39,974	36,012	999	37,011
Escaped	1,447	255	4	259
Died..	2,440	2,444	55	2,499
Executed	145	70	6	76
Remaining in Gaol on the 30th April .... }	19,399	18,375	646	19,021
Total......................	75,141	69,497	1,970	71,467

Particulars of Prisoners Admitted during the Two Years.	1858–59.	1859–60.
Committed to gaol by orders of the magisterial authorities	35,868	39,862
Committed to gaol by the civil, revenue, and excise authorities	1,807	1,353
Committed to gaol under sentence of courts-martial	140	223
Committed to gaol under special orders of the Government for reasons of State	23	178
Recaptured after escape	997	264
Transferred from one district to another for trial	968	1,624
Transferred from one district to another for banishment	2,226	914
Transferred from one district to another for transportation	1,701	988
Transferred from one district to another for benefit of health	15	442
Transferred from one district to another for release	219	361
Transferred from one district to another for special reasons	148	912
Transferred from one district to another after recapture	40	50
Transferred from subdivision lock-ups to Sudder Gaols	—	4,324
Kept in gaol while on the way from one district to another	588	573
Number confined in subdivision lock-ups	8,789	—
Total	53,529	52,068

The prisoners in the subdivision lock-ups were incorporated in the returns of the Sudder Gaols in 1859-60.

Particulars of the Transfers.	1858–59.	1859–60.
Transferred from one district to another for trial	2,165	1,061
Transferred from one district to another for banishment	902	780
Transferred from one district to another for transportation	2,261	1,693
Transferred from one district to another for benefit of health	53	84
Transferred from one district to another for release	354	620
Transferred from one district to another for special reasons	758	1,777
Transferred from one district to another after recapture	135	14
Transferred to lunatic asylums	191	106
Transferred from subdivision lock-ups to Sudder Gaols	4,181	5,982
Kept in gaol while in transit from one district to another	736	475
	11,736	12,601

The transfers for special reasons were chiefly to relieve over-

crowded and sickly prisons. The lunatics were not criminals, but insane persons picked up by the police, or sent by their relatives for safe custody to the gaol, pending their transfer, after due inquiry and under proper authority, to the nearest lunatic asylum.

Particulars of the Prisoners Released.	1858–58.	1859–60.
Acquitted after trial by the magisterial authorities	12,479	14,360
,, sessions judges	1,893	1,780
,, Sudder Court	239	159
Liberated by order of Government	141	163
Released on expiry of sentence	19,054	18,988
,, payment of debts, &c.	1,542	1,311
,, for good conduct	53	15
,, on account of extreme sickness	113	289
,, from subdivision lock-ups	4,460	—
Total	39,974	37,065

The convicts released on account of extreme sickness were short term misdemeanants, whose sentences had nearly expired, and whose only chance of life was in being removed from sickly prisons, in most of which virulent epidemics prevailed at the time. Many of them were in the last stage of phthisis or pulmonary consumption, and were suffering from that disease when imprisoned.

Disposal of the Prisoners (28,982) *convicted in the Year* 1859-60.

Criminals.	Males.	Females.	Totals.
Sentenced for life, with labour	812	38	851
,, ,, without labour	1	0	
,, more than two years, with labour	4,123	31	4,205
,, ,, without labour	50	1	
,, 2 years and above 1 year, with labour	2,291	35	2,716
,, ,, without labour	373	17	
,, 1 year and under, with labour	10,057	267	18,429
,, ,, without labour	7,957	148	
To be confined until security be given, with labour	273	2	408
,, ,, without labour	129	4	
To be discharged, without security, after a limited period, with labour	714	10	753
To be discharged, without security, after a limited period, without labour	28	1	
Total	26,808	554	27,362

Disposal of the Prisoners, &c.—Contd.

	Males.	Females.	Totals.
Civil Prisoners (including Debtors, Revenue Defaulters, &c.)			
Under 1 month's imprisonment.................................	944	22	966
Of 1 and under 2 months	275	—	275
„ 3 „ 6 „	58	1	59
„ 6 „ 12 „	38	—	38
Above 1 and less than 2 years	1	—	1
„ 2 „ 3 „	58	2	60
Above 3 years..	4	—	4
	1,378	25	1,403
State prisoners	22	—	22
Agency prisoners, S.W. Frontier	96	—	96
Gang Robbers.			
Committed by the commissioner for the suppression of Dacoity	97	2	99
Total convicted.................	28,401	581	28,982

To the English reader explanation is required of some of the points contained in the above enumeration. They are, however, connected with the judicial system of Bengal, and to discuss or detail them is foreign to the purpose of this paper.

IV.—*Bengal Prison Dietaries, past and present; their Nature and Cost.*

The diet of prisoners in the gaols of the Lower Provinces has long been a vexed question, and is not yet determined. Prior to 1836 a certain money allowance was furnished to each prisoner, with which he purchased the food he preferred from shopkeepers, who were allowed access to the gaols. This allowance varied in the lower provinces from about three-farthings to a penny and a half a-day, the average allowance being somewhat under a penny a head. The price of food was so low at the time that the criminals not only fared more sumptuously than agricultural labourers, but were able to save a portion of their allowance to remit to their families, to bribe their guards, or to form a purse for themselves when liberated. The disadvantages of such a system, and the superior efficacy of a regular plan of rations were pointed out by the Bengal Prison Discipline Committee of 1838. Accordingly the ration system was adopted, and a tentative scale was introduced, consisting of two

pounds of dry rice, a pound of wood for cooking, and a small quantity of tobacco, which were issued daily. This scale was allowed to be worked with a considerable margin, until experience should determine a fit standard. A portion of the rice was permitted to be exchanged for a suitable supply of condiments.

It was felt, even at this early period of inquiry into the matter, that in a country where honest labourers are compelled to live upon a coarse variety of food just sufficient to maintain health and strength, and very often even below that standard, the difficulty, amounting to impossibility, would be experienced, of so feeding a prisoner, to keep him in health, as that he should not fare better than the class to which he belonged in a state of freedom from crime.

The scheme proposed did not, however, work well, from being imperfectly understood, and not fully carried out. Accordingly, a few years later, in 1840, a further inquiry was instituted as to the extent to which the ration system had been introduced; the prisoners who were exempt from it, with the reasons of their exemption; the numbers who were messed together; the articles of food allowed; the extent to which the health of the prisoners had been affected by the measure; and the means by which the system could be improved.

The answers of the officers consulted showed that the ration system had very generally superseded the money allowances; that no prisoners were exempt from it; that the plan of messing had not been so generally introduced; and that on the whole the plan had worked well. A few simple rules were introduced to cause the plan to be worked with regularity, and to allow a small increase of food in such cases as were certified by the medical officer to require it. Arrangements were also made to vary the food, vegetables, fish, and meat being united with the rice on alternate days. The food was purchased by contract, and examined as to its wholesomeness by the medical officers in charge of the prisons.

Objections were raised, chiefly by the medical officers, to the sufficiency of the food for the maintenance of health, a large amount of prison disease being attributed to the dietary. In consequence of these objections, after consulting the Medical Board, in 1843, an increased scale of rations was adopted, and two cooked meals were allowed daily. The majority of the labouring population, and all indigent classes, have in Lower Bengal but one cooked meal daily, the morning meal usually consisting of dry, or cold food saved from the dinner of the previous day.

The new scale allowed 32 ounces of food daily to non-labouring convicts, and 45 ounces to convicts sentenced to labour. The dietary of the former was composed of 22 ounces of rice, 6 ounces of dhal, 2 ounces of fresh vegetables, half an ounce of clarified butter, 1 ounce of salt, and 1 ounce of condiments. The scale for working

convicts was the same in regard to salt and condiments, but granted a more liberal allowance of rice, a small increase of ghee or clarified butter, and on alternate days 8 ounces of fish or flesh, with every day 4 ounces of vegetables. On the fish and flesh days, the quantity of rice issued was 26 ounces; on the other days 28 ounces. Dhal was given to the extent of 6 ounces on the days when neither meat nor fish were allowed. Prisoners from the upper provinces were allowed wheaten flour instead of rice, and the amount of firewood was increased to 3 pounds weight daily. Tobacco was still continued

This scale was soon suspected to be too liberal, and the cost of food was so much increased by it, that inquiry was again set on foot to reduce all superfluities, and to fix a more moderate and appropriate scale. The result of the inquiry seemed to show that the convicts were much better fed than the free population of the same classes; that they could not consume the whole of the allowance, and bartered the excess for forbidden indulgences; and that the very liberal dietary neutralized much of the deterring effects of imprisonment by rendering the prison popular in times of distress, and thus acting as a premium to crime.

A new scale was adopted, reducing the food of non-labouring convicts to 31¼ ounces, and that of labouring convicts to 35¼ ounces.

This scale was introduced in 1851; it was intended to be tentative, and reports were directed to be sent in in three months, as to the results of the measures. These reports were all in favour of the new scale, which accordingly continued in use for some years, and is, in fact, still in use in the Lower Provinces. In 1857, however, a fresh inquiry was directed to be instituted, in consequence of the great mortality in some prisons, which was attributed by medical officers to the insufficiency of the food. Diarrhœa, dysentery, and scurvy were supposed to be the diseases so caused.

The preponderance of evidence collected by the last inquiry tended to show that the existing diet scale is in excess of that of the poorer classes who form the bulk of the prisoners; that, with very few exceptions, it closely assimilates to that of the outside labouring population; that in quality it is generally superior; that in several of the prisons it caused a higher standard of health than is enjoyed by the free population of the same classes; that in some of the gaols, the admissions and deaths from diseases associated with defective nutrition are so low, as to show that they could not have been influenced by the dietary; that in those gaols where diarrhœa and dysentery were most fatal and prevalent, other causes were in active operation that probably exerted more influence in the production of those zymotic diseases than the food; that the defects in the

dietary were rather in the absence of variety, than in the quantity or quality of the rations, and that any modifications which it might be deemed desirable to introduce should be in the direction above indicated.

Fifteen years were selected for the inquiry,—five during the existence of the money plan of purchase of food by the prisoners themselves,—five during the trial of the 32 and 45-ounce scale, and five during the present or 31½ and 35-ounce scale. The diseases investigated were dysentery, diarrhœa, scurvy, phthisis, and cholera, as those most likely to be influenced by the food.

In the first five years from 1839-43, the labour of the convicts was partly out-door and partly in-door. The average cubical space for each prisoner was 356 feet, and the food was purchased by the convicts from the money allowance. The average number in custody was 52,763. The admissions and deaths were as follow:—

	1 Admissions.	2 Deaths.	3 Ratio per Cent. to Strength.	4 Ratio per Cent. to Admissions.
Dysentery	6,872	1,070	2·02	15·57
Diarrhœa	6,359	671	1·27	10·55
Scurvy	160	2	0·003	1·25
Phthisis	62	34	0·06	54·83
Cholera	3,030	1,269	2·40	41·88

In the second, 1844-48, with labour as before, but the in-door work including various manufactures; the mean average of space 365 cubic feet, the Medical Board diet-scale, and the average number of prisoners, 70,041, the results were:—

	1 Admissions.	2 Deaths.	3 Ratio per Cent. to Strength.	4 Ratio per Cent. to Admissions.
Dysentery	9,060	1,425	2·03	15·72
Diarrhœa	6,896	704	0·86	8·75
Scurvy	310	15	0·02	4·83
Phthisis	352	108	0·15	30·68
Cholera	3,203	1,169	1·66	36·49

In the last lustrum, 1852-56, with similar labour, but a much larger proportion of convicts employed within the walls of the prison; 424 cubic feet of space; the diet scale now in use, and an average of 76,098, the results are subjoined:—

	1	2	3	4
	Admissions.	Deaths.	Ratio per Cent. to Strength.	Ratio per Cent. to Admissions.
Dysentery	12,417	1,868	2·45	15·04
Diarrhœa	8,801	668	0·87	7·59
Scurvy	639	24	0·03	3·75
Phthisis	513	167	0·21	32·55
Cholera	3,661	1,615	2·12	44·11

The mean average mortality of the three periods combined, was; from dysentery 2·19, diarrhœa 0·97, scurvy 0·02, phthisis 0·15, cholera 2·03 per cent. of average strength. The ratios per cent. of admissions to average strength from the diseases mentioned during the three periods respectively, were 31·25, 28·29, and 34·20.

Thus, although sickness had increased in the period of the present dietary, the mortality of that period was not in excess of the mean mortality of the whole fifteen years, and was very slightly in excess of that of the middle period. The difference is not such as can fairly be attributed to the dietary alone.

It is now generally admitted that the quantity and quality of food sufficient to maintain an artizan or an agricultural labourer in health when at liberty, do not maintain the same standard of health in the same individual in confinement.

On the other hand, while feeding above the standard procurable by the honest labourer is a premium upon crime, particularly in times of distress, diet ought not to be made an instrument of punishment to the detriment of health. The argument that a convict in gaol gets a larger amount of food, and daintier fare than an honest labourer of the same class, and that therefore the good living of the criminal is more a temptation than a discouragement to crime, is not in itself a valid reason for reducing the diet of offenders against the laws, if it can be proved that a larger amount and greater variety of food is absolutely required for the same man in confinement, than was adequate to maintain him in health when at large.

All disciplinarians admit that the amount of food to which a convict is entitled should be the minimum needed *to keep him in health and strength*. It is abundantly evident, that from circumstances which appear to be inseparable from incarceration in every part of the world, and in every variety of the human race which has been subjected to penal restraint, this amount is in excess of what is amply adequate to preserve the health and strength of the same classes and individuals in freedom.

The point to consider is not what the honest labourer can obtain

by well-directed industry, but what is essential for the convict. To reduce the health and strength of a criminal, and to restore him to society less physically able to earn a livelihood than when he entered the prison, formed no part of his original sentence, and is, therefore, in excess of the requirements of the law.

The chief defects of the Bengal dietary are its unvarying sameness, and its application to many different races for whom it is not suited from their previous habits. The natives of all districts above Patna are more or less accustomed to wheaten flour as the basis of their diet. The Garrows, Sontals, Coles, and Mughs, although habituated to a poorer and more precarious dietary than that of the prisons, are in the habit of consuming flesh to a much greater extent than is allowed in that dietary. The inhabitants of the eastern provinces, of the coast, and of all districts with an extended water shed, are used to the consumption of fish, often in an advanced state of putrefaction, yet, from early habit, consistent with a high standard of health.

The climatic and endemic influences of the different tracts of country embraced in the extended area subject to the Government of Bengal, are very considerable, and can by no means be safely disregarded in framing a prison dietary that shall be suitable to all. The ethnological differences of the various races who are inmates of the prisons under my charge, are greater than those of the different nations of Europe. The Mugh, the Bengali, and the Garrow, differ as much from each other, and from the Behari and the Seikh, as the Spaniard and the Italian differ from the Englishman.

To construct a dietary that should meet all these different characters, without losing sight of the primary object of imprisonment, was therefore a matter of very considerable difficulty. Again, although the scientific inquiries which have lately been conducted on the subject of food have thrown much light upon it, the essential conditions and proportions of a healthy and wholesome dietary, to meet the varying conditions of life, have not yet been determined. Dr. Christison, a deservedly esteemed authority upon the subject, has stated, that "experience has shown that the most successful dietaries " for bodies of men, deduced from practical observations, contain car- " boniferous and nitrogenous food in the proportion of about three of " the former to one of the latter, by weight." The results of twenty-two years' experience of this eminent and cautious practical observer, had not produced a single exception to this rule. Dr. Christison fixed on 28 ounces of food, of which seven are nitrogenous, as the most suitable standard for the maintenance of health under continuous exertion.

The very valuable researches of Dr. Forbes Watson on the chemical composition and dietetic value of the food grains of India,

have enabled me to construct new diet tables upon the principles above enunciated. These tables are at present under consideration.

Since they were drawn up I have become acquainted with the excellent reports of Dr. E. Smith and Mr. Milner on various points connected with the health of prisoners in England, which show that from the prison dietaries at home a considerable amount of unnecessary and injurious waste of vital power occur, that are deserving of the most serious attention. I quite concur with those gentlemen in thinking that the time has now arrived for a careful reconsideration of the whole question, and that our prisons at home and abroad afford an unrivalled field for the proper prosecution of such an inquiry. It has a most important bearing on the health and happiness of the labouring classes generally, irrespective of its interest as regards the prisoners under punishment.

With respect to the convicts in the prisons of the Lower Provinces of the Bengal Presidency, I am of opinion that the simplest and safest plan will be to fix a minimum scale of quantity, founded upon the rules laid down by Dr. Christison, and within that scale to vary the quality and variety of the rations issued in strict accordance with the ordinary habits of the labouring population of the district. Those who are idle need a smaller amount of food to repair waste and wear and tear than those who are sentenced to labour; the scale for labouring should, therefore, be higher than that for non-labouring convicts.

The following are the four different diet scales that I have suggested:—

1. *For Bengalees, Assamese, and the People of Orissa.*—Rice feeders. *For non-labourers.*—30 ounces daily, consisting of 18 ounces of rice, 6 ounces of dhal, 4 ounces of fresh vegetables, with 2 ounces daily of salt, oil, and condiments in equal parts, on Mondays, Wednesdays, Fridays, and Sundays; and on the remaining days, 18 ounces of rice, 2 ounces of dhal, and 8 ounces of fresh vegetables, with the same allowance of salt, oil, and condiments.

For Labouring Convicts.—34 ounces of food daily, viz., on the first three days above-mentioned, 20 ounces of rice, 4 ounces of dhal, 4 ounces of vegetables, and 4 ounces of fish or flesh (mutton and beef) with 2 ounces of salt, oil, and condiments. On Tuesdays, Thursdays, and Saturdays, 20 ounces of rice, 4 ounces of dhal, and 8 ounces of fresh vegetables, with the same allowance of oil, salt, and condiments. On Sundays all classes receive non-labouring rations, it being a day of rest.

2. *For Natives of Behar, the N.W. Provinces, and the Punjab.*—These are chiefly consumers of wheaten flour, but in Behar, and wherever it is procurable, rice also is eaten, to a smaller extent.

Non-labouring Scale.—30 ounces of food. On Mondays, Wednesdays, Fridays, and Sundays, 8 ounces of wheaten flour, 10 ounces of rice, 4 ounces of dhal, and 6 ounces of fresh vegetables, with 2 ounces of salt, oil, and condiments. On Tuesdays, Thursdays, and Saturdays, 8 ounces of flour, 10 ounces of rice, 6 ounces of dhal, and 4 ounces of fresh vegetables, with the same amount of salt, oil, and condiments.

Labouring Scale.—34 ounces of food. On Mondays, Wednesdays, and Fridays, 10 ounces of wheaten flour, 12 ounces of rice, 2 ounces of dhal, 4 ounces of fresh vegetables, and 4 ounces of fish or flesh, with the same amount of salt, oil, and condiments. On the other days of the week, 10 ounces of flour, 12 ounces of rice, 6 ounces of dhal, and 4 ounces of vegetables, with the same allowance of salt, oil, and condiments. On Sundays the working prisoners receive non-labouring rations. The flour is made up into unleavened cakes.

3. *For Coles, Southals, Garrows, and Hill Tribes generally.*—These people are omnivorous, scantily clothed, live much exposed to all weathers, and enjoy a precarious supply of food, as compared with those mentioned in scales Nos. 1 and 2.

Non-labouring Scale.—30 ounces of food; consisting on Mondays, Wednesdays, Fridays, and Sundays, of 20 ounces of rice, 4 ounces of vegetables, 4 ounces of fish or flesh, and 2 ounces of salt, oil, and condiments, in equal parts, or one-third of an ounce of each for each meal. On the other days, 18 ounces of rice, 10 ounces of fresh vegetables, and the same allowance of salt, oil, and condiments.

Labouring Scale.—34 ounces of food, viz., on three days of the week, 20 ounces of rice, 8 ounces of vegetables, 4 ounces of fish or flesh, and the same allowance as above of oil, salt, and condiments. On the three other week days, 20 ounces of rice, 10 ounces of vegetables, 2 ounces of fish or flesh, and the usual amount of salt, oil, and condiments. On Sundays, non-labouring rations.

4. *For Chinamen, Burmese, and Mughs.*—All omnivorous, and accustomed to a more ample dietary than the above. Rice forms still the bulk of their food.

Non-labouring Scale.—30¼ ounces of food; consisting on all days of 22 ounces of rice, 4 ounces of vegetables, 4 ounces of fish or flesh, an ounce of a condiment called gnapee, and an ounce and a-half of salt and ordinary condiments.

Labouring Scale.—34 ounces and a-half of food, viz., on Mondays, Wednesdays, and Fridays, 24 ounces of rice, 4 ounces of vegetables, 4 ounces of fish or flesh, an ounce of gnapee, and an ounce and a-half of salt and condiments. On the three other week days, 24 ounces of rice, 6 ounces of vegetables, 2 ounces of fish or flesh, and the same amount of gnapee and condiments. On Sundays all receive non-

labouring rations. Gnapee is a Burmese luxury, of which the basis is fish in an advanced state of decomposition, mixed up with spices of different sorts.

In all the scales above-mentioned, the amount of vegetables is free of all refuse, and the meat without bones. The proportion of heat givers and flesh formers is not in exact conformity with the proportions fixed by Dr. Christison, as the convicts in Bengal are not subject to the same amount of wear and tear and exposure as the British soldier in the field, for whom Christison's scale was adopted.

V.—*Sickness and Mortality of Prisoners in the Lower Provinces.*

The prisons of the Lower Provinces of the Bengal Presidency seem to have been unhealthy from their very origin. The early records of sickness and mortality are incomplete and imperfect in many important particulars, but, such as they are, the average of deaths to strength, as stated by them, appear never to have been less than 6 per cent., or 60 per 1,000.

In the Bengal Prison Discipline Report, published in 1838, it is stated that, " excepting in the western districts of Bengal, the mor- " tality of prisoners under the Bengal and Bombay Governments is " not greater than we should have anticipated, considering that they " belong either to the poorest and worst fed, or to the most dissi- " pated classes of the people." The average mortality in the last four years has been in the Lower Provinces 8·33 per cent.; viz. :—

	Strength.	Deaths.	Ratio.
1833............	19,420	1,864	9·06
'34............	20,008	1,684	8·42
'35............	18,720	1,367	7·30
'36............	22,368	1,796	8·03
Total....	80,516	6,711	—
Average....	20,129	1,678	8·33

Note.—Of the deaths referred to 6·61 per cent. were from ordinary diseases, and 1·72 per cent. from cholera."

The highest continuous mortality in those years was at Sheerghottee, where it ranged for the four years at 26·20, 25·95, 25·, and 234·90. The station was accordingly abolished, and the gaol abandoned. The mortality that most nearly approached the ratios above-mentioned, was in a gang of prisoners employed on the Benares Road, when 167 died out of an average of 189, or 87·09 per cent. In both of the instances above-mentioned, the excessive mortality was doubtless due

to the employment of the convicts in clearing away jungle for the formation of the Grand Trunk Road. Frightful mortality, from the same cause, occurred in subsequent years among gangs of free labourers on the Racpore Road, and on the road unsuccessfully attempted to be cut from Chittagong to Akyab, in Eastern Bengal.

A mortality not very far removed from the above occurred in the two first years of the recent occupation of Port Blair, in the Anda- mem Islands, from similar causes. The clearing of primeval forests in the tropics is always a dangerous proceeding, and is invariably attended with great loss of life to the pioneers in such work.

The highest mortality of recent years in Bengal happened at Akyab in 1858, where, of an average of 384 prisoners, 301 died, or in the proportion of 78·38 per cent. The primary cause of this fearful loss of life was the employment of the convicts to build a sea-wall in a salt marsh. Independent of this, the year 1858 was the most sickly of the last quarter of a century in Bengal. Fatal epidemics of cholera and fever traversed the length and breadth of the land in that year.

The mortality in Lower Bengal for the ten years preceding 1859 was as follows :—

	Ratio of Deaths from Cholera.	Ratio of Deaths from Ordinary Diseases.	Total.
1849................	1·37	4·51	5·88
'50................	0·77	4·19	4·96
'51................	1·26	4·26	5·52
'52................	2·48	5·71	8·19
'53................	2·31	7·16	9·47
'54................	1·02	5·12	6·14
'55................	1·71	6·83	8·54
'56................	1·89	7·65	9·54
'57................	2·21	9·88	12·09
'58................	1·77	11·75	13·52
Average of the 10 years	1·68	6·70	8·38
1859................	1·75	9·07	10·82

Showing an increase in 1859 over the decennial mortality of 0·07 per cent. from cholera, and of 2·37 from ordinary diseases; but a consider- able decrease of mortality, as compared with the two preceding years.

In 1860, the ratio of deaths rose again to 13·37. In that year the

average number of prisoners in custody was 18,214, the number of deaths 2,347, as follows, viz.:—

From Cholera	729	or	4·00	per cent.
„ Dysentery	803	„	4·40	„
„ Diarrhœa	281	„	1·54	„
„ Fever	96	„	0·52	„
„ Phthisis	99	„	0·54	„
„ Other diseases	274	„	2·05	„
„ Accidental deaths	64	„	0·29	„
„ Suicidal	1	„	0·01	„
	2,347		13·37	

being in excess, that of the previous annual and decennial rates.

The increase in this year was due entirely to cholera and dysentery, the latter in very many cases a sequela of the former.

In 1859 the deaths were arranged for the first time, according to the classification of the Registrar-General of England. I attempted to introduce this form into Bengal five years previously, but it was overruled by the medical authorities of that time, who objected to change the system then in use. The purely medical concerns of the prisons of Bengal are not under my charge; I have in consequence been unable to introduce many other changes that are necessary to render the returns accurate and trustworthy for statistical and other purposes. In 1857, I drew up special and detailed instructions on the subject, by the adoption of which much light would have been rapidly thrown on this important branch of prison economy. They were not adopted for the same reason that caused the rejection of the forms of the Registrar-General.

An abstract of the strength of prisoners, and the ratio of deaths from cholera and from ordinary diseases in each of the fifty-four gaols of the Lower Provinces, is subjoined for the ten years ending in March, 1859.

	Strength of Prisoners.	From Ordinary Diseases.	From Cholera.	Total.
Patna	6065	5·04	1·40	6·44
Sarun	4802$\frac{5}{13}$	6·56	1·56	7·97
Behar	5761$\frac{11}{13}$	10·35	1·23	11·58
Shahabad	4795$\frac{1}{2}$	5·76	1·60	7·36
Chumparun	2720$\frac{3}{4}$	8·27	1·47	9·74
Tirhoot	4798	7·06	1·65	8·71
Bhaugulpore	4627	14·41	8·77	23·18
Monghyr	6531$\frac{1}{2}$	10·52	2·12	12·64
Purneah	4367$\frac{1}{2}$	6·14	4·72	10·74
Rajshahye	6226	7·26	3·51	10·77

	Strength of Prisoners.	Ratio of Deaths from Ordinary Diseases.	Ratio of Deaths from Cholera.	Total.
Pubna	2066	5·08	0·82	5·90
Rungpore	4278	13·23	0·84	14·07
Bograh	1722	6·44	1·16	7·60
Dinagepore	6858	9·69	1·46	11·15
Maldah	1015	4·82	2·46	7·28
Moorshedabad	3530	8·35	2·58	10·93
Dacca	7223	3·88	0·58	4·46
Furreedpore	4015	2·66	0·25	2·91
Sylhet	4989$\frac{7}{12}$	5·05	1·20	6·25
Mymensing	4658	6·22	0·54	6·76
Backergunge	5636	5·59	2·62	8·21
Chittagong	2861	4·72	1·40	6·12
Tipperah	4514	4·23	1·48	5·71
Noakholly	2810	2·21	0·53	2·74
Nuddeah	4493	3·34	0·04	3·38
Alipore	10953	12·48	1·26	13·74
Baraset	2434	4·95	0·50	4·89
Jessore	6247	4·22	1·04	5·26
Burdwan	5203	5·96	2·07	8·03
Hooghly	5646	10·56	3·49	14·05
Howrah	968	6·40	0·21	6·61
Bancoorah	4131	3·87	1·07	4·94
Beerbhoom	3702	6·15	0·73	6·88
Midnapore	6821	5·88	2·01	7·89
Cuttack	2620	6·34	0·95	7·29
Balasore	1434	2·79	1·32	4·11
Pooree	1020	3·72	0·88	4·60
Hazareebaugh	6726	5·85	0·91	6·76
Lohardugga	2172	7·92	0·55	8·47
Maunbhoom	2449	5·18	4·94	10·12
Singbhoom	1537	5·66	4·62	10·28
Sumbulpore	1159	13·02	1·82	14·84
Akyab	3279	13·60	2·04	15·64
Ramree	3723	8·51	0·46	8·97
Sandoway	1941	8·55	0·16	8·71
Gowalparah	1421	9·01	2·53	11·54
Kamroop	1678	6·61	2·68	9·29
Nowgong	1081$\frac{9}{12}$	3·42	2·31	5·73
Seebsaugor	1179$\frac{11}{12}$	7·12	0·51	7·63
Durrung	1688$\frac{11}{12}$	3·55	1·30	4·85
Debrooghur	611$\frac{7}{12}$	4·25	0·33	4·58
Kassiah Hills	457	5·25	0·	5·25
Cachar	479	1·25	2·30	3·55
Darjeeling	327	11·31	0·	11·31

In the accompanying tabular statement, I have attempted to arrange the prisons under my charge in the order of their healthiness during the year 1859, and have shown also the mortality of that year, as compared with the decennial period immediately preceding it :—

Names of Gaols	Daily Average Strength	Deaths Ordinary Diseases	Deaths Cholera	Deaths Total	Ratio 1859 By Ordinary Diseases	Ratio 1859 By Cholera	Ratio 1859 Total	Decennial Ratio By Ordinary Diseases	Decennial Ratio By Cholera	Decennial Ratio Total	Diff. Ord. Incr.	Diff. Ord. Decr.	Diff. Chol. Incr.	Diff. Chol. Decr.	Diff. Total Incr.	Diff. Total Decr.
1. Jessore	503	5	0	5	0.99	0.00	0.99	4.32	1.25	5.57	—	3.33	—	1.25	—	4.58
2. Baraset	265	3	0	3	1.13	0.00	1.13	4.83	0.45	5.28	—	3.70	—	0.45	—	4.15
3. Nuddeah	374	5	1	6	1.34	0.26	1.60	3.40	0.07	3.47	—	2.06	0.19	—	—	1.87
4. Noakholly	319	6	2	8	1.87	0.63	2.50	2.20	0.45	2.65	—	0.33	0.18	—	—	0.15
5. Tipperah	445	13	0	13	2.92	0.00	2.92	5.03	1.61	6.64	—	2.11	—	1.61	—	3.72
6. Balasore	93	2	1	3	2.15	1.07	3.22	2.90	1.25	4.15	—	0.75	—	0.18	—	0.93
7. Hazareebaugh	348	12	0	12	3.44	0.00	3.44	6.51	0.77	7.28	—	3.07	—	0.77	—	3.84
8. Pubna	170	5	1	6	2.94	0.59	3.53	4.53	0.82	5.35	—	1.59	—	0.23	—	1.82
9. Furreedpore	395	14	2	16	3.54	0.51	4.05	2.47	0.26	2.73	1.07	—	0.25	—	1.32	—
10. Maldah	48	2	0	2	4.16	0.00	4.16	4.84	1.70	6.54	—	0.68	—	1.70	—	2.38
11. Pooree	109	4	1	5	3.67	0.92	4.59	3.40	1.21	4.61	0.27	—	—	0.29	—	0.02
12. Dacca	694	33	5	38	4.75	0.72	5.47	3.77	0.59	4.36	0.98	—	0.13	—	1.11	—
13. Mymensing	505	28	0	28	5.54	0.00	5.54	5.88	0.54	6.42	—	0.34	—	0.54	—	0.88
14. Midnapore	773	43	0	43	5.56	0.00	5.56	5.42	2.40	7.82	0.14	—	—	2.40	—	2.26
15. Bancoorah	483	26	3	29	5.38	0.63	6.00	3.79	1.34	5.13	1.59	—	—	0.72	0.87	—
16. Seebsaugor	112	7	0	7	6.25	0.00	6.25	7.68	0.50	8.18	—	1.43	—	0.50	—	1.93
17. Beerbhoom	413	26	0	26	6.29	0.00	6.29	5.95	1.26	7.21	0.34	—	—	1.26	—	0.92
18. Durrung	166	11	0	11	6.62	0.00	6.62	3.23	1.05	4.28	3.39	—	—	1.05	2.34	—
19. Sylhet	386	25	1	26	6.47	0.26	6.73	4.79	1.87	6.66	1.68	—	—	1.61	0.07	—
20. Nowgong	73	0	5	5	0.00	6.84	6.84	8.16	4.18	12.34	—	8.16	2.66	—	—	5.50
21. Moorshedabad	174	12	0	12	6.89	0.00	6.89	6.44	0.65	7.09	0.45	—	—	0.65	—	0.20
22. Bograh	169	10	2	12	5.92	1.18	7.10	6.78	2.57	9.35	—	0.86	—	1.39	—	2.25
23. Kamroop	162	11	1	12	6.78	0.62	7.40	—	—	—	—	—	—	—	—	—
24. Maunbhoom	395	19	11	30	4.81	2.78	7.59	4.54	6.92	11.46	0.27	—	—	4.14	—	3.87
25. Cachar	78	0	6	6	0.00	7.69	7.69	1.50	1.86	3.36	—	1.50	5.83	—	4.33	—
26. Kassiah Hills	38	3	0	3	7.89	0.00	7.89	5.50	0.83	6.33	2.39	—	—	0.83	1.56	—
27. Cuttack	288	19	6	25	6.60	2.08	8.68	6.23	0.86	7.09	0.37	—	1.22	—	1.59	—
28. Patna	751	40	28	68	5.32	3.73	9.05	4.77	1.04	5.81	0.55	—	2.69	—	3.24	—
29. Backergunge	517	41	9	50	7.50	1.64	9.14	5.28	2.44	7.72	2.22	—	—	0.80	1.42	—
30. Tirhoot	400	32	5	37	8.00	1.25	9.25	7.00	2.23	9.23	0.99	—	—	0.98	0.02	—
31. Shahabad	288	26	4	30	9.02	1.39	10.41	6.53	1.18	7.71	2.49	—	0.21	—	2.70	—
32. Chittagong	249	28	0	28	11.24	0.00	11.24	4.43	1.55	5.98	6.81	—	—	1.55	5.26	—
33. Hooghly	922	90	16	106	9.76	1.73	11.49	9.45	3.59	13.04	0.31	—	—	1.86	—	1.55
34. Chumparun	233	26	1	27	11.15	0.43	11.58	7.57	1.32	8.89	3.58	—	—	0.89	2.69	—
35. Howrah*	69	8	0	8	11.59	0.00	11.59	3.89	0.11	4.00	7.70	—	—	0.11	7.59	—
36. Sandoway	241	29	0	29	12.03	0.00	12.03	8.74	0.17	8.91	3.29	—	—	0.17	3.12	—
37. Debrooghur	91	11	0	11	12.08	0.00	12.08	3.09	0.29	3.38	8.99	—	—	0.29	8.70	—
38. Sumbulpore*	161	20	0	20	12.42	0.00	12.42	7.04	2.00	9.04	5.38	—	—	2.00	3.38	—
39. Rajshahye	534	59	15	74	11.04	2.81	13.85	6.50	3.52	10.02	4.54	—	—	0.71	3.83	—
40. Monghyr	456	46	18	64	10.09	3.94	14.03	9.58	1.89	11.47	0.51	—	2.05	—	2.56	—
41. Singbhoom	155	19	3	22	12.25	1.94	14.19	4.70	3.53	8.23	7.55	—	—	1.59	5.96	—
42. Sarun	333	39	11	50	11.71	3.30	15.01	5.86	1.27	7.13	5.85	—	2.03	—	7.88	—
43. Gowalparah	113	9	8	17	7.96	7.08	15.04	8.55	2.02	10.57	—	0.59	5.06	—	4.47	—
44. Lohardugga	314	44	5	49	14.01	1.59	15.60	6.71	0.31	7.02	7.30	—	1.28	—	8.58	—
45. Ramree	376	56	3	59	14.89	0.80	15.69	7.17	0.49	7.66	7.72	—	0.31	—	8.03	—
46. Dinagepore	735	116	4	120	15.78	0.54	16.32	7.74	1.46	9.20	8.04	—	—	0.92	7.12	—
47. Alipore	1856	274	30	304	14.76	1.61	16.37	10.40	0.81	11.21	4.36	—	0.80	—	5.16	—
48. Behar	549	91	1	92	16.57	0.18	16.75	10.05	1.33	11.38	6.52	—	—	1.15	5.37	—
49. Burdwan	654	74	36	110	12.84	3.97	16.81	5.01	1.70	6.71	7.83	—	2.27	—	10.10	—
50. Bhaugulpore	487	47	39	86	9.64	8.01	17.65	14.30	8.29	22.59	—	4.66	—	0.28	—	4.94
51. Darjeeling†	45	9	0	9	20.00	0.00	20.00	6.93	0.00	6.93	13.07	—	—	—	13.07	—
52. Rungpore	374	66	9	75	17.64	2.41	20.05	12.52	0.72	13.24	5.12	—	1.69	—	6.81	—
53. Akyab	306	64	4	68	20.91	1.31	22.22	11.35	2.28	13.63	9.56	—	—	0.97	8.59	—
54. Purneah	329	56	55	111	17.02	16.71	33.73	5.28	3.26	8.54	11.74	—	13.45	—	25.19	—

Table headings: "Mortality in 1859" (Daily Average Strength; Deaths from Ordinary Diseases, Cholera, Total; Ratio of Deaths By Ordinary Diseases, By Cholera, Total). "Average Mortality during the Ten Years preceding 1859" (Ratio of Deaths By Ordinary Diseases, By Cholera, Total). "Difference between 1859 and the previous Decennial Average" (In Ratio of Mortality by Ordinary Diseases; In Ratio of Mortality by Cholera; In Total Ratio of Mortality — Increase / Decrease).

* The averages of these Gaols have been given for only seven years, they having been established in 1852.
† Ditto   ditto   it having come under the Bengal Government in 1852.

From the above it will be perceived, that with the same diet and labour, and as much uniformity as could be ensured in the system of prison discipline, the mortality varied from a fraction less than 1 per cent. at Jessore, to 33·73 per cent. at Purneah. In the latter prison the mortality was exceptional, and no less than 25·19 per cent. in excess of the previous decennial rate. The first-mentioned prison was for many years one of the most unhealthy in Bengal.

In the subjoined table are shown the deaths from the causes mentioned during the several months of the years 1858, and 1859. The influence of season on sickness and mortality has not yet been properly investigated in India. It is one of very considerable importance, and it is to be hoped will hereafter receive the attention it merits and requires.

Months	Daily Average Strength of Prisoners in each Month in 1858	Daily Average Strength of Prisoners in each Month in 1859	Dysentery 1858 Deaths	Dysentery 1858 Ratio to Avg. Strength	Dysentery 1859 Deaths	Dysentery 1859 Ratio	Diarrhœa 1858 Deaths	Diarrhœa 1858 Ratio	Diarrhœa 1859 Deaths	Diarrhœa 1859 Ratio	Cholera 1858 Deaths	Cholera 1858 Ratio	Cholera 1859 Deaths	Cholera 1859 Ratio	Phthisis 1858 Deaths	Phthisis 1858 Ratio	Phthisis 1859 Deaths	Phthisis 1859 Ratio
January	20,072	19,435	67	0.34	39	0.20	22	0.11	19	0.10	13	0.06	5	0.02	—	—	10	0.05
February	20,434	19,269	78	0.39	28	0.15	25	0.12	20	0.10	2	0.001	7	0.03	—	—	9	0.05
March	20,681	19,318	39	0.19	33	0.17	35	0.17	16	0.08	91	0.44	16	0.08	—	—	7	0.04
April	21,183	19,511	64	0.30	58	0.30	35	0.17	27	0.14	95	0.45	30	0.15	—	—	23	0.12
May	21,251	19,506	94	0.44	41	0.21	42	0.20	21	0.11	24	0.11	55	0.28	—	—	11	0.06
June	21,476	19,792	100	0.46	52	0.26	51	0.24	26	0.13	60	0.28	24	0.12	—	—	9	0.05
July	21,686	19,838	108	0.50	51	0.26	34	0.16	16	0.08	27	0.12	45	0.23	—	—	6	0.03
August	20,595	19,786	100	0.48	64	0.32	32	0.15	28	0.14	17	0.08	17	0.09	—	—	3	0.03
September	20,765	19,494	124	0.60	82	0.42	39	0.18	42	0.21	4	0.02	10	0.05	—	—	7	0.03
October	20,599	17,319	109	0.53	80	0.47	30	0.14	41	0.24	8	0.04	35	0.20	—	—	18	0.10
November	19,989	20,934	99	0.50	93	0.44	40	0.20	54	0.26	21	0.10	63	0.30	—	—	19	0.09
December	19,587	20,450	66	0.34	119	0.58	35	0.18	32	0.16	4	0.02	35	0.17	—	—	0	0.04
Total	248,567	234,552	1,048	0.42	739	0.32	420	0.17	342	0.15	336	0.15	342	0.15	—	—	131	0.05
Mean Average	20,714	19,546	—	5.06	—	3.78	—	2.03	—	1.75	—	1.77	—	1.75	—	—	—	0.67

Table heading: "Deaths from" — Dysentery, Diarrhœa, Cholera, Phthisis, each sub-divided "In 1858" and "In 1859" with Deaths and Ratio of Deaths to Average Strength.

Months	Deaths from												Total				Remarks
	Fever				All other diseases				Other causes				In 1858		In 1859		
	In 1858		In 1859		In 1858		In 1859		In 1858		In 1859						
	Deaths	Ratio	Deaths	Ratio	Deaths	Ratio	Deaths	Ratio	Deaths	Ratio	Deaths	Ratio	Deaths	Ratio	Deaths	Ratio	
January	—	—	6	0·03	77	0·38	31	0·16	—	—	1	0·01	179	0·89	111	0·57	
February	—	—	8	0·04	60	0·29	17	0·09	—	—	2	0·01	165	0·81	91	0·47	
March	—	—	7	0·04	83	0·40	25	0·13	—	—	2	0·01	248	1·20	106	0·55	
April	—	—	15	0·08	79	0·37	30	0·15	—	—	5	0·02	273	1·29	188	0·96	
May	—	—	11	0·06	71	0·33	33	0·17	—	—	5	0·02	231	1·08	177	0·91	
June	—	—	3	0·01	76	0·35	37	0·19	—	—	4	0·02	287	1·33	155	0·78	
July	—	—	6	0·03	70	0·32	14	0·07	—	—	3	0·01	239	1·10	140	0·71	
August	—	—	10	0·05	88	0·42	30	0·15	—	—	2	0·01	237	1·13	154	0·78	
September	—	—	13	0·07	85	0·41	27	0·14	—	—	1	0·01	252	1·21	183	0·93	
October	—	—	12	0·07	103	0·50	41	0·24	—	—	2	0·01	250	1·21	229	1·33	
November	—	—	18	0·08	104	0·52	65	0·31	—	—	4	0·02	264	1·33	315	1·50	
December	—	—	12	0·06	70	0·35	60	0·29	—	—	0	0·00	175	0·89	267	1·30	
Total	—	—	121	0·05	966	0·39	410	0·17	—	—	31	0·01	2,800	1·13	2,116	0·90	
Mean Average	—	—	—	0·62	—	4·66	—	2·10	—	—	—	0·15	—	13·52	—	10·83	

Remarks: In 1858 the monthly deaths under the heads of phthisis fever, and other causes, were not ascertained, they were included under head of "all other diseases," hence no comparison can as respects them be made with the results shown this year.

No exact inferences can be deduced from so short a period of time.

My returns are not yet sufficiently exact, from causes beyond my control, to afford definite information upon many points necessary to explain the exact causes of the great sickness and mortality above referred to.

The following brief abstract of the results already obtained, since the prisons were placed under my charge, are not without interest.

As respects the length of time those who died were in prison prior to their decease, there were in—

	1854-55.	1855-56.	1856.	1857.	1858.	1859.	Total.
3 months and under	211	529	394	526	776	426	2,862
6 months and above 3 months	165	228	296	306	508	255	1,758
1 year, and above 6 months	225	365	312	370	550	368	2,190
2 years and above 1 year	205	291	280	379	308	484	1,947
2 ,, and upwards	447	606	551	478	320	385	3,322
Life Prisoners	—	—	—	61*	338	198	67
Total	1,253	2,019	1,838	2,120	2,800	2,116	—

* In sixty-one cases the length of time the deceased prisoners had been in confinement could not be ascertained, on account of the destruction of records by mutineers. It is not certain that they were all life convicts.

Thus, in 12,146 deaths which occurred in six years, 2,862, or more than one-fifth, had been less than three months in prison, and 6,710, or more than one-half, had not been more than a year in confinement. The greater number of these were in all probability more or less sickly at the time of their conviction. The early records are entirely deficient in this, as on nearly every other point necessary to explain the cause of some portion of the prevalent sickness and mortality. Even now, the information furnished is by no means so detailed and precise as it ought to be.

A few examples, selected from the record of 1859, will, however, show the great amount of influence due to this cause.

Of 720 prisoners admitted to the Patna gaol, 205 were in bad health, 79 in impaired health, and 88 were feeble and infirm from old age and other causes. At Sarun, one-tenth of the whole number of casualties was in prisoners under trial, all of whom laboured under mortal diseases when arrested. At Behar, 44 prisoners were unhealthy, 161 old and infirm, and 26 actually sick when admitted. Of the 23 deaths among those imprisoned in that year, 6 only were from the healthy on admission. At Chumparun, 84 sickly prisoners were admitted; at Behar, 38 were old, infirm, weak, and emaciated; at Monghyr, 126 were sickly and debilitated; at Furreedpore, 12¼ per cent. were sickly, or nearly worn out by old age and natural decay; at Sylhet, 495 were in bad health, and half of them labouring under scurvy; at Mymensing, 494 were more or less sickly and diseased; at Chittagong, 8 per cent. of the casualties occurred among convicts incarcerated in advanced stages of organic disease; at Nuddeah, 124 were old, debilitated, or actually suffering from disease; at Alipore, of 303 deaths, 199 were among prisoners

recently admitted, and sickly at the time; at Howrah, of 8 deaths, 7 were in aged life convicts, some of whom had been more than half a century in confinement, the eighth was also an aged man, who died before he was tried, almost immediately after his arrest; at Beerbhoom, 20 were diseased when convicted; at Singbhoom, 2 entered the prison in a dying state, and died very shortly afterwards of the prison in a dying state, and died very shortly afterwards of dysentery; at Gowalparah, many of the prisoners on admission were miserable objects, quite unfitted to undergo imprisonment; at Cachar, 25 per cent. were admitted in bad health, and in several other prisons a majority of the convictions were reported to have been sickly, without a statement of the actual diseases under which they laboured. The returns generally do not show the exact ratio of deaths to the number admitted in a diseased state. This defect might easily be remedied by a more exact system of medical returns.

With respect to the term of sentence of those who died, returns were only submitted in 1858, and the following are the results as regards that year and 1859. The returns of 1860 are not yet in my possession.

	1858.	1859.
Under 1 year	431	157
From 1 to 2 years	240	282
„ 2 „ 3 „	320	169
„ 3 „ 4 „	41	321
„ 4 „ 5 „	185	34
„ 5 „ 6 „	22	175
„ 6 „ 7 „	416	9
„ 7 „ 8 „	19	246
„ 8 „ 9 „	27	20
„ 9 „ 10 „	125	19
„ 10 „ 26 „	306	278
Life convicts	338	198
Prisoners under trial	259	186
Civil Prisoners (debtors and revenue defaulters)	19	22
Not specified	52	—

The exact ratio of casualties to admissions of each class is not at present contained in the returns. The imperfect information afforded by the enumeration, however, shows that a large proportion of the deaths occur very shortly after conviction; that a considerable proportion are untried at the time of death; and that the life convicts, whose career must end in confinement, furnish a fair quota of the casualties.

With reference to crime, there died in the two years mentioned—

	1858.	1859.
Thieves	391	461
Gang robbers	641	357
Murderers	199	186
Burglars	174	117
Mutineers	43	101

The classes that suffer most from imprisonment in Bengal are agricultural labourers and servants. Hindoos are much more sickly than Mahommedans, and of the former the higher castes die in greatest numbers. Women are much more healthy in prison than men—probably from their more secluded lives in their own homes.

With respect to age, there died in 1858 and the following year,—

	1858.	1859.
Under 25 years	88	100
25 to 30 „	298	203
30 „ 35 „	253	243
35 „ 40 „	425	305
40 „ 45 „	189	180
45 „ 50 „	261	161
50 „ 60 „ and above	177	106

Every care is taken to ascertain the ages of the prisoners as exactly as possible, but as very few natives of India know the date of their births, and as most of their own calculations are for lunar months, little confidence can be placed in any existing records on the subject.

Natives of India are known to bear transplantation very badly, and to suffer much more severely from sickness in districts and provinces foreign to them, than in those of their nativity.

A large proportion, in fact nearly all persons convicted of felonies and heinous offences are sentenced to what is termed banishment, or transfer to the prisons of districts foreign to them. It has long been suspected, that much sickness and mortality are due to this cause, but as on every other point of real importance, the medical records do not show the exact amount of influence exercised on health by banishment.

In the years under-mentioned, the deaths of prisoners confined in their own districts, and of those who died in other districts, are enumerated :—

	1854-55.	1855-56.	1856-57.	1858.	1859.
Of district	1,616	1,341	1,142	1,351	1,157
Of other districts	403	497	978	1,449	969

As the returns do not show the exact ratio of deaths to convictions of each class, this record does not throw much light upon the question. The number of misdemeanants sentenced to short terms of imprisonment in their own zillahs or counties, is, however, very greatly in excess of those convicted of graver crimes, and transferred to distant prisons; the probability therefore is, that the suspicion is correct. There is no doubt, with regard to natives at liberty, that Bengal is unhealthy to up-country men and Punjabees, and that Bengalees are themselves sickly in Aracan and Burmah. This is particularly the case with sepoys from Hindustan, who are nearly as sickly as Europeans in the provinces last-named.

The question is therefore deserving of more careful attention than it has heretofore received.

From tables compiled in the office of the late Medical Board of Bengal, the following statement of the mortality in the prisons of the Upper and Lower Provinces of that Presidency for forty-two years is obtained :—

Average strength	1,053,825
Deaths	76,404
From dysentery.................................	15,370
,, diarrhœa	7,430
,, fevers	11,539
,, cholera....................................	9,236
,, phthisis	1,446
,, hepatitis	167
,, all other diseases and causes	31,216

In that period the

Ratio of sick to strength was	123·07
,, deaths ,, ...	7·25
,, ,, to treated	5·86

There unfortunately exist no trustworthy data of the health and mortality of the free population in any part of Northern India, to compare with the preceding. In a report published by the Municipal Commissioners of Calcutta a short time since—to which I have not access at present—if I remember rightly, the mortality of the native population during the year in question, was estimated at 3·50 per cent. I am afraid that no confidence can be placed in this statement,

because the numerical strength of the population of the metropolis of British India is unknown; the estimates formed of it by different persons varying by as much as 250,000.

Attempts have been made to contrast the mortality of the prisoners in Bengal, with that of the sepoys of the late Bengal army, which has been estimated at about 1·60 per cent. The grounds of comparison are so entirely different, that no inferences of any practical value can be fairly deduced from them. The sepoys were recruited from the healthiest and most long-lived classes of the population. They were very carefully selected, and all men of doubtful physical formation were rejected. A large number of them enlisted for short periods, and left the army while still in the prime of life and vigour. Many died when absent on leave, who were not accounted for in the casualty rolls. At different times large temporary levies were entertained which were again disbanded on the cessation of the pressure that called them into existence, as after the Afghan disasters, during the Sikh and Punjab campaigns, and during the recent mutiny, by the enrolment of a motley host, which has again melted away, before its members could have exerted an appreciable influence on the sickness and mortality in the army. Again, it is well known that no Hindoo of any caste will, if he can avoid it, die away from the sacred streams and holy places of his country. If sick unto death, they invariably, when in any way practicable, obtained leave of absence to die in the odour of sanctity, and usually never rejoined the ranks. Such cases used not to be, and probably are not still, debited to the mortality list of the army, so that the calculations of the casualties among the native soldiers of Bengal, were not themselves free from important sources of fallacy. These very men in Aracan, Burmah, and generally when employed out of their own country, are sickly and die in large numbers, either at once, or after their return to their homes on leave, from the sequelæ of diseases contracted on foreign service.

The prisoners on the other hand, " belong to the most short-lived " of all classes, being either ill-fed or dissipated men, they are of all " ages, many of them are in bad health when at first confined, and " every one of them is detained until his term expires, whether they " get ill or not." *

At the same time it must be admitted that a very large proportion of the Bengal prison mortality, is from zymotic diseases, and is preventible by a better construction of prisons than at present obtains; by a larger amount of space being allowed to each convict to at least double the extent that obtains at present; by improved drainage and ventilation, several of the most unhealthy gaols being

* " Bengal Prison Discipline Report," Calcutta, p. 65.

from defects of original construction and the injudicious selection of their sites, insusceptible of either the one or the other; by some change in the exisiting dietary, to be determined by careful experiments for which the requisite scientific data now exist; and by the careful regulation of labour and internal economy by some more immediately responsible and skilled agency, than that afforded by the existing system of placing the prisoners in the charge of officers who have neither the time, the experience, nor the particular knowledge necessary to control them properly. For this a special agency is quite as much needed in India as it is in England. The remedy for the exist, ing evils needs only the introduction of the system of construction and internal management of prisons which have worked so well in England and in Ireland, and which is seen in the Mazas prison in Paris, and the Maisons Centrales of France, many of which I have visited since my return to England, and studied carefully with special reference to this subject.

In dealing with this part of the question of prison management, I have purposely avoided all purely professional and technical details as unsuited for the Statistical Society.

VI.—*Labour in its Penal, Pecuniary, and Reformatory Relations,*

Prior to 1838 no regular system of in-door labour for convicts existed in Bengal. The most hardened offenders, and those convicted of heinous crimes, worked in chains on the public roads. The menial offices of the prisons were performed by men of suitable caste, and similar functions in public offices were assigned to convicts. The great body of the convicts were idle, and led a life of ease and indul, gence proportionate to their means of bribing the gaolers and other subordinate functionaries with whom they come into immediate contact. It may easily be imagined that by such a system few of the ends intended to be produced by imprisonment, either of a penal or reformatory character, were likely to result. The mode of employing the labour of the convicts rested entirely with the magistrates of the districts. It was remarked by the Bengal Prison Discipline Committee that "the sentence of hard labour is sometimes set aside, by " allowing the labour to be merely nominal; and at all times an " uncontrolled power of alleviating the sentence of the law is " possessed by subordinate functionaries, whose only proper duty is " to carry that sentence into execution. This power is recognised in " the magistrate alone; but there is no doubt that it is exercised, " more or less, according to the vigilance of that officer, but still " everywhere exercised by the gaol darogahs (gaolers). When " exercised by the magistrate it is, we believe, always with an honest, " though it must often be with an erroneous regard to the crime, the " general character of the prisoner, or the peculiar effect which a

" particular kind of work would have upon him. When exercised by " the gaol darogah it is, we believe, never with any regard to the " crime or the character of the prisoner, but either from a popular " respect to his caste or character, or from a knowledge of his " having the means of paying for the favour."

That committee, among the remedial measures suggested by it, strongly urged the abolition of out-door work, and the strict enforcement of in-door labour. With reference to the latter, they set their faces against the introduction of manufactures and industrial occupations, on general and special grounds, and advocated the employment of convicts sentenced to labour in dull, monotonous, wearisome tasks, such as stepping upon a tread-wheel, turning a capstan or hand-crank, pumping water, pounding bricks, grinding flour, and the like.

The tread-wheel and crank were only partially tried, and were speedily abandoned. As mere instruments of punishment they were effective enough, but they were found to be injurious to health, to be an unprofitable employment of labour that might be turned to good account, and to be attended with no moral benefit to the criminal himself. Accordingly, the employment of convicts in profitable works of industry was commenced, and has been continued to the present time.

In the tables which are subjoined are shown the financial results of the measure for seventeen successive years, exhibiting a steady and progressive increase.

The first table exhibits the out-turn of manufactures from 3,696*l.* in 1843, to 17,394*l.* in 1859, or nearly treble the amount, after deducting all charges incurred in their production.

ABSTRACT STATEMENT *of the Out-turn of Gaol Manufactures in Bengal from their commencement in 1843-4 to the Year 1859-60.*
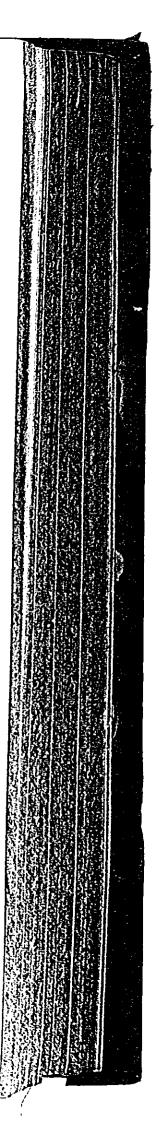
1	2	3	4	5	6	7	8	9
Years.	Number of Manufacturing Gaols.	Average Number of Prisoners sentenced to Labour in all Gaols.	Average Number of Prisoners employed upon Manufactures.	Value of Articles Sold and Consumed for Public Purposes.	Add Value of Articles in Store at the close of the Year.	Total.	Deduct Value in Store at the close of the Preceding Year.	Gross Out-turn of the Year.
				R.	R.	R.	R.	R.
1843–44	35	19,707	Not known	42,954	19,849	62,803	—	62,803
'44–45	35	21,204	3,138	70,813	20,524	91,338	19,847	71,488
'45–46	40	21,257	3,986	84,716	24,397	109,114	20,524	88,589
'46–47	43	20,762	4,717	98,951	28,926	127,877	24,397	103,479
'47–48	46	19,991	4,791	107,514	30,304	137,818	28,926	108,892
'48–49	45	20,252	4,807	116,116	33,914	150,030	30,304	119,726
'49–50	45	19,755	4,980	137,042	36,742	173,784	33,914	139,870
'50–51	48	20,990	4,923	154,343	40,480	194,824	36,742	158,081
'51–52	50	20,285	5,975	178,046	51,295	229,341	40,480	188,860
'52–53	52	20,023	6,637	203,852	64,403	268,255	51,295	216,960
1853–54	48	16,980	6,132	236,861	57,618	294,479	62,971	231,507
'54–55	49	16,691	6,645	226,749	56,038	282,788	57,618	225,169
'55–56	49	16,585	6,435	235,740	55,555	291,296	56,894	234,401
'56–57	48	16,885	6,306	259,171	56,169	315,341	55,532	259,808
'57–58	47	15,664	5,999	250,985	60,842	311,828	47,501	264,326
'58–59	46	16,121	5,610	244,071	53,596	297,667	53,970	243,697
'59–60	53	15,869 11/60	6,673 1/4	298,584	79,076	377,661	51,416	326,046

10	11	12	13	14	15	
Years.	Charges incurred during the Year on account of Manufactures.	Net Produce of the Year.	Average Earning of each Prisoner employed upon Manufactures.	Average Earning from Manufactures of each Prisoner Sentenced to Labour.	Increase in the Produce of the Year as compared with the Previous Year.	Decrease in the Produce of the Year as compared with the Previous Year.	Remarks.
	R.	R.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
1843–44	25,840	36,963	—	1 14 -1/10	—	—	
'44–45	34,869	36,618	11 10 8 5/10	1 11 7 5/10	—	344 7 10	
'45–46	42,186	46,402	11 10 3 1/10	2 2 11 7/10	9,784 - 9 1/2	—	
'46–47	50,625	52,853	11 3 3 8/10	2 8 8 7/10	6,451 - 11 1/2	—	
'47–48	61,302	47,590	9 14 11 3/10	2 6 1	—	5,263 4 2 1/4	
'48–49	62,389	57,337	11 14 10 1/10	2 13 3 5/10	9,746 6 7 1/4	—	
'49–50	69,029	70,840	14 3 7 5/10	3 9 4 5/10	13,503 8 11	—	
'50–51	70,058	82,023	16 10 6 7/10	3 14 6 3/10	11,182 10 10 3/4	—	
'51–52	94,010	94,850	15 13 11 7/10	4 10 9 7/10	12,826 15 4 1/4	—	
'52–53	115,666	101,294	15 4 2 3/10	5 - 11 3/10	6,444 7 8 1/4	—	
1853–54	143,357	88,149	14 6 -	5 3 -9/10	—	13,144 12 9 1/4	
'54–55	131,586	93,583	14 1 3 9/10	5 9 8 5/10	5,433 6 3 1/2	—	
'55–56	125,542	108,859	16 14 8	6 9 -7/10	15,275 11 8 1/2	—	
'56–57	136,169	123,638	19 9 8 4/10	7 5 1 9/10	14,779 9 2 1/4	—	
'57–58	142,568	121,758	20 4 8 1/10	7 12 4 6/10	—	1,880 3 4	
'58–59	138,319	126,686	22 9 3 5/10	7 13 8 4/10	4,927 10 3	—	
'59–60	152,103	173,943	26 1 -1/10	10 15 4 5/10	47,256 14 -1/2	—	

Remarks: The results in this Statement up to the Year 1857-58 are taken from the Bengal Government Resolution of the 12th July, 1860, and include the House of Correction, which is not under the control of the Inspector-General of Gaols, Lower Provinces.

The average earning of each prisoner very nearly doubled in the time mentioned. The amounts mentioned are in Indian currency.

The profits realized by the sale of the products of prison industry are shown in the next table, together with the net earning of each convict employed in handicraft, and of each individual sentenced to labour.

1	2	3	4	5	6	7	8
Years.	Number of Manufacturing Gaols.	Average Number of Prisoners Sentenced to Labour in all Gaols.	Average Number of Prisoners Employed in Manufactures.	Charges.	Gross Receipts or Value of Articles Sold and of those Consumed for Public Purposes.	Value of Articles in Store at the end of the Year.	Total Out-turn or Amount of Columns 6 and 7.
				R.		R.	R.
1843–44	35	19,707	Not known.	25,840	42,954	19,849	62,803
'44–45	35	21,204	3,138	34,869	70,813	20,524	91,338
'45–46	40	21,257	3,986	42,186	84,716	24,397	109,114
'46–47	43	20,762	4,717	50,625	98,951	28,926	127,877
'47–48	46	19,991	4,791	61,302	107,514	30,304	137,818
'48–49	45	20,252	4,807	62,389	116,116	33,914	150,030
'49–50	45	19,755	4,980	69,029	137,042	36,742	173,784
'50–51	48	20,990	4,923	76,058	154,343	40,480	194,824
'51–52	50	20,285	5,975	94,010	178,046	51,295	229,341
'52–53	52	20,023	6,637	115,666	203,852	64,403	268,255
1853–54	48	16,980	6,132	143,357	236,861	57,618	294,479
'54–55	49	16,691	6,645	131,586	226,740	56,038	282,788
'55–56	49	16,585	6,435	125,542	235,740	55,555	291,296
'56–57	48	16,885	6,306	136,169	259,171	56,169	315,341
'57–58	47	15,664	5,999	142,568	250,985	60,842	311,828
'58–59	46	16,121	5,610	138,319	244,071	53,596	27,667
'59–60	53	15,869 11/60	6,673 1/4	152,103	298,584	79,076	377,661

9	10	11	12	13	
Years.	Net Profit, being the Excess of the Amount in Column 6 over that in Column 5.	Average Earning of each Prisoner employed on Manufactures.	Average Earning of each Prisoner, sentenced to labour, from Manufactures.	Increase in the Profits of the Year over those of the previous Year.	Decrease in the Profits of the Year from those of the previous Year.	Remarks.
	R.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
1843–44	17,113	—	- 13 10 7/10	—	—	
'44–45	35,943	11 7 3 9/10	1 11 1 4/10	18,829 15 4	—	
'45–46	42,529	10 10 8 6/10	2 - -1/10	6,585 15 -1/2	—	
'46–47	48,325	10 3 11	2 5 2 7/10	5,795 13 1 1/2	—	
'47–48	46,212	9 10 3 9/10	2 4 11 4/10	—	2,113 - 9 1/2	
'48–49	53,727	11 2 9 9/10	2 10 5 7/10	7,514 7 11 1/2	—	
'49–50	68,012	13 10 6 7/10	3 7 1	14,285 1 5 1/2	—	
'50–51	78,285	15 14 5 1/10	3 11 8	10,723 3 7 1/2	—	
'51–52	84,036	14 1 -7/10	4 2 3 7/10	5,750 12 3	—	
'52–53	88,186	13 4 7	4 6 5 6/10	4,149 15 1 1/2	—	
1853–54	93,503	15 3 11 7/10	5 8 1 2/10	5,317 4 5 1/2	—	
'54–55	95,163	14 5 1 6/10	5 11 2 6/10	1,659 13 3 1/2	—	
'55–56	110,197	17 1 11 9/10	6 10 3 7/10	15,034 12 1 1/2	—	
'56–57	123,001	19 8 1	7 4 6 6/10	12,803 14 7 1/2	—	
'57–58	108,417	18 1 1 5/10	6 14 8 5/10	—	14,584 7 9 1/4	
'58–59	127,060	22 10 4 6/10	7 14 1 5/10	18,643 2 -1/4	—	
'59–60	146,481	21 15 2 4/5	9 3 8 3/10	19,420 10 7 1/2	—	

Remarks: The results up to the year 1857-58 are taken from the Bengal Government Resolution of the 12th July, 1860, and include the House of Correction, which is not under the control of the Inspector-General of Gaols, Lower Provinces.

The influence exercised by the substitution of profitable for unprofitable industry in the prisons of Bengal, is exhibited in the subjoined statement of the gross and net cost of prisoners, since the department has been under my charge.

The gross cost in the years mentioned is as follows, together with the net cost, which has been obtained by deducting the actual net profits realized from the gross cost of maintenance:—

	Gross Cost.	Average Cost per Prisoner.	Net Cost.	Net Average Cost per Prisoner.
	R.	R. A. P.	R.	R. A. P.
1855–56	814,938	42 10 7	724,079	37 14 5·9
'56–57	823,659	43 – 1	716,359	37 6 5·9
'57–58	786,604	41 10 7	674,804	36 12 6
'58–59	883,919	43 9 4	778,541	38 6 2
'59–60	795,109	41 13 5	621,166	32 11 –

In round numbers, about a seventh of the whole cost of maintenance of tried and untried prisoners has been annually repaid by the employment in handicrafts of considerably less than one-half of those sentenced to labour. Of this body 10 per cent. are employed in menial offices, for which no money payment or credit is allowed, and a very large proportion are inefficient and unable to work from old age and sickness. The ratio of the latter has seldom averaged less than 20 per cent., and has often considerably exceeded that proportion.

Two of the prisons, the gaols at Alipore and Hooghly, at the present time repay nearly, if not quite, the entire cost of maintaining them.

I am fully of opinion, that by the establishment of central prisons under special management, the whole cost incurred by the State in Lower Bengal for the maintenance of prisons would be repaid. This, although confessedly a secondary, is by no means an unimportant object of prison management. In 1856, at my suggestion, an exhibition of prison manufactures was held in the town hall of Calcutta, to which thirty-six gaols in the lower, and ten in the upper provinces contributed. The articles exhibited consisted chiefly of hand-woven cloth, towelling, carpets, rugs, blankets, horse clothing, saddlery, carpentry, iron work, tape, paper, coarse gunny cloth for rice and sugar bags, bamboo, rattan, and reed fabrics. Most of the articles exhibited were the produce of the ordinary industry of the prisons. Some of them were the work of convict artizans, who were skilled workmen before they became criminals. A great deal more was the result of the teaching of useful handicrafts in the prisons,

and exhibited good proof that gaols may, by proper and judicious management, become valuable industrial schools.

It is now, I believe, generally admitted by those best entitled to entertain and express an opinion on the subject, " that the discipline " of labour is greater when productive, than when unproductive. " The conversion of a hardened heinous offender, who is unusually an " unproductive consumer, into a productive self-supporter, is no mean " result already attained, and is the repayment of a part of the debt " to society incurred by every offender against the laws.

" There is a very transparent fallacy involved in the argument, " that to teach a criminal an honest trade, and to restore him to " society a skilled workman, is to make the prison the artizan's step- " ping-stone to fortune, and to render the honest labourer anxious " to graduate in the same productive school of industry."

The advantage is remote and uncertain. The penalties involved in compulsory separation from society, in strictly regulated task work, in a rigid denial of all the little indulgences that sweeten labour and render life agreeable, the dreary monotony of the same walls and the same work year after year, the entire absence of all control over their own acts, the sameness of the diet, without change or variety, however superior it may be in quality to the homely fare of the honest labourer; the early rest and early rising in unchanging succession, are immediate, positive, and palpable evils, easily imagined and readily realized. There is, then, a heavy balance against every well-regulated prison, with the smallest pretensions to strictness of discipline, as a desirable school of industry for a poor, ignorant, unskilled, but honest labourer.

The hard labour exacted in the gaols of Lower Bengal is similar in character to that of English penitentiaries, but less in amount, as might be expected from the lower physical power, and less nutritious diet of their inmates, as well from the influence of climate in diminishing the capacity for sustained muscular exertion.

I have no calculations to show the exact amount of these influences, but hope to be able to obtain them hereafter.

VII.—*Cost of Prisoners in Bengal.*

The cost of a prisoner in India generally is low, as compared with the expense of maintenance of a convict in Great Britain. The food and clothing of the former are much cheaper, and the wages of guards and other subordinate functionaries are very considerably beneath the expense of similar agency at home. All menial offices of every kind in the prisons of Bengal are performed by convict agency,—for such services no actual outlay is therefore incurred. At the same time, no money credit is allowed to the prisons on this account, in calculating the cost of maintenance of their inmates.

The greatest expenditure incurred is on account of food, which represents on an average at least 50 per cent. of the whole outlay. Of late years the great rise in the cost of food has been attended with a corresponding increase in the cost of clothing and other necessaries, as well as an augmentation of the wages of most of the free agents employed in prisons. The material prosperity of Bengal has increased so rapidly in the last twenty years, that the value of food, necessaries of all kinds, and the wages of labour, have more than doubled in that period. In travelling through the country in the discharge of my duties, the evidences of this unexampled prosperity have been abundantly manifest in the better clothing of the peasantry, a considerable improvement in their physical appearance, and a corresponding change for the better in the condition of their cattle. This is more particularly the case in those districts in which European energy and capital have been employed in the development of the resources of the country.

In the following table is shown the gross cost of maintenance of the prisoners of the lower provinces for every tenth year, from 1815 to 1855, and for each succeeding year to the 30th of April, 1860:—

STATEMENT *showing the Expense incurred on Account of the Prisoners in the Lower Provinces of the Presidency of Bengal under every Head, as well as the Total Gross and Net Cost during the Years* 1815-16, 1825-26, 1835-36, 1845-46, *and* 1855-60.

Years.	Total Average Number of Prisoners per Day.	Total Expense of Food per Annum.	Total Expense of Clothing per Annum.	Total Expense of Establishment and Guards per Annum.	Total Expense of Hospital Charges per Annum.	Total of all other Expenses and Contingencies per Annum.	Gross Cost per Annum.	Net Cost per Annum.
		R.	R.	R.	R.	R.	R.	R.
1815–16	17,978	268,829	41,651	63,516	36,057	62,852	472,905	—
'25–26	14,595	214,263	34,392	82,636	13,806	53,387	398,484	—
'35–36	14,166	255,608	32,831	251,534	12,079	72,763	624,815	—
'45–46	23,671	602,708	51,155	331,412	10,471	70,456	1,066,204	—
'55–56	19,102	391,890	49,045	260,562	16,352	97,086	814,938	724,079
'56–57	19,151	409,669	51,281	268,062	15,559	79,087	823,659	716,359
'57–58	18,880	421,557	49,135	242,193	18,592	55,124	786,604	674,804
'58–59	20,282	500,367	63,330	222,570	20,181	77,468	882,919	778,541
'59–60	19,003	454,770	63,033	199,289	16,423	61,592	795,109	621,166

In English currency, the figures are subjoined, the rupee being calculated at two shillings, its estimated standard value. Of late years, however, the actual market value of the rupee has seldom reached that standard.

	£
1815–16	47,290
'25–26	39,848
'35–36	62,481
'45–46	106,620
'55–56	81,493
'56–57	82,366
'57–58	78,660
'58–59	88,391
'59–60	79,510

In the same years the cost for each prisoner is annexed.

	£	s.	d.
1815–16	2	12	8
'25–26	2	14	8
'35–36	4	8	2
'45–46	4	10	0
'55–56	4	5	2
'56–57	4	6	0
'57–58	4	3	4
'58–59	4	7	6
'59–60	4	3	8

In the above calculations small fractions have been omitted.

The tabular statement which follows exhibits the detail of the above cost, under the heads of food, clothing, guards, hospital charges, and all contingent expenditure, in which tables are included the repairs of buildings, lighting, the purchase of brooms, baskets, and all implements used in cleansing, as well as the cost of the bedding of the convicts.

STATEMENT *showing the Average Expense incurred on account of each Prisoner in the Lower Provinces of the Presidency of Bengal under every Head, as well as the Gross and Net Cost per Prisoner during the Years* 1815-16, 1825-26, 1835-36, 1845-46, *and* 1855 to 1860.

Years.	Total Average Number of Prisoners per Day.	Total Average Expense of each Prisoner's Food per Annum.			Total Average Expense of each Prisoner's Clothing per Annum.			Total Average Expense of Establishment and Guards, on Account of each Prisoner per Annum.		
		R.	A.	P.	R.	A.	P.	R.	A.	P.
1815–16	17,978	14	15	3	2	5	1	2	8	6
'25–26	14,595	14	10	11	2	5	8	5	10	7
'35–36	14,166	18	—	8	2	5	1	17	12	1
'45–46	23,671	25	7	5	2	2	7	14	—	—
'55–56	19,102	20	8	3	2	9	1	13	10	3
'56–57	19,151	21	6	3·1	2	10	10·1	13	15	11·6
'57–58	18,880	22	5	3	2	9	8	12	13	3
'58–59	20,282	24	10	8	3	2	—	10	15	7
'59–60	19,003	23	14	11	3	5	1	10	7	9

STATEMENT *showing Average Expense, &c.—Contd.*

Years.	Total Average Expense of Hospital Charges on Account of each Prisoner per Annum.			Total Average of all other Expenses and Contingencies for each Prisoner per Annum.			Gross Average Cost of each Prisoner per Annum.			Net Average Cost of each Prisoner per Annum.		
	R.	A.	P.	R.	A.	P.	R.	A.	P.	R.	A.	P.
1815–16	2	–	1	3	7	11	26	4	10	—		
'25–26	–	15	2	3	10	6	27	4	10	—		
'35–36	–	13	8	5	2	2	44	1	8	—		
'45–46	–	7	1	2	15	7	45	–	8	—		
'55–56	–	13	8	5	1	4	42	10	7	37	14	5·9
'56–57	–	13	–	4	2	0·9	43	–	1·7	37	6	5·9
'57–58	–	15	9	2	14	8	41	10	7	36	12	6
'58–59	–	15	11	3	13	2	43	9	4	38	6	2
'59–60	–	13	10	3	3	10	41	13	5	32	11	–

In the five last years the net cost has been obtained by deducting the amount of realized profits on the sale of prison manufactures. The manner in which the profit referred to is calculated, is explained in another section of this paper. The net annual cost has averaged during the period mentioned, in round numbers, about 3*l.* 12*s.* 6*d.* a prisoner.

I have not attempted to institute any comparison between the cost of prisoners in India and in England, because the conditions are so widely different that no comparison can fairly be made.

The prevention of extravagance and waste are of obvious necessity in the management of prisons, but mere economy, when unattended with efficiency and the due fulfilment of all the purposes for which criminals are subjected to restraint and punishment, is of more than questionable advantage. The cost of the vast agency needed for the protection of society, in the apprehension and trial of offenders against the laws, and in the prevention of crime, is so great that no addition of cost should be grudged to render the punishment, which is the main object of apprehension and trial, effectual. On this subject it has been aptly remarked, that it would be better to allow half the crimes committed to pass unnoticed, and to punish effectually those that are noticed, than to notice all and to punish none effectually.

To place the prison discipline of Bengal on the footing which now obtains in Great Britain, and without which it cannot be regarded as efficient, will render a considerable outlay in suitable places of confinement necessary, with a corresponding increase in the cost of the special agency needed to work such a system with advantage and success.

Although a point of secondary importance, as compared with the efficiency of punishment, I have no doubt that the whole additional

cost could be covered by the more profitable employment of the convicts; and this would be associated with a great saving of human life, and a vastly improved system of prison discipline.

VIII.—*Escapes and Re-apprehensions.*

In the subjoined table are enumerated the escapes and recaptures of prisoners from 1854 to 1860. The large increase of escapes in 1857 and 1858, was due to the breaking open of several of the prisons in Behar and the S.W. Frontier, and of one gaol in Eastern Bengal, by the mutineers of the Bengal army.

Year.	Average Strength of Prisoners.	Escapes	Ratio of Escapes to Strength.	Re-captures.	Ratio of Recap-tures to Escapes.	Amount paid for Recaptures.			Average Amount of each Recapture.		
						R.	A.	P.	R	A.	P.
1854–55	19,964½	155	0·78	136	87·10	1,615	–	–	11	14	0
'55–56	20,246½	196	0·97	129	65·81	2,220	–	–	17	3	4·2
'56–57	19,248	183	0·951	120	65·573	1,339	–	–	11	1	9
'57–58	18,880	1,612	8·54	956	59·30	1,384	–	–	1	7	1·9
'58–59	20,282	1,447	7·13	902	62·33	3,312	12	–	3	10	9·1
'59–60	19,003	259	1·36	86	33·20	3,003	15	11	34	14	10·6

The wholesale evasions above recorded are partly due to the inefficiency and corruption of the prison guards, and in part to the utter insecurity of many of the prisons themselves. From the only prison in Lower Bengal which is really secure, the great gaol at Alipore, the escapes are as rare and as difficult of accomplishment as in the model prisons of Europe. The only means of remedying this undesirable state of insecurity, is the establishment of properly constructed central prisons, with efficient guards, and above all with special officers in charge of the prisons who have no other duties to perform. Any radical reform with the existing prison agency and prisons is simply impracticable.

IX.—*Education of Prisoners in Bengal.*

The state of education of all persons accused and convicted of crimes in Lower Bengal, has only recently been ascertained.

Of 27,604 persons arrested from October, 1858, to April, 1859, the following particulars were ascertained.

Of the convicts sentenced to imprisonment with labour, 1,864, or about a seventeenth of the whole number could read and write, viz.:—

	Males.	Females.
Hindoos	1,139	7
Mussulmans	438	—
Other denominations	100	—
	1,677	7

Of those sentenced to simple incarceration without labour, 1,101, or about 4 per cent. of the whole number could read and write, of these there were,—

	Males.	Females.
Hindoos	789	1
Mussulmans	271	—
Other denominations	40	—
	1,100	1

Of civil prisoners (debtors and revenue defaulters), 169 could read and write,—

	Males.
Hindoos	125
Mussulmans	32
Other denominations	12
	169

Of the entire number, 587 were reported to have been well educated for their position in life. In the majority of cases this amounted merely to the ordinary curriculum of a Patshala, or common village school, in which moral training is unknown.

Those who were altogether ignorant amounted to 23,815 males, and 248 females, or about 87 per cent. of the whole number.

In 1859-60, of 52,068 persons admitted to the prisons 2,644, or 5·08, could read and write: of these there were,—

Sentenced to labour 941 or 1·81 per cent., viz.:—

	Males.	Females.
Hindoos	540	—
Mussulmans	253.	—
Other denominations	147	1
	940	1

Sentenced without labour 1,463 or 2·81 per cent.

	Males.	Females.
Hindoos	1,065	—
Mussulmans	298	—
Other denominations	100	—
	1,463	—

Of the civil prisoners 240, or 0·44 per cent. all of whom were males.

	Males.
Hindoos	179
Mussulmans	39
Other denominations	22
	240

Of the whole number in custody 814, or 1·56 per cent. were represented to have been well educated for their position in life.

The remaining 47,252 males, and 1,852 females, or 93·34 per cent. were entirely ignorant.

To none of the prisons under my charge are religious instructors or teachers of any kind attached. I myself doubt entirely the efficacy, as a moral instrument, of any system of instruction, from which the teaching of religion is, and for obvious reasons, must, in the existing state of India, be excluded. The Government of India has recently ruled that a prison in the eastern empire of Great Britain is not a fit field for missionary enterprise, and has forbidden all attempts to make proselytes among the prisoners confined in them. Every prisoner of every religious persuasion is allowed, if he chooses or wishes, at certain times, and subject to the ordinary rules for the maintenance of discipline, to see a minister of the Christian religion, and to receive religious instruction from him upon expressing a desire to that effect; but unrestricted admission to the gaols for the express purpose of conversion is not allowed. Secular instruction, for the mere purpose of benefiting a prisoner on his release, without exerting on him any reformatory influence, does not appear to me to be the kind of education required for the ignorant members of the criminal classes in Bengal. If such instruction were likely to restore them to society better and wiser men, and less liable to commit crime than they were in a state of ignorance, it ought undoubtedly to be attempted, but the results of prison education in those parts of India where it has been tried for some years past, do not encourage the belief that such is the case. Be that, however, as it may, the introduction of any scheme of education in the prisons of lower Bengal with the existing agency, is impracticable. Useful trades and habits of industry are taught and inculcated, as much as can be accomplished by the constant employment of convicts sentenced to labour, in manufactures and industrial pursuits generally, and to this extent is reformation by such means at present limited.

X.—*Concluding Remarks.*

In the record submitted above, such points connected with prison discipline in Lower Bengal as are susceptible of the application of numbers, are alone touched upon. The important questions

of solitary confinement, classification, the effects of imprisonment on different classes of criminals as modified by their social condition and education, the existing state of moral feeling in Bengal in regard to crime and punishment, with the many collateral relations of those questions, are of necessity left unnoticed.

At the last meeting of the International Statistical Congress, the whole subject of the judicial statistics of British India was omitted, for want of data and of uniformity of system in the returns from different provinces and presidencies. Now that the Government of India has been transferred to the Crown, and a record of its administration is annually submitted to Parliament, and is thus brought under the immediate scrutiny of the British public, it is to be hoped that uniformity of system will be introduced, and that the information at present wanting, will hereafter be forthcoming. There is nothing whatever in the circumstances of the different Presidencies that in any way prohibits the introduction of uniformity; there is very much which renders it desirable, and even necessary. If such statistics be deemed absolutely necessary for wise and permanent legislation in Great Britain, where the social condition of the people is so well known and so carefully studied, how much more important do they become in regard to a country of which so little is known, and which has been committed to the custody of England for the highest of all human purposes.

It is only by the acquisition of an intimate knowledge of the moral and material wants of the vast population of British India, and of the best and wisest means of raising them in the scale of nations, that England can fulfil the responsible charge intrusted to her.

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OBSERVATIONS *upon the* STATISTICS *of* ILLEGITIMACY. *By* W. G. LUMLEY, ESQ., LL.M., *Barrister, Assistant Secretary of the Poor Law Board, and one of the Honorary Secretaries of the Society.*

[Read before the Statistical Society, 18th March, 1862.]

IN a paper by Mr. Acton, read before the Society in 1859, some complaint was made as to the want of what he termed the literature of Illegitimacy in England; and in that paper he gave an interesting and detailed account of the results of some inquiries as to this subject in certain metropolitan parishes. He drew a sad picture of the state of the morals in this metropolis, and expressed, in severe terms, his disapproval of the law which provides an inadequate remedy for the mothers of illegitimate children.

It is believed that the opinions so expressed are very commonly entertained, and there is a general idea that the amount of illegitimacy existing in this country is very large. A similar opinion has existed in other countries. The compiler of the Vital Statistics of Prussia, whose report was abstracted by Sir F. Goldsmid, in a paper read before the Society in 1860, makes the same remark as to the general estimate which prevailed in that country. The result of his researches induced him to express his conviction that that estimate was unfounded.

The object of the present paper is to bring together as much information as could be obtained by the compiler upon this subject, so that it might be ascertained what is the real extent of this social disorder in this country; how it differs in the various parts of the kingdom; and how, in this respect, England can bear a comparison with other countries.

The result appears to the author to be satisfactory. Without for a moment undervaluing the statements often expressed, of the grievous consequences to the mothers and their offspring which result from illegitimacy, he rejoices to find that the amount of the evil is below what he believes to be the general estimate, and that this country holds a high position when compared with other countries.

It is proposed to investigate the subject under the following heads:—

1. Of the Statistics of Illegitimacy in England generally;
2. In the Different Counties and Towns of England;
3. Of the Influence of the Seasons of the Year;
4. Of the Distinction between the Sexes;

5. Of Pauper Illegitimacy;
6. Of Illegitimacy in Scotland;
7. Of Illegitimacy in Foreign Countries.

I.—*Of the Statistics of Illegitimacy in England and Wales generally.*

It is impossible to ascertain, with complete accuracy, the number of illegitimate births in England and Wales during the year. The Reports of the Registrar-General give very full accounts from 1842 to the present time of the children who are registered in such a manner as to disclose their illegitimacy, but it is certain that a great number of bastard children are born who are not registered; others who are adulterine bastards are registered as legitimate; while many who are the offspring of parents living together as married, though not so, are registered in such a manner as to appear to be legitimate.

The registration of births is provided for by the Statute 6 and 7 Will. IV, cap. 86, which directs the father or mother of a child to give the particulars therein required to be known and registered touching the birth of the child. The particulars are set forth in a schedule appended to the Statute, and among others are the *name and surname of father, name and maiden name of mother, rank or profession of father.* There is no column which refers to the *status* of the child. In the regulations issued to the Registrars of Births, it is laid down that "if the informant declines stating the name of the " father, or there shall be reason to believe that the child is illegiti- " mate, the Registrar shall not press inquiry on that subject, but " shall leave the 5th and 6th columns blank." These are the columns which refer to the *father.* Where, therefore, these columns are left blank, or where the father's name and the mother's name are different, the registrar's entry leads to the inference of illegitimacy. But if the woman has assumed the name of the man with whom she is living, as is very frequently the case, there is nothing to prevent the entry of her children as legitimate; and it would doubtless be found, if it were practicable to investigate the fact, that a consider- able addition should be made on this ground to the numbers of illegitimate children annually reported by the Registrar-General.

In regard to the non-registered children it is very doubtful whether they are now numerous. In 1859 the total number of births registered was 689,881, and this seems to be so large a number when reference is made to the population of the country as to exclude the notion of any considerable surplus of births unregistered. At the same time it must be remembered that the ordinary time of registration is extended to six weeks after birth, consequently many children die before the lapse of that time, and hence are not registered. This observation, however, applies to all classes of children, as well legitimate as illegitimate.

But it is sometimes alleged that the circumstances attending the birth of the latter class lead to an inference that the proportion of deaths among the early-born infants is greater in reference to ille- gitimate than to legitimate children. It is by no means clear whether this can be established. No doubt the circumstances attending such births are adverse, yet it is to be remembered that the mother is generally in the prime of life, and in the lowest classes is probably not subject to so much privation as the wife of a poor labourer or mechanic. The registers of deaths would not elucidate this question, because they do not disclose the parents of the deceased, and therefore would not show the *status* of these young children, whose deaths are registered.

But having made these preliminary observations in regard to the probable incompleteness of the returns upon which the Reports of the Registrar-General are founded, it is proposed now to examine those reports as they have been drawn up in regard to this particular subject of inquiry. Whether the result is satisfactory in regard to the moral conduct of the population of this country so far as it is to be deduced from the prevalence of illegitimacy, is a question dependant upon the comparison with the state of other countries, which will appear hereafter.

The registration of births and deaths commenced in 1838, but no distinct analysis of the births, as regards legitimacy, was made until the latter half-year of 1841. From that time down to 1859, the last published returns,—that is, for a period of nineteen years, complete and distinct returns of the two classes of births have been given, and the following table is obtained from the Reports of the Registrar- General:—

Year.	Gross Number of Registered Births.	Illegitimate Births.			Proportion per Cent. of Illegitimate Births to Gross Number Registered.
		Males.	Females.	Total.	
1841	248,554	8,223	7,616	15,839	6·37
'42	517,739	17,810	16,986	34,796	6·7
'43	527,325	—	—	36,059	6·8
'44	540,763	—	—	36,978	6·8
'45	543,521	19,413	18,828	38,241	7·0
'46	572,625	19,735	18,794	38,529	6·7
'47	539,965	18,413	17,712	36,125	6·7
'48	563,059	18,580	18,167	36,747	6·5
'49	578,159	20,049	19,285	39,334	6·8
'50	593,422	20,488	19,818	40,306	6·8
'51	615,865	21,397	20,603	42,000	6·8
'52	624,012	21,734	20,748	42,582	6·8
'53	612,391	20,333	19,430	39,763	6·5
'54	634,405	20,978	19,763	40,741	6·4
'55	635,043	20,871	19,912	40,783	6·4
'56	657,453	21,655	20,996	42,651	6·5
'57	663,071	21,931	21,071	43,002	6·5
'58	654,481	22,304	21,001	43,305	6·6
'59	689,881	22,994	21,757	44,751	6·5

It thus appears that the number of illegitimate births has fluctuated during the whole of the period between the ratios 6 and 7 per cent., with a uniformity which seems almost incredible.

In the year 1842, 67 out of every 1,000 births were illegitimate. In 1852, the number was 68 out of every 1,000; and in 1859 the number was 65.

The Registrar-General, in his different reports, has generally made some special reference to this subject; but he entered very fully into an examination of it in the Sixth Annual Report, where he devoted much attention to the returns in England, and made a comparison with the returns from other countries. He there showed that the computation for England previously existing, which had been made by the late Mr. Rickman, at the census of 1831, was far too low. That computation had been based upon the returns made to this gentleman by clergymen, of children born in their parishes, and gave a return of 20,039 illegitimate children. But these were in many instances only the numbers of children who were baptized, and it is obvious that many illegitimate children were never brought to the font. The Registrar-General, comparing the returns for 1842 with Mr. Rickman's estimate, points out the great excess of the former over the latter, as being 74 per cent., while the increase of the population was only 17 per cent.

He then continues. "This difference may, perhaps, among other "causes, be ascribed to the actual increase in the proportion of ille-"gitimate children during the operation of that important change "in the Poor Law, which threw the charge of maintaining their "illegitimate offspring upon the mothers. But to whatever cause "the increase may be ascribed the relative numbers of legitimate to "illegitimate births and baptisms returned in 1830 and 1842, show "in the latter year a relative as well as an absolute excess of "illegitimate children." The meaning of this passage is, that illegitimacy increased in England in the period of these twelve years.

This is the inference drawn by the Registrar-General from the comparison of those two years. But when the above table is examined, which gives the return for a period of nineteen years with so much uniformity, and closes with a decline in the relative numbers, it is rather to be inferred that the difference was to be attributed to the imperfect state of the early returns rather than to any change for the worse in the conduct of the population during a period in which it is generally considered that there was great moral and social improvement.

A Parliamentary paper presented to the House of Lords in 1839 shows the number of illegitimate children registered by the clergymen of the different parishes in the counties of Bedford, Berks, Bucks, Essex, Hertford, Kent, Oxford, Southampton, Sussex, and Wilts,

during the three years ending December 31, 1834, and the three years ending December 31, 1837. The totals in the different counties are as follows:—

	Total Registered during Three Years ending Dec. 31, 1834.	Annual Average.	Total Registered during Three Years ending Dec. 31, 1837.	Annual Average.
Bedford	371	124	324	108
Berks	717	239	862	287
Buckingham	522	174	636	212
Essex	994	331	1,184	393
Hertford	447	149	538	179
Kent	1,428	476	1,360	453
Oxford	709	236	804	268
Southampton	1,122	374	1,248	316
Sussex	1,185	395	1,324	441
Wilts	1,084	361	1,268	322
	8,579	2,859	9,548	3,182

The annual increase in the latter period was 323. This increase was probably due rather to the greater attention which was paid to parochial matters, and the conduct of the poor, than to any falling off in the morality of the country. From a subsequent part of this paper, where the numbers registered in the several counties for the year 1842 are shown, it will appear that the fourth column must have been very far below the truth. Much more, therefore, must the previous average have been inaccurate. It has also been alleged, that after the introduction of the new Poor Law, women had less objection to admit the birth of an illegitimate child, as not being exposed to any peculiar treatment on that account, and therefore she more readily brought her child to be baptized.—See "Second Annual "Report of the Poor Law Commissioners," p. 18. However, the question as to the effect of the changes relating to the law of pauper bastardy will be considered hereafter.

Some continental nations show in their statistical tables the numbers of children who are still-born, or born dead. No such returns are obtained in England or Scotland, and there are no means of ascertaining what are the numbers of such births, nor consequently their effect, in these countries, upon the relative proportions of illegitimate and legitimate children. It is alleged by some that this is a serious default, and that if such returns were obtained the result would be very unfavourable to the illegitimate class. This is a purely speculative opinion with reference to England.

M. Legoyt, "Annuaire de la Economie Politique, &c., pour "1858," p. 8, gives a table showing the numbers of the total births and of the still-born children in France from 1851 to 1857, and the

proportions between the two classes. In 1857 the total births numbered 982,614; of these, 41,905 were still-born, in the ratio of 4·26 to 100 births. He then observes that the still-born are more numerous in the cases of illegitimacy than of legitimacy; the ratio being 7·15 to 100, instead of 4·26.

The actual numbers of the illegitimate still-births are not given for France; but in the same volume, p. 260, where the statistics of Belgium are set out, the progress of the population is shown for 1858 thus:—

	Births, excluding Still-born.		Still-born.	
Legitimate —Males	68,593		3,593	
,, Females	65,080		2,676	
		133,673		6,269
Illegitimate—Males	5,699		453	
,, Females	5,702		346	
		11,401		799
Total—Males	74,292	—	4,046	—
,, Females	70,782		3,022	
Grand Total........................	145,074	—	7,068	—

It here appears, that though there was a large excess of male births over the female, the result is singular in this respect, that the number of female illegitimate births exceeded that of the males, but there was, however, nearly a fourth more illegitimate male still-births than female.

The total still-born to those born alive is 4·9 to 100, but the still-born illegitimate to the illegitimate living births was 7 per cent., which gives much the same result in Belgium as in France.

It is easy to understand that in those countries, where the relief to the destitute is organized with so much less care than in England, and where it is alleged pregnant women betake themselves to the towns for their delivery, many circumstances and accidents will occur to destroy life before parturition. But in England, the administration of the Poor Laws is so prompt, and as a general rule medical relief is supplied to the destitute, however faulty may have been the conduct which led to the destitution, so readily, either at the habitation of the destitute person or in the well-appointed comfortable workhouse, that there is much less ground for the distinction, as regards still-birth, between those two classes in this country.

But two questions may be submitted for inquiry. Do still-births prevail mostly among *primiparæ?* and, Is the ratio of first-births to successive births highest among the illegitimate? If both these questions be answered in the affirmative, some explanation may

be given of the facts now under consideration. On the first question the author has no information;* but as to the latter, it seems the probabilities are strongly in support of the affirmative, though no statistical returns of which he is aware prove such to be the fact.

The criminal statistics are frequently adverted to in connection with the subject of illegitimacy, as it is averred that a large amount of child-murder is attributable to its existence. This cannot be proved, nor can it be negatived, from the state of the judicial statistics relating to crimes in England. The returns relating to crime set forth the general terms of murder and manslaughter, but do not further discriminate.† Hence, it is impossible to distinguish the cases of trials for infanticide, still less those where illegitimate children are murdered by their mothers. But there is an offence under which this crime, in fact, is often punished, either from failure of proof or the leniency of the tribunal—namely, the concealing the birth of a child, and of this offence a record has been kept, and from the Criminal Returns published by the Home Office, it appears that in the three years, 1857, 1858 and 1859, the numbers of cases were as follows for England and Wales :—

	1859.	1858.	1857.
Crimes committed	137	150	114
Persons apprehended	134	124	107
Committed (or bailed) for trial	106	104	90

Although it is impossible not to feel regret at so much crime as these figures indicate, it must be remembered that in each of these years the number of illegitimate children registered was upwards of 43,000, and therefore the return does not support the outcry as to the vast amount of infanticide prevailing in this country.

Here may be mentioned, though the remark applies to a subsequent part of these observations that the Police returns for the same years show that in 1857 there were 5,816 prosecutions for disobeying orders in bastardy; in 1858, the number was 5,050, and in 1859, the number was 4,743. For the same years the prosecutions of prostitutes for violation of the Vagrancy Act were respectively 8,771, 9,997 and 7308.

During the period for which the above table of illegitimacy has been

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* I have learnt from Dr. Tyler Smith, President of the Obstetric Society, that death occurs more frequently in *primiparæ* to the mother and her infant than in subsequent labours, and that the proportion of deaths during labour is greater among males than among females, in consequence of the male fœtal head being larger in circumference than that of the female.—W. G. L.

† See, however, a Parliamentary Return as to the inquests on children under 2 years of age in the Metropolis, presented to Parliament in the Session 1862, No. 177.

obtained the marriages in England have fluctuated slightly, namely to the extent of one-tenth per cent. The marriage-rate from 1844 to 1859, has ranged from 79 per 1,000 of the population to 89 per 1,000. The highest rate was in 1853, when the rate of illegitimacy was almost the lowest namely 65 in the 1,000, and the lowest marriage-rate was in 1847 and 1858, in which years it was equal, when the rate of illegitimacy was respectively 66 and 67 in the 1,000. It must not be overlooked that the marriages belong to the years in which they are celebrated; illegitimacy for three-fourth parts belongs to the year preceeding that of the birth.

The Registrar-General's Reports supply this table.

Population and Marriages in England and Wales.

Years.	Estimated Population.	Marriages.	Ratio of Marriages to the Population.
1844	16,520,000	132,249	·80
'45	16,721,000	143,743	·86
'46	16,925,000	145,664	·86
'47	17,132,000	135,845	·79
'48	17,340,000	138,230	·80
'49	17,552,000	141,883	·81
'50	17,766,000	152,738	·86
'51	17,983,000	154,206	·86
'52	18,205,000	158,439	·87
'53	18,403,000	164,520	·89
'54	18,618,000	159,349	·86
'55	18,787,000	151,774	·86
'56	19,045,000	159,262	·84
'57	19,305,000	159,097	·82
'58	19,523,000	154,500	·79
'59	19,745,000	167,900	·85
'60	20,061,725*	170,305	·85

* Number by the census of 1861.

Thus in 1844, out of every 62 persons one married, and in 1860 one out of every 59; or in other words there was in 1844 one marriage to 125 persons; and in 1860 one to 119 persons. It cannot be doubted that the great improvement in the material condition of the people of this country is exhibited in the progress of lawful unions, and in the decline, slight though it may be, of illegitimacy.

II.—*Of Illegitimacy in the different Counties of England and Wales.*

It is now convenient to examine the state of illegitimacy in the different counties of England and Wales where it will be seen great discrepancies arise. This part of the subject is naturally one of much interest, because no cause occurs readily to account for such discrepancies as are exhibited in the returns. Various tables have therefore been prepared to bring together the different facts and coincidences connected with the subject.

The first table shows—

The Total Number of Illegitimate Children Registered in the Years 1842, 1851, 1857, 1858, and 1859.

Names of Counties.	1842.	1851.	1857.	1858.	1859.
ENGLAND.					
Bedford	316	340	392	394	405
Berks	410	457	487	430	498
Buckingham	343	358	313	319	354
Cambridge	431	467	482	454	472
Chester	1,089	1,274	1,262	1,251	1,257
Cornwall	489	661	651	689	736
Cumberland	632	684	667	790	798
Derby	626	712	703	752	800
Devon	787	935	932	989	1,108
Dorset	346	372	385	368	370
Durham	681	950	1,049	1,099	1,220
Essex	534	778	678	666	681
Gloucester	737	821	770	766	721
Hereford	292	383	314	283	256
Hertford	378	566	382	391	409
Huntingdon	106	126	113	101	128
Kent*	904	982	964	970	1,082
Lancaster	5,592	5,759	5,965	5,851	5,894
Leicester	501	699	638	681	676
Lincoln	756	985	1,109	1,022	1,061
Middlesex*	168	258	219	235	266
Monmouth	227	322	375	349	347
Norfolk	1,214	1,599	1,435	1,430	1,567
Northampton	442	536	470	506	470
Northumberland	594	823	860	884	907
Nottingham	876	955	1,036	1,020	1,044
Oxford	385	453	418	412	420
Rutland	50	49	43	64	49
Salop	614	692	789	743	814
Somerset	854	991	858	894	909
Southampton	663	832	772	790	809
Stafford	1,168	1,675	1,782	1,902	1,808
Suffolk	804	1,002	888	883	960
Surrey*	321	376	346	318	404
Sussex	615	724	725	743	769
Warwick	671	1,023	1,072	1,112	1,091
Westmoreland	152	164	150	156	175
Wilts	525	563	539	499	545
Worcester	752	611	594	656	647
York, East Riding	506	563	715	682	752
„ North „	501	523	561	626	632
„ West „	2,842	3,554	3,878	3,873	3,883
Metropolis	1,925	3,203	3,748	3,752	3,902
WALES.					
North	807	947	915	930	1,027
South	1,170	1,458	1,553	1,580	1,619
	34,796	42,000	43,002	43,305	44,751

* In the above table, Kent, Middlesex, and Surrey, apply to the parts of those counties which are exclusive of the Metropolis. In the returns for 1842 the populous district of Dudley is comprised in Worcestershire, but in the subsequent years it is comprised in Staffordshire.

It is proper to observe upon this table that though there is an increase in the numbers of the illegitimate children registered in these succeeding years there is not an increase in the proportion of illegitimate over the legitimate, as will be seen in p. 221, where it appears that the proportion in 1842 was 6·7, while in 1859 it was only 6·5, though there was actually one-fourth more illegitimate children registered in 1859 than in 1842.

This table though it shows great variations in the numbers in the different counties does not in itself enable the reader to perceive any particular result. But the Registrar-General has caused calculations to be made for several years of the proportions in the different counties between the births of the two classes of children, and the tables published in his reports show the proportions of the illegitimate children to every 100 registered births in the years 1842, 1845, 1851, 1852, 1855, 1859, in the different counties.

Those tables now follow together with two additional columns taken from the Report on the Census for 1851, one of which shows the density of the population in the several counties, and the other the number of persons inhabiting each house therein:—

Number of Illegitimate Births to every 100 Births Registered.

Names of Counties.	1842.	1845.	1851.	1852.	1855.	1859.	Number of Persons to each House in 1851.	Density of Population at 1851.
								Acre to 1 person.
ENGLAND.								
Bedford	7·7	8·3	7·1	8·1	7·8	8·0	5·1	2·4
Berks	7·3	8·1	7·4	7·9	6·9	7·4	5·1	2·7
Buckingham	7·3	7·2	7·3	7·7	6·3	6·9	4·9	2·9
Cambridge	7·2	7·0	7·1	7·4	7·9	7·4	5·0	2·8
Chester	9·4	9·3	8·5	8·3	8·5	7·6	5·3	1·6
Cornwall	4·2	5·1	5·5	5·2	5·1	5·8	5·2	2·5
Cumberland	11·4	11·1	10·5	10·7	10·6	11·4	5·3	5·1
Derby	8·1	8·3	8·0	8·0	7·6	7·7	5·0	2·2
Devon	5·1	5·5	5·4	5·7	5·7	6·2	5·7	2·9
Dorset	6·7	7·1	6·5	7·2	6·5	6·2	5·1	3·4
Durham	5·6	6·3	5·7	6·3	5·6	5·6	6·0	1·6
Essex	5·3	5·7	6·9	7·1	6·0	5·4	5·0	2·9
Gloucester	6·1	6·6	6·3	6·2	5·5	5·2	5·3	1·8
Hereford	10·6	9·7	10·2	10·6	9·9	8·1	4·8	4·6
Hertford	7·0	7·4	7·9	7·7	6·7	7·1	5·1	2·3
Huntingdon	5·1	5·7	5·8	6·3	4·6	6·2	4·8	3·6
Kent	6·3	6·1	6·4	6·6	5·2	6·1	5·7	1·7
Metropolitan	2·8	2·9	2·7	—	—	—	—	—
Lancaster	8·7	8·2	7·2	7·0	6·6	6·6	5·8	0·6
Leicester	7·2	8·7	8·1	8·2	8·0	8·0	4·7	2·2

Number of Illegitimate Births to every 100 Births Registered—Contd.

Names of Counties.	1842.	1845.	1851.	1852.	1855.	1859.	Number of Persons to each House in 1851.	Density of Population at 1851.
								Acre to 1 person.
ENGLAND—*contd.*								
Lincoln	6·3	6·8	7·4	7·7	7·8	7·8	5·0	4·4
Middlesex	4·4	5·6	5·8	4·8	4·5	4·7	7·9	0·1
Metropolitan	3·4	3·8	4·2	4·1	4·0	—	—	—
Monmouth	4·6	5·0	5·3	4·8	4·6	4·7	5·4	2·4
Norfolk	9·9	10·8	11·1	11·4	10·1	10·7	4·8	3·1
Northampton	6·4	6·3	7·1	6·4	5·8	5·7	4·8	3·0
Northumberland	6·8	7·8	7·7	7·7	8·0	7·7	6·3	4·1
Nottingham	9·9	9·8	9·5	9·5	8·8	8·9	4·9	1·9
Oxford	7·5	7·0	8·2	8·0	7·0	7·2	5·0	2·8
Rutland	6·8	7·7	6·6	5·7	7·6	6·7	5·0	4·2
Salop	9·3	10·5	9·9	9·6	9·8	9·8	5·0	3·6
Somerset	6·2	6·7	7·0	6·9	6·3	6·3	5·2	2·4
Southampton	6·4	6·3	6·0	6·8	5·8	5·7	5·3	2·7
Stafford	7·4	7·7	6·7	6·7	6·2	5·9	5·2	1·2
Suffolk	8·1	10·8	8·8	8·1	8·4	8·2	4·9	2·8
Surrey	5·2	6·5	6·3	5·2	4·5	5·0	6·3	0·7
Metropolitan	2·7	3·5	4·0	—	—	—	—	—
Sussex	6·8	7·1	6·7	7·0	6·7	6·8	5·7	2·8
Warwick	5·1	5·6	5·9	5·9	5·4	5·4	4·9	1·2
Westmoreland	9·3	10·2	9·1	10·4	10·0	9·7	5·2	8·3
Wilts	7·3	7·4	7·2	7·4	7·5	7·1	4·9	3·4
Worcester	6·2	6·5	7·1	7·2	6·4	6·4	5·0	1·7
York, East Riding	6·9	7·4	6·7	7·7	7·3	8·0	4·9	3·5
„ North „	8·9	9·0	8·4	8·3	8·6	8·9	4·8	6·3
„ West „	7·1	7·4	6·9	6·7	6·6	6·9	5·0	1·3
Metropolis	—	—	—	—	—	4·2	—	—
WALES.								
South	6·9	8·11	7·4	7·3	7·1	6·4	—	—
North	7·5	8·2	8·1	8·3	7·8	8·1	—	—

From these tables the relative positions of the several counties in reference to the density of their population, and to number of the occupiers of the houses, and the number of illegitimate births appear to be according to this table.

Names of Counties.	Position							
	In regard to Illegitimacy						In regard to the Density of the Population in 1851.	In regard to the Number of Persons to a House in 1851.
	In 1843.	In 1845.	In 1851.	In 1853.	In 1855.	In 1859.		
ENGLAND.								
Bedford	9	10	18	9	12	8	11	5
Berks	12	12	15	11	18	12	13	5
Buckingham	12	16	16	12	23	15	15	3
Cambridge	13	18	18	13	11	12	14	4
Chester	4	7	8	7	8	11	5	7
Cornwall	30	28	30	27	32	23	12	6
Cumberland	1	1	2	2	1	1	24	7
Derby	8	10	12	10	13	10	9	4
Devon	27	27	31	26	27	21	15	9
Dorset	19	17	23	15	21	21	18	5
Durham	24	23	30	23	28	25	5	11
Essex	25	25	20	16	25	26	15	4
Gloucester	23	21	25	24	29	27	7	7
Hereford	2	6	3	3	4	7	24	2
Hertford	16	15	13	12	19	14	10	5
Huntingdon	27	25	29	23	33	21	20	2
Kent	21	24	24	21	31	22	6	9
Lancaster	7	11	17	17	20	18	1	10
Leicester	14	9	11	8	10	8	9	1
Lincoln	21	19	15	12	12	9	23	4
Middlesex*	29	26	29	28	34	29	—	—
Monmouth	28	29	32	28	33	29	11	8
Norfolk	3	2	1	1	2	2	17	2
Northampton	20	23	18	22	26	24	16	2
Northumberland	18	13	14	12	10	10	21	12
Nottingham	3	5	5	6	6	5	8	3
Oxford	10	18	10	10	17	13	14	4
Rutland	18	14	22	26	13	17	22	4
Salop	5	3	4	5	5	3	20	6
Somerset	22	20	19	18	23	20	11	7
Southampton	20	23	27	19	26	24	13	6
Stafford	11	14	21	20	24	22	3	3
Suffolk	8	2	7	9	9	6	13	12
Surrey	26	22	26	27	34	27	2	9
Sussex	18	17	21	17	19	16	14	3
Warwick	27	26	28	25	30	26	3	6
Westmoreland	5	4	6	4	3	4	26	3
Wilts	13	15	17	13	14	14	18	4
Worcester	22	22	18	15	22	19	6	3
York, East Riding	17	15	21	12	15	8	19	5
„ North „	6	8	9	7	7	5	25	2
„ West „	15	15	20	20	20	15	4	4
WALES.								
North	10	12	11	7	12	7	—	—
South	17	11	15	14	16	19	—	—
Highest number	30	29	32	28	34	29	26	12

* The county of Middlesex embracing the Metropolis, is so peculiar in respect of the density of the population and the number of its occupants, that it is omitted from the columns which relate thereto.

With the view of giving an opportunity for referring to the character of the labouring classes in the several counties a table has been prepared from other returns also supplied by the Report on the Census of 1851, showing the distinctions between the town and rural populations in the different counties, and arranged in the order of town population, with the position of the respective counties so arranged in reference to their illegitimacy.

Counties.	Percentage of Town Population.	Percentage of Rural Population.	Number of Towns of 2,000 and upwards.	Position as regards Illegitimacy in 1859.
Lancaster	66	34	32	18
Warwick	65	35	9	26
Gloucestershire	55	45	8	27
Staffordshire	55	45	16	22
Yorkshire, East Riding	55	45	7	8
Sussex	53	47	12	16
Hampshire	49	51	12	24
Northumberland	49	51	6	10
Kent, *extra Metrop.*	48	52	19	22
Cheshire	48	52	12	11
Yorkshire, West Riding	46	54	21	15
Wiltshire	45	55	14	14
Devonshire	45	55	24	21
Cumberland	43	57	11	1
Durham	42	58	9	25
Leicestershire	39	61	8	8
Buckinghamshire	37	63	7	15
Norfolk	36	64	12	2
South Wales	34	66	15	19
Oxfordshire	32	68	6	13
Shropshire	32	68	8	3
Worcestershire	32	68	9	19
Nottinghamshire	32	68	6	5
Cambridgeshire	31	69	8	12
Dorsetshire	31	69	10	21
Somersetshire	31	69	12	20
Berkshire	30	70	10	12
Bedfordshire	30	70	5	8
Suffolk	29	71	10	6
Northamptonshire	28	72	9	24
Monmouthshire	28	72	6	29
Derbyshire	27	73	6	10
Surrey, *extra Metrop.*	26	74	10	28
Essex	26	74	11	26
Lincolnshire	26	74	14	9
Yorkshire, N. Riding	26	74	7	5
Huntingdonshire	25	75	5	21
Herefordshire	25	75	4	7
Westmoreland	25	75	1	4
Hertfordshire	24	76	8	14
Cornwall	22	78	12	23
North Wales	22	78	18	7
Rutlandshire	20	80	2	17
Middlesex, *ex. Metrop.*	14	86	6	29

All these tables exhibit singular results. Some counties show a constantly high rate of illegitimacy, and some as constantly have a low rate; in others, however, there are great fluctuations. Adjoining counties in many instances greatly differ, while in other instances the characters of the neighbourhood are much the same. The relative proportions of the town and rural population do not appear to lead to any corresponding distinction; as, in several counties where the relations are in this respect identically the same, the positions in regard to illegitimacy greatly differ.

In six counties the town population exceeds that of the rural; and five of those are in the lower half of the scale of illegitimacy, and these counties, except the one where the illegitimacy is in the higher half of the scale, contain a large number of great towns. It appears that several of the counties which are high in illegitimacy contain a considerable number of small towns, but on the other hand small towns abound in many of the counties where the illegitimacy is low.

Those counties where the inhabitants are most crowded in their dwellings do not exhibit the highest rate of illegitimacy. Durham, Devonshire, Lancashire, Monmouthshire, Kent, and Surrey, in which the houses are most filled, are low in the scale; while in Norfolk, Herefordshire, Westmoreland, and the North Riding where the illegitimacy is high, the houses are but scantily occupied; at the same time it must be admitted that some of the closely packed counties, such as Suffolk and Salop, are in the upper branch of the scale.

It is, however, to be remarked that, the highest rate of illegitimacy is to be found chiefly in those counties where the population is most spare. Thus again, Cumberland, Hereford, Norfolk, Shropshire, Westmoreland, and the North Riding of Yorkshire, which stand highest in the illegitimacy columns, stand lowest in the column for the density of the population. On the other hand, Lancashire, Middlesex, including the Metropolis, Staffordshire, Warwickshire, and the West Riding of Yorkshire, stand among the lowest in respect of illegitimacy though the population is the densest there.

What is the proper explanation of these discrepancies? Do they depend upon any variation in the morality, or in the extent of education, or in the prudential habits of the different counties? The Registrar-General in his twenty-first and twenty-second Annual Reports gives a table of the proportions and number of marriages in the several counties of England during the years 1858 and 1859, of persons who signed their names, and of persons who married not being of full age.

It may be considered that, with reference to this particular subject, the number of marriages affords a test of morality, the signatures to the marriage register give some fair indication of the progress of education, and the age of marriages testifies to the prudence of the parties, if, as is generally admitted, very early

marriages are not prudent. It will not be necessary to give the tables for both years, that for 1859 will suffice.

Counties.	Marriages to 100 Inhabitants.	Signatures in Writing of 100 Married.		Persons not of Full Age of 100 Married.		Proportion of Scholars in Public Week-day Schools to the Population in 1859.	Illegitimate Children to every 100 Births in 1859.
		Males.	Females.	Males.	Females.		
Bedford	·717	59·9	50·2	12·69	25·19	11·7	8·0
Berks	·669	66·7	71·8	5·32	15·34	9·2	7·4
Buckingham	·639	62·7	61·1	11·00	24·68	10·1	6·9
Cambridge	·620	62·8	62·3	10·16	25·82	13·2	7·4
Chester	·812	71·4	53·4	5·18	16·53	12·7	7·6
Cornwall	·686	66·4	56·3	8·61	20·90	16·2	5·8
Cumberland	·707	78·8	65·9	5·46	16·77	11·2	11·4
Derby	·817	76·2	64·8	7·73	20·54	11·0	7·7
Devon	·783	76·0	70·0	4·75	14·48	12·5	6·2
Dorset	·740	69·1	71·1	6·96	17·05	9·1	6·2
Durham	·912	73·2	57·0	7·49	27·76	14·0	5·6
Essex	·639	63·1	68·4	6·57	21·29	8·7	5·4
Gloucester	·896	74·2	71·2	6·42	15·96	9·6	5·2
Hereford	·686	60·1	68·6	4·53	13·44	11·2	8·1
Hertford	·541	56·4	62·5	8·56	23·56	9·2	7·1
Huntingdon	·629	66·6	63·3	7·11	27·73	9·9	6·2
Kent	·722	75·4	74·1	3·89	20·04	9·8	6·1
Lancaster	1·035	70·5	45·0	7·57	20·64	13·3	6·6
Leicester	·758	72·8	64·0	9·04	19·55	11·9	8·0
Lincoln	·650	75·9	71·8	4·40	20·24	10·5	7·8
Middlesex	·552	78·1	79·2	4·44	14·80	13·0	4·7
Monmouth	·856	53·6	45·2	5·38	18·90	11·3	4·7
Norfolk	·700	64·4	65·2	7·43	18·96	11·3	10·7
Northampton	·815	71·2	63·8	11·28	26·09	9·7	5·7
Northumberland	·870	81·9	69·4	3·91	15·19	15·0	7·7
Nottingham	·935	71·3	57·7	8·77	21·63	13·4	8·9
Oxford	·630	69·5	72·7	5·33	18·74	8·3	7·2
Rutland	·616	74·3	77·6	6·67	12·73	8·6	6·7
Salop	·700	61·4	57·1	4·69	14·50	11·5	9·8
Somerset	·694	68·8	67·1	6·84	15·81	10·5	6·3
Southampton	·842	77·0	77·0	3·70	17·69	10·9	5·7
Stafford	·955	58·3	46·8	10·20	29·14	11·7	5·9
Suffolk	·670	50·3	64·4	6·71	19·80	10·5	8·2
Surrey	·721	74·4	81·2	2·80	14·74	12·0	5·0
Sussex	·685	75·7	80·1	4·19	18·14	11·0	6·8
Warwick	·897	72·1	62·8	7·19	20·92	14·8	5·4
Westmoreland	·644	86·7	76·9	3·16	12·38	7·9	9·7
Wilts	·635	66·3	69·2	7·63	17·49	7·8	7·1
Worcester	·876	68·9	61·4	7·83	22·89	13·2	6·4
York, East Riding	·951	81·9	70·1	5·65	21·88		8·0
„ North „	·962	82·1	71·2	3·86	17·26	} 12·3	8·9
„ West „	·910	73·7	52·1	7·74	24·69		6·9
South Wales	·869	60·8	40·5	5·75	15·78	Not separately given.	6·4
North „	·662	61·3	44·4	4·58	12·00	}	8·1
Metropolis	·963	89·4	80·9	3·05	13·01		4·2
Avge. for England	·849	73·3	62·4	6·20	19·10	1 in 11·82	6·5

The above column for the numbers of scholars attending public schools is taken from the "Report of the Committee on the State "of Popular Education in England," vol. i, part vi, p. 595, and the column as to the relative illegitimacy for 1859 already printed in p. 231, is here repeated.

It appears that the Metropolis exhibits this remarkable result. It is second only as regards the number of the marriages, it is highest as regards the state of education, it is very high with reference to the prudence of its inhabitants, but it is lowest in the scale of illegitimacy.

A like result is not, however, obtained from the table in other cases.

In Cumberland, Westmoreland, Hereford, the East and North Riding of Yorkshire, the illegitimacy is very high, and so is the standard of education, and the prudence in marrying. But in Monmouthshire, Cornwall, Lancashire, Staffordshire, the education is low, the illegitimacy is also low, but there is a high proportion of early marriages. In Norfolk, however, the state of education as regards the men is far below the average though as regards the women it is above it. There the number of men who marry under age is rather above the average, but that of the women is below it. This county has long been distinguished for the high rate of illegitimacy.

Notwithstanding these remarks it is to be doubted, whether any general result can be obtained beyond this, that the want of education is not accompanied with a large comparative amount of illegitimacy. It will be seen hereafter that in the whole kingdom of Scotland, where probably the people are the most educated of any nation in the world, the general rate of illegitimacy far exceeds that of England.

The Registrar-General in his "Fourteenth Annual Report," p. 12, having pointed out the differences of the rate of illegitimacy in different counties observes, "these returns undoubtedly imply "varieties in the state of the family relations, in the social education "of children, and in the morals of the people. But it must not be "immediately assumed, as has been sometimes done, in comparing "the counties of England and Wales, any more than in comparing "the results of our returns with those of other countries, that the "relative morality of the population is expressed by these numbers."

Then having pointed out the child-bearing ages of women as being between 15 and 55, and principally between 20 and 40, he shows in a table the numbers of women *married* and *unmarried* in each county at the two divisions of ages as ascertained at the Census of 1841, and the births of children in each class and the proportional number of children to women.

The following extract from that table is given :—

Registration Divisions.	Proportion of Births, in Wedlock, to 100 Married Women.		Proportion of Births, out of Wedlock, to 100 Unmarried Women and Widows.	
	Under the Age of 40.	Under the Age of 55.	Of the Age of 28—40.	Of the Age of 15—55.
England.........................	35·197	22·470	3·365	1·715
London	30·657	20·420	1·500	·821
South-Eastern counties	35·023	21·920	3·064	1·860
South Midland ,, ...	35·701	22·400	3·946	1·944
Eastern ,, ...	34·572	21·463	4·943	2·462
South-Western ,, ...	36·677	22·020	2·735	1·396
West Midland counties	35·531	22·597	3·707	1·855
North ,, ,, ...	35·978	22·298	4·494	2·213
North-West ,, ...	36·123	23·903	3·757	1·936
Yorkshire	36·608	23·742	4·101	2·018
Northern counties..................	37·781	24·510	4·254	2·086
Monmouthshire and Wales	36·143	22·344	3·517	1·791

Upon this table the Registrar-General, remarks :—

"Excluding London from view as the returns are probably "imperfect, it may be inferred that generally the unmarried women "in the counties south of the Thames, comprising the descendants of "the old Saxon population have few illegitimate children; Wales "stands next in the scale.* The West Midland, the North-Western "and the South Midland counties, covering the area of the ancient "Mercia, present less favourable results; while in Yorkshire, the "Northern counties, the North Midland counties and particularly "the Eastern counties covering the area of the ancient Danish "population, the number of illegitimate children is excessively great." By Mercia it is presumed reference is made to the ancient Britons.

It thus appears that the Registrar-General is prepared to bring forward the subject of race, as having an important bearing in the solution of this problem. But without wholly denying its influence in some respects, and under certain circumstances, it appears difficult to estimate any influence therefrom, after the amalgamation of the races during ten or twelve centuries in this kingdom, upon the conduct of the population.

It may be allowed to make this observation, that though there are, no doubt, considerable bodies of people to be dealt with in England and Wales, yet the counties are so very varying in their extent, and so intermixed among themselves, without any natural

* In the division termed Wales is included the county of Monmouth, which having in itself a low rate of illegitimacy, naturally affects this table as applied to the principality of Wales.

boundaries or proper characteristic distinctions that they do not form good subjects for analytical statistics. And it is also to be remarked that the number of subjects to be examined in some of the counties are but few, which is an important circumstance to be always borne in view when deductions are proposed to be drawn in statistics.

The registration divisions also which diminish the number of the county distinctions are not in themselves uniform either in size or any other general characteristics.

Before concluding this part of the subject it may be thought convenient to distinguish among the different counties the criminal statistics, which have a bearing upon illegitimacy, and the sum of which was given on p. 225.

Counties.	Concealment of Birth, Total Crimes Committed.		Concealment of Birth, Persons Committed (or Bailed) for Trial.		
	1859.	1858.	1859.	1858.	1857.
	No.	No.	No.	No.	No.
Bedford	—	1	—	1	—
Berks	1	3	2	4	—
Bucks	3	2	1	4	2
Cambridge	—	1	—	1	—
Chester	—	4	—	4	—
Cornwall	5	3	5	2	1
Cumberland	2	1	2	1	1
Derby	5	3	5	3	—
Devon	4	8	6	4	—
Dorset	4	2	6	3	1
Durham	—	2	—	2	—
Essex	1	1	2	1	1
Gloucester (inclng. Bristol)	2	3	—	3	6
Hereford	2	1	1	1	2
Hertford	—	2	1	—	2
Huntingdon	—	1	—	2	—
Kent	2	3	2	—	2
Lancaster	9	13	9	7	6
Leicester	—	2	—	2	1
Lincoln	4	8	9	4	6
Middlesex (with London)	16	19	5	6	6
Monmouth	—	1	—	—	1
Norfolk	5	6	3	1	4
Northampton	6	1	4	—	3
Northumberland	4	—	2	1	1
Nottingham	1	2	2	3	—
Oxford	5	4	5	4	1
Rutland	—	1	1	—	1
Salop	—	2	—	2	1
Somerset	7	5	5	3	3

Counties.	Concealment of Birth, Total Crimes Committed.		Concealment of Birth, Persons Committed (or Bailed) for Trial.		
	1859.	1858.	1859.	1858.	1857.
	No.	No.	No.	No.	No.
Southampton	3	—	1	5	3
Stafford	5	5	3	3	4
Suffolk	1	2	—	2	2
Surrey	3	—	4	2	8
Sussex	2	4	1	3	2
Warwick	4	11	2	5	1
Westmoreland	1	2	—	—	—
Wilts	4	3	2	1	1
Worcester	5	7	3	2	5
York	11	6	6	8	8
South Wales	8	3	3	2	—
North „	1	1	1	1	4

Disobeying Bastardy Orders and Prostitutes.—Details for each County.

Counties.	Disobeying Bastardy Orders.		Prostitutes. (Offences against Vagrancy Act.)	
	1859.	1858.	1859.	1858.
	No.	No.	No.	No.
Bedford	8	4	—	1
Berks	14	24	11	9
Bucks	21	17	1	—
Cambridge	13	29	16	6
Chester	144	167	178	124
Cornwall	157	57	63	90
Cumberland	119	97	10	33
Derby	156	126	17	16
Devon	47	36	153	165
Dorset	15	21	21	12
Durham	199	211	216	201
Essex	38	47	3	29
Gloucester (with Bristol)	49	23	162	192
Hereford	70	24	27	20
Hertford	10	81	3	3
Huntingdon	8	6	1	1
Kent	34	53	50	69
Lancaster	1,053	1,184	806	902
Leicester	27	35	2	3
Lincoln	86	135	52	42
Middlesex (with London)	229	285	3,465	6,050
Monmouth	26	38	69	90
Norfolk	58	54	16	23
Northampton	14	17	18	24
Northumberland	86	122	246	198

Disobeying Bastardy Orders and Prostitutes—Contd.

Counties.	Disobeying Bastardy Orders.		Prostitutes. (Offences against Vagrancy Act.)	
	1859.	1858.	1859.	1858.
	No.	No.	No.	No.
Nottingham	75	90	13	10
Oxford	17	25	43	53
Rutland	4	1	2	2
Salop	82	96	11	17
Somerset	58	88	61	34
Southampton	26	37	202	137
Stafford	266	194	186	192
Suffolk	43	40	29	10
Surrey	10	13	7	8
Sussex	31	24	3	7
Warwick	92	70	153	155
Westmoreland	43	37	9	10
Wilts	15	22	8	7
Worcester	31	51	43	48
York	710	896	711	713
WALES.				
Anglesea	19	7	—	2
Brecon	107	79	—	—
Cardigan	4	4	2	—
Caermarthen	115	116	—	10
Carnarvon	9	4	15	12
Denbigh	23	15	1	5
Flint	25	26	2	2
Glamorgan	131	132	185	189
Merioneth	19	12	—	—
Montgomery	43	34	13	15
Pembroke	29	33	—	—
Radnor	13	11	—	4

III.—*Of Illegitimacy in the different Towns of England and Wales.*

It is now proposed to refer to the different towns in England and the Registrar-General's report enables us to obtain results in respect of two years, namely for 1845 and 1857, thus embracing an interval of twelve years.

It is impossible to draw any general result from this table. The principal towns in the counties which are distinguished by their high rate of illegitimacy, exhibit a like character in these tables. Norwich, and Yarmouth in Norfolk, Shrewsbury in Shropshire, Hereford in Herefordshire, Nottingham in Nottinghamshire, are all marked by such high rate. It will be observed, however, that in Birmingham, Bristol, Dudley, Liverpool, Sheffield, and the Metropolis, where the population is very dense, the rate is low.

Such is the case also in the seaports, namely, Portsmouth, Plymouth, Southampton, Liverpool, Hull, Sunderland, and Swansea.

The seats of the two Universities stand in a very fair position, and so also do the two fashionable watering places of Bath, and Cheltenham; though Brighton and Scarborough, which last town besides being a seaport is a very gay place, are unfavourably distinguished.

The manufacturing towns in Cheshire, Lancashire, and the West Riding of Yorkshire, also for the most part exhibit an unfavourable appearance, notwithstanding the density of their population.

	Illegitimate Births.		Total Registered Births.		Proportion of Illegitimates to 100 Born.			
	1845.	1857.	1845.	1857.	1845.	1857.	Increase.	Decrease.
Aberystwith	49	36	759	733	6·5	4·9		—
Ashton	605	346	7,294	4,608	8·3	7·5		—
Bath	129	93	1,895	1,639	6·8	5·7		—
Bedford	72	79	1,160	1,248	6·2	6·3	—	
Berwick-on-Tweed	50	47	782	703	6·4	6·7	—	
Birmingham	253	378	5,646	8,020	4·5	4·7	—	
Bolton	546	443	4,560	5,100	12·0	8·7		—
Brighton	78	153	1,434	2,234	5·4	6·8	—	
Bristol	110	105	2,157	2,133	5·1	4·9		—
Bury	297	240	3,315	3,368	9·0	7·1		—
Cambridge	72	50	848	750	8·5	6·6		—
Carlisle	127	145	1,244	1,482	10·2	9·8		—
Caermarthen	121	118	1,194	1,164	10·1	10·1		
Cheltenham	71	68	1,239	1,200	5·7	5·7		
Cockermouth	95	131	1,153	1,371	8·2	9·6	—	
Coventry	100	115	1,191	1,611	8·4	7·1		—
Derby	101	131	1,309	1,772	7·7	7·4		—
Dudley	220	303	4,031	5,887	5·5	5·1		—
Durham	108	148	1,766	2,810	6·1	5·3		—
Exeter	42	52	801	801	5·2	6·5	—	
Falmouth	43	37	636	640	6·8	5·8		—
Gloucester	60	80	911	1,097	6·6	7·3	—	
Halifax	361	352	4,064	4,466	8·9	7·9		—
Hereford	88	99	958	1,049	9·2	9·4	—	
Huddersfield	388	392	4,355	4,827	8·9	8·1		—
Hull	75	112	1,435	1,910	5·2	5·9	—	
Ipswich	70	81	848	1,269	8·3	6·4		—
Lancaster	71	90	1,057	1,211	6·7	7·4	—	
Leeds	407	525	6,653	8,208	6·1	6·4	—	
Leicester	179	210	2,196	2,442	8·2	8·6	—	
Lincoln	62	121	1,206	1,569	5·1	7·7	—	
Liverpool	402	456	10,103	9,367	4·0	4·9	—	
Macclesfield	225	202	1,992	1,993	11·3	10·1		—
Manchester	500	610	7,860	9,076	6·4	6·7	—	
Merthyr Tydvil	125	215	2,429	4,603	5·1	4·7		—

	Illegitimate Births.		Total Registered Births.		Proportion to 100 Born.			
	1845.	1857.	1845.	1857.	1845.	1857.	Increase.	Decrease.
Newcastle-on-Tyne....	169	263	2,411	3,652	7·0	7·2	—	—
Norwich	211	260	1,733	2,474	12·2	10·5		—
Northampton	60	61	1,155	1,507	5·2	4·0		
Nottingham................	181	279	1,767	2,603	10·2	10·7	—	
Oxford	31	37	597	633	5·2	5·8	—	
Portsmouth...............	106	129	2,469	3,769	4·3	3·4		—
Plymouth...................	53	107	1,335	1,922	4·0	5·6	—	
Preston	331	371	3,171	3,967	10·4	9·4		—
Salisbury..................	21	20	293	302	7·2	6·6		—
Scarborough	65	73	782	919	8·3	7·9		—
Shrewsbury................	49	66	578	723	8·5	9·1	—	
Sheffield	164	297	3,510	5,109	4·7	5·8		—
Southampton	41	74	854	1,614	4·8	4·6		—
Stafford	37	38	603	711	6·1	5·3		—
Stockport..................	287	246	3,218	3,320	8·9	7·4		—
Sunderland	114	140	2,047	3,602	5·6	3·9		—
Swansea	35	77	1,164	1,852	3·0	4·2	—	
Warwick	66	78	1,067	1,222	6·2	6·4	—	
Windsor	29	33	533	560	5·4	5·9	—	
Wolverhampton	194	297	3,206	5,329	6·1	5·6		—
Worcester	55	65	662	863	8·3	7·5		—
Yarmouth	92	75	800	933	11·5	8·0		—
York	111	159	1,507	1,841	7·4	8·6	—	
Metropolis	2,423	3,748	65,884	89,577	3·7	4·2	—	

It appears that the proportion of illegitimate births increased in 25 towns, and in the Metropolis, but it decreased in 31, and in 2 towns it remained the same.

The towns in which the rate was highest in 1857 were Norwich, Nottingham, Macclesfield, and Caermarthen, while it was lowest in Portsmouth, Sunderland, Swansea, Merthyr Tidvil, and the Metropolis.

IV.—*Of the Influence of the Seasons of the Year.*

The Registrar-General has supplied the means from which the following table may be framed of the births in the different quarters of the year. The numbers are of the births registered:—

Year.	Total.	Quarter ending March.	Quarter ending June.	Quarter ending September.	Quarter ending December.
1857............ {	*663,071	170,430	170,444	161,181	161,016
	43,002	11,256	10,583	10,428	10,735
1858............ {	655,481	170,959	169,115	157,445	157,962
	43,305	11,657	11,004	10,496	10,148
1859............ {	689,881	175,532	175,864	168,394	170,091
	44,751	11,584	11,061	10,883	11,223

* The first line shows the number of births of both kinds, the second line that of the illegitimate.

The only result to be obtained from this table is the fact that the greatest number of illegitimate births occur in the first quarter of the year, and the least number, in the third quarter. But the rule is much the same as regards the whole number of births, so that it cannot be alleged that there is anything in the different seasons which affects the relative proportions between legitimate and illegitimate births.

Some variation, however, occurs in regard to the different portions of England in this respect, and the following table shows these variations for the year 1859:—

Divisions.	Total.	March.	June.	September.	December.
London .... {	†89,577	23,434	22,144	21,648	22,351
	3,748	1,029	886	882	951
South-Eastern........ .... {	55,753	14,451	13,925	13,663	13,714
	3,294	885	811	743	855
South Midland .... {	42,325	10,869	10,913	10,281	10,262
	2,799	731	725	635	708
Eastern .... {	36,702	9,647	9,622	8,714	8,719
	3,001	789	803	651	758
South-Western .... {	55,867	14,455	14,415	13,398	13,599
	3,365	935	849	749	832
West Midland .... {	82,552	21,448	20,925	19,867	20,312
	5,316	1,400	1,282	1,309	1,325
North Midland .... {	43,536	11,212	11,219	10,442	10,663
	3,529	965	808	859	897
North-Western .... {	102,472	26,115	26,923	25,100	24,334
	7,227	1,832	1,806	1,834	1,751
York .... {	70,859	17,986	18,478	17,178	17,217
	5,154	1,285	1,266	1,347	1,256
Northern .... {	40,397	10,170	10,517	10,034	9,676
	2,726	673	644	701	708
Welsh .... {	43,031	10,643	11,363	10,856	10,169
	2,843	732	703	714	694

† The first line gives the total number of births, the second line that of the illegitimate only.

In all the divisions except that of York, and the Eastern, Northern, and North-Western divisions, the excess in the number of the births occurred in the March quarter, but in several of the divisions the minimum numbers do not appear in the September quarter.

V.—*Of the difference between the Sexes in Illegitimate Births.*

It is, perhaps, desirable to note the proportion which prevails between the sexes of these children. In the "Sixth Annual Report," the Registrar-General remarks that " the number of boys born is in " all countries greater than the number of girls; and it has been " generally observed that the excess of males is greatest among " legitimate children; but in England the difference appears at " present to be inconsiderable, or not more than 18 in 10,000. In " the lowest terms that express these relations there were 20 boys to " 19 girls *legitimate,* and 21 boys to 20 girls among *illegitimate* " children born alive." This refers to the year 1842. There is no separate returns of the sexes of the illegitimate children for 1843 and 1844.

But in the "Eighth Annual Report," p. 38, there is a table in a note which shows as follows for all England :—

In respect of *all* children born during seven years, 1839-45, the ratio of *males* to *females* was .... 10·515 : 1
In respect of legitimate children born in two years, 1842-45, the ratio was .... 10·510 : 1
Of illegitimate children .... 10·393 : 1

And in the text it is stated that the proportions are in legitimate children nearly 20 boys to 19 girls, in illegitimate children 26 boys to 25 girls.

Again, in the "Thirteenth Annual Report" for 1850, p. 13, the subject is resumed. It is there stated that in that year 104 boys were born in England to every 100 girls, or 26 boys to 25 girls. The Registrar-General remarks, "If the children are distributed into " *two* classes it is found that the boys born *in* wedlock are to those " born *out* of wedlock as 13·78 to 1; while the girls of the corres- " ponding classes are as 13·66 to 1. The reason of the discrepancy " is this,—the excess of boys born *out* of wedlock over girls, 103·38 " to 100, is not so great as the excess of boys among the children " born in wedlock (104·28 to 100)."

In the "Fourteenth Report" for 1851, p. 9, it is recorded that to every 1,000 girls 1,047 boys were born, but to every 1,000 girls born out of wedlock only 1,039 boys were born.

The Registrar-General here states: "The sex of the child is " supposed to be influenced, to a considerable extent, by the relative

" ages of the parents,* but the truth of this cannot be tested by the " English returns."

In the table appended to this part of the Report the exact ratios are shown for the whole of the kingdom to be as follows :—

Males born *in* wedlock to every 100 females so born .... 104·7
   „   *out of*   „   „   .... 103·9

As, however, the examination is carried out through the different counties, the proportions are found to vary considerably, and in twelve counties the proportions in respect of illegitimate children were reversed, there being more females than males born in this class.

In the " Sixteenth Report," p. 12, it is remarked that in the year 1853 the excess of boys among children born out of wedlock was 4·6 in 100, since to 100 girls 104·6 boys were born. This is above the proportion in the previous years; but it appears that there was a general increase, as the ratio of all the boys born in that year to all the girls was nearly 105 to 100, or 21 boys to 20 girls.

Subsequent Reports show the following figures :—

| Years. | Legitimate. | | Illegitimate. | |
	Boys.	Girls.	Boys.	Girls.
1854	104·4	100	106·1	100
'57	105·2	100	104·1	100
'58	104·4	100	106·2	100
'59	104·5	100	105·7	100

The twelve counties in which the proportions were reversed in the year 1851 were:—

*Surrey.	*Norfolk.	Lancashire
*Berks.	Wilts.	Yorkshire, East Riding
Bucks.	*Rutland.	„ West „
Cambridge.	*Notts.	*Westmoreland.

In 1857 an excess of females over males occurred in fifteen counties, namely in—

*Surrey.	Northamptonshire.	Warwickshire.
Hants.	Bedfordshire.	*Rutlandshire.
*Berks.	*Norfolk.	*Notts.
Middlesex.	Cornwall.	Derbyshire.
Herts.	Hereford.	*Westmoreland.

* This remark is repeated in the " Sixteenth Annual Report," p. 10.

Of these counties eight appear in the former list.

M. Quetelet "Recherches sur la Population," in 1827, pointed out that the relation of male to female births in France was 1,000 to 938, and in the Netherlands 1,000 to 945; and M. Edouart Smits, in the same year, "Statistique Nationale," p. 21, showed that the average for ten years in the Netherlands was 1 male to ·9427 females, while he observes that in different parts of Europe it was almost everywhere as 1 male to ·9545 females.

No distinction is here made between legitimate and illegitimate births.

M. Legoyt reports of the year 1857, in the "Annuaire de "l'Economie Politique, &c.," that the number of children born in France was 105·39 males to 100 females legitimate, but only 103·24 males to 100 females illegitimate. He shows that a similar result existed in previous years, and observes that this singular fact, which must be considered as one of the laws attending the progress of population in all countries, remains still inexplicable.

But in England it will be seen that, though in some years this rule prevailed, in later years the proportions between the sexes have been greater in favour of the males among the illegitimate than among the legitimate births; and in Belgium, as shown above,* in 1858, the total number of female illegitimate children born alive exceeded those of the male by 3.

This subject is discussed by the Registrar-General of Scotland in his "Second Annual Report," where he deals with the Statistics for 1856. He observes, "that in Scotland, while the legitimate births "yielded 105·2 males to every 100 females, the illegitimate yielded "106·1 males to every 100 females; or the proportion of males to "females was higher than among the legitimate births. This was "strikingly the case with regard to the insular districts. There, while "the legitimate births yielded 107·7 males to 100 females, the illegiti- "mate births were in the proportion of 114·2 males to 100 females." In the midland and rural districts the proportion was 104·9 legitimate and 105· illegitimate males to 100 females; in the town districts it was 105·4 and 107·5 illegitimate males to 100 females.

It is also noticed in the Prussian statistical tables abstracted by Sir F. Goldsmid, already referred to, and published in vol. xxiii of the *Journal*, at p. 203. There an hypothesis is started by the editor of the tables, that the fruit of a first pregnancy is oftener female than male, and if this be a statistical fact it would explain the smaller preponderance of males among illegitimate children, most of whom are the fruits of first pregnancies. The editor of the tables remarks, however, that the smaller preponderance of males among the illegiti-

* See p. 224.

mate children has no constant proportion. This is also shown by the previous observations.

The statistical fact is not yet established, though it seems to be one quite capable of proof; and taking all the information together, it is impossible at present to lay down any general rule as regulating the proportion between the sexes in illegitimate births as varying from that which generally prevails in legitimate births.*

VI.—*Of Pauper Illegitimacy.*

The previous remarks have applied to the general illegitimacy of children born in this country every year; it is now proposed to examine the amount of that illegitimacy which exists amidst the lowest classes of society, being that which falls for relief upon the poor rate. This difficulty occurs in reference to any general comparison between the general and the pauper illegitimacy. The Registrar-General's Reports give the number of children born in the course of every year, but the Poor Law Board's Reports can only show who are relieved on a particular day in the year; so that, though the latter show how many illegitimate children were relieved on the 1st of July in any given year, they cannot show whether such children were born in that year, or in any antecedent year within fifteen. On the other hand, illegitimate children born in the same year, though destitute and chargeable before or after the 1st July, but not so on that particular day, will not appear in these reports. Nevertheless, if a series of years be taken and compared together in the two reports average results may be fairly eliminated.

Comparing the table on p. 221, which shows that the general illegitimacy is about 6·5 per cent. upon the population, with the table printed hereunder, which gives the pauper illegitimacy at about 1·6 upon the population, it follows that the amount of illegitimacy in all classes of society above the very lowest is about 4·9 per cent.

It will be remembered that great alterations in the law regarding pauper bastardy took place in the years 1834 and 1844. In 1834, by the 4th and 5th Wm. IV., cap. 76, the power of proceeding against the putative father of a bastard child prior to its birth and chargeability was abolished, and the guardians of the union or parish in which the child, when born, became chargeable, were authorized to obtain an order at the quarter sessions upon the putative father for reimbursement of the expenses of its relief, though such order was not to be obtained upon the uncorroborated testimony of the

* Nevertheless, the physiological facts referred to in the note on p. 225, offers some explanation of the facts stated by M. Legoyt. If there be more male still-born among the children of *primipara*, and the illegitimate children abound most in first pregnancies, it is easy to infer a preponderance of female illegitimate children over the ordinary proportion between the sexes at birth.

mother, who was also relieved from all penal consequences in regard to her conduct. A less costly and more frequent tribunal, namely, the petty sessions, was substituted by the Statute 2nd and 3rd Vict., cap. 85. But in 1844 an entirely new plan was introduced. The guardians and the parish officers were deprived of all power of interference, and to the mother alone was given the right of obtaining for herself an order of justices to compel the putative father to pay a weekly contribution towards the maintenance of her child, whether she was relieved from the poor rates or not.

The consequences which resulted from the alteration of the law by the Poor Law Amendment Act of 1834, is shown by a table set out in the "Third Report of the Poor Law Commissioners," Appendix, p. 323, which exhibits the difference between the number of bastards chargeable at the time when the new law was introduced, and that which existed after the expiration of two years. The table contains the returns in the order of the counties, and points out the positions of those counties with reference to the bastardy, the population, and the pressure of the poor rate in them respectively.

It will appear in a subsequent part of this paper, but it is here to be stated generally, that the total number for England and Wales of bastards chargeable in the year ending 25th March, 1835, was 71,298, while in the year ending 25th March, 1837, that is two years afterwards, the total number was 45,135. The reduction was 37 per cent. This is, doubtless, to be attributed greatly to the general improvement which then took place in the management of the relief to the poor. Of course, the bastards chargeable in 1837 were not all new-born children, inasmuch as many of those chargeable in 1835 continued to be so for some years afterwards.

The progress of pauper illegitimacy was not so distinctly shown from 1837 to 1846 as could be desired. The Annual Reports of the Poor Law Commissioners give returns of the paupers chargeable during the quarter of the year ending 25th March, from which the following table is framed, referring, however, to the out-door poor only:—

Number of Unions.	Years.	Number of Illegitimate Children.	Number of the Mothers.
531	1839	6,291	5,148
—	'40	6,751	5,376
578	'41	5,900	4,886
584	'42	6,486	4,941
585	'43	7,210	5,361
—	'44	7,907	5,908
—	'45	6,741	5,028
—	'46	6,660	4,974

These reports do not supply any information as to the number of these classes of paupers maintained in the workhouses of the unions. But a Parliamentary Paper of the House of Commons, No. 115, of the year 1841, shows the number of female inmates and children in 535 unions in the year 1840, from which it appears that the number of legitimate children was 36,895, of illegitimate 12,861; and the number of mothers of bastards was 5,156, and of other women 14,011. If these numbers be added to the out-door paupers above enumerated for 1840, the number of illegitimate children will be 19,612, that of the mothers will be 10,532. It must be noticed that the number of unions is not exactly even, there being four unions more in the list of in-door paupers above that of the out-door, so that probably the number of children may be stated as about 20,000, and that of their mothers at 11,000.

The population of the 535 unions is given in the Parliamentary Paper as 10,709,155; and since the population in 1841 was very nearly 16,000,000, it is obvious that this computation as to the number of illegitimate paupers was very much below the full amount for the whole of England and Wales.

The numbers are here given for a quarter of a year, and therefore it will not be correct to compare these numbers with those of 1835 and 1837 above-stated, without making allowance for the difference in the period of the calculation. It will be seen, however, by the table itself, that there was a diminution in the numbers from the year 1839 to 1846, since the 531 unions of the former year show 5,148 mothers against 4,974 in the 585 unions of the latter year; and in the former there were 6,291 bastards to 6,660 in the latter, where there was, indeed, an excess, but not in proportion to the excess in the number of unions and the increase of the population during seven years.

It will be remembered, that though the alteration in the system of the bastardy laws above referred to was made by the legislature in 1844, it did not come into effect until the subsequent year.

Although, as noticed, there is no information as to the year 1847, a complete account has been supplied of the progress, or it may be rather said the decline, of pauper bastardy by the returns of the Poor Law Board in their annual reports from 1849 to 1860, which enable us to obtain this table. See "Eleventh Annual Report, "Poor Law Board," pp. 196, 198.

Years.	Number of Unions.	Estimated Population comprised therein in Millions.	Total Paupers Relieved.	Illegitimate Children.			Total Illegitimate Children.	Percentage on Population.	Percentage on Number of Paupers.	Mothers of Illegitimate Children Relieved out of the Workhouse.
				Of Non-able-bodied Workhouse Inmates.	Of Able-bodied Workhouse Inmates.	Out-door Paupers.				
Jan., 1849	587	14,760,	934,128	1,116	8,159	7,753	17,028	·12	1·8	5,247
July, „	587	14,850,	836,300	937	6,805	6,897	14,639	·10	1·8	4,421
Jan., 1850	590	14,947,	882,711	965	7,877	7,055	15,897	·11	1·8	4,503
July, „	593	15,195,	798,290	913	6,354	6,152	13,419	·09	1·7	3,920
Jan., 1851	595	15,382,	831,430	1,087	7,470	5,862	14,419	·09	1·7	3,703
July, „	597	15,474,	785,759	950	6,333	5,536	12,819	·08	1·6	3,518
Jan., 1852	597	15,567,	803,875	981	7,349	5,478	13,808	·09	1·7	3,453
July, „	597	15,668,	766,757	960	6,355	4,994	12,309	·08	1·6	3,133
Jan., 1853	598	15,790,	768,516	989	7,251	4,501	12,741	·08	1·7	2,894
July, „	611	16,325,	733,518	989	5,856	4,274	11,119	·07	1·5	2,640
Jan., 1854	614	16,526,	807,735	1,122	7,929	4,410	13,461	·08	1·7	2,811
July, „	619	16,901,	790,107	1,021	7,207	4,477	12,705	·08	1·6	2,912
Jan., 1855	620	17,019,	841,636	1,100	8,435	4,993	14,528	·09	1·7	3,069
July, „	623	17,245,	812,070	1,047	7,123	4,910	13,080	·08	1·6	3,097
Jan., 1856	624	17,455,	877,767	1,136	8,927	5,310	15,373	·09	1·8	3,281
July, „	624	17,560,	796,582	1,034	6,715	4,576	12,325	·07	1·5	2,890
Jan., 1857	624	17,665,	843,806	1,169	8,596	4,632	14,397	·08	1·7	2,860
July, „	628	17,930,	790,059	920	6,383	4,458	11,761	·07	1·5	2,748
Jan., 1858	629	18,075,	908,186	1,082	8,263	5,072	14,417	·08	1·6	3,124
July, „	629	18,225,	794,190	931	6,229	4,288	11,448	·06	1·4	2,571
Jan. 1859*	629	18,375,	831,684	1,050	7,306	3,997	12,353	·07	1·5	2,478

* Since this paper was read, I have obtained this return for 1st January, 1861. Number of unions the same; total paupers, 851,689; illegitimate children, in-door, 9,143; out-door, 3,487; total, 12,630. Mothers, out-door, 2,221. Percentage of illegitimate, on number of paupers, 1·48.—W. G. L.

It is, doubtless, known that the Poor Law Commissioners established in 1847 a mode of determining the correct pauper census in every year by causing all those in receipt of relief to be numbered on two fixed days in every year. This system was established in a certain number of unions and parishes in that year, and has been since extended to others. Hence, in the above table, the returns in the first instance apply to 587 unions, comprising a population of nearly 15 millions, while the last returns apply to 629 unions, including the estimated population of 18½ millions; the total estimated population of England and Wales for the year 1858 being 19⅓ millions.

The system came into operation during 1848, and therefore the first return is given for 1st January, 1849. The days selected for the census are the 1st January and the 1st July; and it will be seen that the numbers are always less in July than in January, but this is in accordance with the general rule as to the pressure of pauperism.

Though there is some fluctuation in the numbers during the period of ten years described in that table, which coincides with the fluctuation of the general pauperism of the country, there is, nevertheless, a steady decline from ·12 to ·07 per cent. on the population, and from 1·8 to 1·5 on the total number of the paupers relieved in the parts of the country to which this table applies.

It will be observed that the children are classed as in-door and out-door, and the former are divided into the children of non-able-bodied adults and of able-bodied adults. The reduction in the numbers of in-door illegitimate children is not very great, because that number is generally determined by the capacity of the work-houses. In a large part of the kingdom the unmarried mothers of illegitimate children can only be relieved in the workhouse. Consequently, in the unions where that regulation prevails those women and their offspring are congregated principally in the workhouse. Nevertheless, even as regards this class, there is a very considerable reduction, namely, from 9,275 in 1849, to 8,356 in 1859,—a reduction of nearly 1,000. But as regards the out-door poor of this class the reduction is very much larger. The number of illegitimate out-door children relieved with their mothers has fallen from 7,753 in 1849, to 3,997 in 1859,—a reduction to the extent of 3,756 children; while the mothers of such children relieved out of the workhouse in 1849 was 5,247, but in 1859 only 2,478,—much less than one-half.

It is to be remembered also that this comparison is made, not with the same number of unions, but with an increased number against the smaller, so that the actual reduction, if the complete comparison could have been made, would have been greater.

It is fair to consider that this great reduction is to be attributed to the general rules established since the passing of the Poor Law Amendment Act in the great part of country which, by restricting relief to the mothers of illegitimate children to the workhouse, operates to check their submission to the illicit intercourse which now brings not a shame nor a penalty in the shape of a punishment, but most irksome restrictions if they seek relief from the poor rate. While the ready mode of obtaining a contribution from the father of the child for its maintenance now established, not only keeps the mother and child from the pauper-roll, but tends to control the indulgence in the fathers of passions which

lead to these consequences. It will not fail to be noticed, that though the pauper bastardy has largely decreased, the proportion of the general bastardy has not increased.

It is here, perhaps, not uninteresting to examine the state of pauper bastardy in the different counties, as the general bastardy therein has been already shown. From the Reports of the Poor Law Commissioners are obtained the number of affiliations immediately before and shortly after the Poor Law Amendment Act, and the number of orders in bastardy made under the statute of 1844 during the year 1857, are obtained from the Parliamentary Paper, No. 55, of 1861.

The following are the results :—

Counties.	Number of Bastards Affiliated in the Year ended March 25, 1835.	Number of Bastards Affiliated in the Year ended March 25, 1837.	Number of Orders in Bastardy, made in the Year 1857.	Population in 1841.
Bedford	83	24	78	107,936
Berks	89	4	56	164,147
Buckingham	96	35	77	155,983
Cambridge	230	122	62	164,459
Chester	329	169	334	395,660
Cornwall	365	226	43	341,279
Cumberland	113	54	222	178,038
Derby	204	78	168	272,217
Devon	453	156	85	533,460
Dorset	311	126	39	175,043
Durham	163	164	326	324,284
Essex	198	106	105	344,979
Gloucester	337	77	92	431,383
Hereford	235	128	43	113,878
Hertford	45	21	20	157,207
Huntingdon	66	13	26	58,549
Kent	216	41	137	548,337
Lancaster	1,206	151	1,040	1,677,054
Leicester	136	103	65	215,867
Lincoln	451	286	299	362,602
Middlesex	318	85	344	1,576,636
Monmouth	60	45	83	134,335
Norfolk	537	191	190	412,664
Northampton	325	118	64	199,228
Northumberland	164	54	192	250,278
Nottingham	168	42	190	249,910
Oxford	171	64	71	161,643
Rutland	26	14	7	21,302
Salop	345	106	71	239,048
Somerset	575	183	75	435,982
Southampton	135	48	84	355,004
Stafford	274	57	270	510,504
Suffolk	311	119	126	315,073
Surrey	263	23	154	582,678
Sussex	164	19	No return	299,753

Counties.	Number of Bastards Affiliated in the Year ended March 25, 1835.	Number of Bastards Affiliated in the Year ended March 25, 1837.	Number of Orders in Bastardy made in the Year 1857.	Population in 1841.
Warwick	305	68	84	401,715
Westmoreland	69	16	64	56,454
Wilts	356	45	71	258,733
Worcester	127	23	150	233,336
York, East Riding	233	98	146	233,257
York, North Riding	235	91	155	204,122
" West "	757	269	1,089	264,734
Total of England	11,244	3,862	6,997	14,995,138*
Total of Wales	1,137	546	648	911,603
	12,381	4,408	7,645	15,906,741

* The population of the several counties in 1851 is shown in a table which is printed on the next page.

It appears, that though the orders in bastardy which, however, oftentimes prevent dependance on the poor rates, in general had thus largely increased over the orders of affiliation in 1837, they are still very far below the orders obtained in 1834, though the population has been greatly extended.

Some observations occur upon this table. The county of Hereford is remarked throughout this paper for its high rate of illegitimacy, yet the number of orders in bastardy in 1857 are very small. The same is the case with Salop, whereas Cumberland, Northumberland, Nottinghamshire, and Westmoreland, and the North Riding, where the illegitimacy has been shown to be high, there is a corresponding increase in the number of orders of bastardy. Norfolk and Suffolk are in this respect nearly stationary.

It is now proposed to distribute the pauper bastardy among the labouring classes by means of the tables of industrial statistics supplied by the Poor Law in their "Tenth Annual Report," Appendix. In those tables are shown the registration divisions of the country, and the proportions of the different classes of the labouring population, as derived from the census of 1851, and by carrying out against those divisions the numbers of illegitimate paupers relieved in the different unions on the 1st July, 1858, the percentage in the several unions of this pauperism is obtained, together with the proportions of the several classes of the labouring poor.

This is the table :—

Registration Divisions and Union Counties.	Population, 1851.	INDUSTRIAL STATISTICS. Ratio per Cent. of Persons Aged 20 Years and upwards, occupied in				IN-DOOR POOR. Illegitimate Children under 16.	
		Mechanical Arts, Trade, and Domestic Service.	Agriculture.	Manufactures.	Mining and Mineral Works.	Of Able-bodied Inmates.	Of not Able-bodied Inmates.
THE METROPOLIS.							
Middlesex (part)	974,277	47·9	1·0	7·8	3·5	246	90
Surrey ,,	482,435	45·6	1·6	6·0	3·4	168	42
Kent ,,	134,200	35·8	2·8	2·7	3·1	31	—
Total	1,590,912	46·3	1·3	6·8	3·4	445	132
SOUTH-EASTERN.							
Surrey (part)	194,278	32·5	20·5	2·6	2·4	103	12
Kent ,,	484,297	29·7	19·9	2·7	2·2	246	44
Sussex	248,690	26·1	28·8	2·0	3·0	200	13
Southampton	349,339	30·1	17·7	2·5	2·2	215	26
Berks	199,106	28·9	26·7	2·7	2·3	109	9
Total	1,475,710	29·5	21·8	2·5	2·4	873	104
SOUTH MIDLAND.							
Middlesex (part)	150,606	35·5	15·1	2·5	3·2	50	3
Hertford	173,953	26·6	25·9	8·4	2·3	99	7
Buckingham	143,492	23·6	26·6	15·3	2·0	76	6
Oxford	169,823	28·8	26·7	4·0	2·7	83	10
Northampton	210,489	31·4	24·3	7·5	2·3	102	21
Huntingdon	60,319	23·7	30·8	3·2	2·9	27	2
Bedford	129,668	27·3	26·9	15·7	2·0	38	6
Cambridge	191,800	25·4	29·7	1·6	2·3	75	1
Total	1,230,150	28·3	25·4	7·1	2·4	550	56
EASTERN.							
Essex	344,077	26·3	26·9	3·9	2·0	194	12
Suffolk	335,780	26·0	28·6	3·5	2·3	189	11
Norfolk	365,199	26·0	29·2	2·4	2·4	265	8
Total	1,045,056	26·1	28·3	3·3	2·3	648	31
SOUTH-WESTERN.							
Wilts	231,538	19·4	31·2	7·1	2·2	198	1
Dorset	177,057	28·1	25·1	4·6	3·4	124	21
Devon	570,446	31·0	22·2	4·8	3·0	288	46
Cornwall	355,392	23·5	20·2	1·7	15·5	171	34
Somerset	456,136	32·4	22·6	5·0	4·3	229	53
Total	1,790,569	28·5	23·4	4·6	5·6	1,010	155
WEST MIDLAND.							
Gloucester	419,492	35·7	15·5	6·0	3·6	195	35
Hereford	98,917	26·3	33·2	2·4	2·5	45	5
Salop	226,231	23·3	28·0	2·0	8·5	126	11
Stafford	629,329	23·5	11·1	2·9	23·1	165	32
Worcester	257,144	29·5	16·1	4·5	13·9	96	9
Warwick	442,267	32·5	11·3	9·7	11·5	116	10
Total	2,073,380	28·9	15·6	5·2	12·7	743	102

Population, 1851.	Out-door Poor, Illegitimate Children.	Total Number of Illegitimate Children.	Mothers of Out-door Illegitimate Children.	Percentage of Total Pauper Illegitimate Children to Population.	Registration Divisions and Union Counties.
					THE METROPOLIS.
974,277	349	685	165	·07	Middlesex (part)
482,435	175	384	71	·08	Surrey ,,
134,200	103	134	64	·10	Kent ,,
1,590,912	627	1,203	300	·08	Total
					SOUTH-EASTERN.
194,278	7	122	3	·06	Surrey (part)
484,297	22	312	13	·07	Kent ,,
248,690	17	230	18	·09	Sussex
349,339	138	379	77	·11	Southampton
199,106	9	127	8	·06	Berks
1,475,710	193	1,170	119	·08	Total
					SOUTH MIDLAND.
150,606	1	54	1	·04	Middlesex (part)
173,953	7	113	6	·06	Hertford
143,492	23	105	18	·07	Buckingham
169,823	22	115	13	·07	Oxford
210,489	17	140	15	·07	Northampton
60,319	3	32	2	·05	Huntingdon
129,668	6	50	6	·04	Bedford
191,800	33	129	19	·07	Cambridge
1,230,150	112	738	80	·06	Total
					EASTERN.
344,077	19	225	12	·07	Essex
335,780	40	240	29	·07	Suffolk
365,199	131	404	85	·11	Norfolk
1,045,056	190	869	126	·08	Total
					SOUTH-WESTERN.
231,538	47	246	32	·11	Wilts
177,057	17	162	12	·09	Dorset
570,446	155	489	128	·09	Devon
355,392	19	224	12	·06	Cornwall
456,136	52	334	41	·07	Somerset
1,790,569	290	1,455	225	·08	Total
					WEST MIDLAND.
419,492	72	302	35	·07	Gloucester
98,917	14	64	5	·06	Hereford
226,231	55	191	25	·08	Salop
629,329	23	220	19	·03	Stafford
257,144	27	132	14	·05	Worcester
442,267	19	145	12	·03	Warwick
2,073,380	210	1,054	110	·05	Total

Registration Divisions and Union Counties.	Population, 1851.	INDUSTRIAL STATISTICS. Ratio per Cent. of Persons Aged 20 Years and upwards, occupied in				IN-DOOR POOR. Illegitimate Children under 16.	
		Mechanical Arts, Trade, and Domestic Service.	Agriculture.	Manufactures.	Mining, and Mineral Works.	Of Able-bodied Inmates.	Of not Able-bodied Inmates.
NORTH MIDLAND.							
Leicester	234,164	42·3	17·9	4·4	3·7	109	6
Rutland	24,214	25·2	30·8	1·8	3·1	22	1
Lincoln	397,637	26·0	30·6	1·5	3·5	180	27
Nottingham	293,331	36·7	16·7	9·5	5·0	87	26
Derby	259,965	26·0	16·7	12·3	10·2	28	52
Total	1,209,311	31·8	21·7	6·4	5·3	426	112
NORTH-WESTERN.							
Chester	420,074	27·6	16·0	16·0	4·4	120	10
Lancaster	2,055,781	30·2	6·7	22·6	5·5	364	92
Total	2,475,855	29·8	8·3	21·5	5·4	484	102
YORK.							
West Riding	1,162,572	23·0	10·3	23·1	8·8	185	40
East ,,	250,779	34·5	18·5	4·0	3·1	97	7
North ,,	187,728	27·2	31·5	2·3	4·4	82	12
Total	1,601,079	25·4	14·2	17·5	7·3	364	59
NORTHERN.							
Durham	411,538	27·3	9·6	2·8	17·6	48	12
Northumberland	303,489	30·3	15·0	2·8	10·7	78	11
Cumberland	195,210	25·2	25·6	8·1	7·1	118	11
Westmoreland	58,387	24·9	33·5	7·6	3·2	51	—
Total	968,624	27·7	16·1	4·2	12·4	295	34
WELSH.							
Monmouth	177,130	22·0	14·9	1·8	20·7	48	13
South Wales	607,111	22·2	24·7	2·1	12·4	188	23
North ,,	383,962	21·0	31·7	3·3	9·0	155	8
Total	1,168,203	21·8	25·5	2·5	12·5	391	44
Totals of Unions, &c., in England and Wales	16,628,849	29·9	17·0	8·5	6·5	6,229	931

The summary exhibits this result:—

In one division the percentage of illegitimacy is			....	·04
,, two	,,	,,	....	·05
,, three	,,	,,	....	·06
,, four	,,	,,	....	·08
And in one division (Wales)	,,		....	·12

In this table the Metropolis, which as was shown above is low in

Population, 1851.	Out-door Poor, Illegitimate Children.	Total Number of Illegitimate Children.	Mothers of Out-door Illegitimate Children.	Percentage of Total Pauper Illegitimate Children to Population.	Registration Divisions and Union Counties.
					NORTH MIDLAND.
234,164	20	135	14	·06	Leicester
24,214	1	24	1	·10	Rutland
397,637	14	221	11	·06	Lincoln
293,331	22	135	15	·05	Nottingham
259,965	18	98	5	·04	Derby
1,209,311	75	614	46	·05	Total
					NORTH-WESTERN.
420,074	39	169	22	·04	Chester
2,055,781	814	1,270	420	·06	Lancaster
2,475,855	853	1,439	442	·06	Total
					YORK.
1,162,572	464	689	263	·06	West Riding
250,779	7	111	3	·04	East ,,
187,728	29	123	17	·07	North ,,
1,601,079	500	923	283	·06	Total
					NORTHERN.
411,538	30	90	18	·02	Durham
303,489	214	103	129	·03	Northumberland
195,210	19	148	16	·08	Cumberland
58,387	15	66	8	·11	Westmoreland
968,624	278	407	171	·04	Total
					WELSH.
177,130	23	84	17	·05	Monmouth
607,111	361	572	261	·09	South Wales
383,962	576	739	391	·19	North ,,
1,168,203	960	1,395	669	·12	Total
16,628,849	4,288	11,448	2,571	·07	Totals of Unions, &c., in England and Wales

the general scale of illegitimacy, is high as regards the pauper illegitimacy. But in this division the class of persons engaged in mechanical arts, trade, and domestic service, greatly predominate.

The mining counties of Durham and Northumberland, which form part of the Northern Division with those of Cumberland and Westmoreland, so remarkable for their high rate of illegitimacy, bring the general average of the division down to the lowest figure. A similar

3·0
6·4
8·0

effect is produced in the South-Western Division by the insertion of the county of Cornwall, and in the West Midland Division by the counties of Stafford, Worcester, and Warwick.

The Welsh Division is peculiar. It is made up of the county of Monmouth, where the illegitimacy is very low in consequence of the large amount of the mining population and of the two Divisions of Wales, North and South. In the latter, where there is a large amount of mining population, the average of illegitimacy would be moderate; but in North Wales, where the agricultural labourers abound, the ratio is very high, namely, 19 per cent.; and thus the whole registration division ranges so far above all the others.

As a general rule, it will be seen that in those counties where the proportion of agricultural labourers is high the rate of illegitimacy is same, and such is the case as regards domestic servants, though they are mixed up with the mechanical and trading labourers and artisans, which is altogether a very comprehensive class.

VII.—*Of Illegitimacy in Scotland.*

The condition of Scotland, with reference to the subject of this paper, is greatly elucidated by the general registration established by the Statute 17 and 18 Vict., cap. 80.

In vol. xiv of the *Journal* of this Society is a valuable paper compiled by Dr. Stark, upon the Vital Statistics of Scotland, and his fifth division relates to *births.* As his paper was composed in 1850, the data upon which he formed his conclusions are isolated and scanty. He begins by remarking, that "the state of the registers of "births in Scotland is a disgrace to any country." See p. 67. He then continues:—

"The only use which I found could be made of the registers of "births was to ascertain the proportion of illegitimate children; and "as the result is curious in itself, and is the only fact of the kind "extant relative to Scotland, it seems worthy of being put on "record.

"In seventy-nine parishes there were among the members of the "Established Church 4,305 births, and of these 328 were *illegitimate,* "being in the proportion of 1 illegitimate birth in every 13·12 "births," or 7·8 per cent.

It appears now that the number of births in Scotland are about 100,000 annually, therefore, the number which came under the scrutiny of Dr. Stark was a very small proportion of the whole of the births in Scotland. Moreover, it does not appear from what parts of Scotland he derived his information.

The Registrar-General of births, deaths, and marriages in Scotland has presented to Parliament returns which give a less favourable result than that above detailed by the learned author.

From those returns, and from the first and second complete registration reports, the following table is compiled. It shows the births of illegitimate children as distinguished from the legitimate for the years 1856 and 1859 as follows:—

	Population.			1856.			1859.		
	1851.	1861.	Acreage.	Total Births.	Illegitimate Births.	Percentage of Illegitimate Births.	Total Births.	Illegitimate Births.	Percentage of Illegitimate Births.
SCOTLAND	2,888,742	3,061,329	20,047,462	101,821	8,695	8·5	106,732	9,606	9·0
Divisions.									
Northern	127,035	130,518	2,651,769	3,455	183	5·2	3,462	190	5·5
North-Western	174,735	167,180	4,739,867	4,505	249	5·3	4,783	279	5·8
North-Eastern	348,366	366,607	2,429,594	11,405	1,622	14·2	12,087	1,824	15·1
East Midland	514,907	523,419	2,784,119	16,802	1,562	9·2	17,181	1,695	9·9
West Midland	243,506	242,418	2,678,220	7,542	554	7·3	8,179	593	7·3
South-Western	881,092	1,008,080	1,431,875	38,557	2,674	6·9	40,479	2,939	7·3
South-Eastern	383,217	409,024	1,210,788	12,925	1,025	7·9	13,767	1,181	8·6
Southern	215,884	214,083	2,121,221	6,630	826	12·4	6,794	905	13·3
Counties. NORTHERN.									
Shetland	31,078	31,678	} 988,873	{ 825	34	4·0	847	41	4·8
Orkney	31,455	32,416		788	38	4·8	785	26	3·3
Caithness	39,782	42,304	455,708	1,258	96	7·6	1,251	99	7·9
Sutherland	24,720	24,120	1,207,188	584	15	2·5	579	24	4·1
N.-WESTERN.									
Ross and Cromarty	83,781	82,301	2,016,375	2,265	86	3·7	2,383	96	4·0
Inverness	90,954	84,879	2,733,501	2,240	163	7·2	2,400	183	7·6
NORTH-EASTERN.									
Nairn	8,076	8,349	137,500	236	15	6·3	241	24	10·0
Elgin (or Moray)	40,862	44,215	340,000	1,318	151	11·4	1,465	181	12·4
Banff	51,023	56,040	437,219	1,815	257	14·1	1,910	316	16·5
Aberdeen	213,466	223,154	1,260,625	7,049	1,072	15·2	7,424	1,175	15·8
Kincardine	34,939	34,849	252,250	987	127	12·8	1,047	128	12·2
EAST MIDLAND.									
Forfar	193,632	206,983	586,730	6,984	739	10·5	7,261	791	10·9
Perth	136,305	132,780	1,814,063	3,729	398	10·6	3,771	395	10·5
Fife	153,789	154,806	322,031	5,174	342	6·8	5,157	394	7·6
Kinross	9,626	8,729	49,531	239	23	9·6	269	38	14·1
Clackmannan	21,555	20,121	29,744	676	60	8·8	723	77	10·7
WEST MIDLAND.									
Stirling	84,861	88,273	295,875	2,995	236	7·8	3,459	255	7·4
Dumbarton	46,995	54,181	189,844	1,815	130	7·1	1,947	154	8·0
Argyll	95,042	83,776	2,083,126	2,325	163	7·0	2,338	149	6·4
Bute	16,608	16,188	109,375	407	25	6·1	435	35	8·0

	Population.			1856.			1859.		
	1851.	1861.	Acreage.	Total Births.	Illegiti-mate Births.	Per-centage of Illegiti-mate Births.	Total Births.	Illegiti-mate Births.	Per-centage of Illegiti-mate Births.
S.-WESTERN.									
Renfrew..............	157,950	168,593	150,000	6,281	399	6·3	6,538	442	6·8
Ayr	189,973	199,051	650,155	7,323	645	8·8	7,981	672	8·4
Lanark	533,169	640,436	631,719	24,953	1,630	6·5	25,960	1,825	7·0
SOUTH-EASTERN.									
Linlithgow	30,590	39,245	64,375	1,314	104	7·9	1,603	130	8·1
Edinburgh...........	259,493	273,965	254,300	8,638	637	7·3	9,036	754	8·3
Haddington	36,363	37,615	185,937	1,250	118	9·4	1,264	111	8·8
Berwick.................	36,165	36,489	309,375	1,047	94	8·9	1,122	101	9·0
Peebles	10,804	11,300	226,488	337	37	10·9	368	38	10·3
Selkirk	9,802	10,410	170,313	339	35	10·3	374	47	12·6
SOUTHERN.									
Roxburgh	51,225	53,712	460,938	1,658	162	9·7	1,641	178	10·8
Dumfries	78,167	79,503	722,813	2,487	338	13·5	2·450	334	13·6
Kirkcudbright	43,103	38,830	610,734	1,117	141	12·6	1·417	193	13·6
Wigtown	43,389	42,068	326,736	1,368	185	13·5	1·286	200	15·6

The total births for 1858 were 104,195; of this 9,260 were illegitimate, so that the percentage of illegitimacy was 8·8.

The above table shows, that in 1859 it was 9·0. In 1860 the total births were 105,704, the illegitimate 9,631, percentage of illegitimacy 9·1. According to the return lately published by the Registrar-General for 1861 the total births were 107,636, of these 9,856 were illegitimate, and the percentage was 9·2.

Hence we have this result—

1856 .... 8·5	1860 .... 9·1
'58 .... 8·8	
'59 .... 9·0	'61 .... 9·2

During the last session of Parliament the Registrar-General of Scotland presented his first detailed report for the year 1855. It contains the report made to him by Dr. Stark, now the Deputy-Registrar for Scotland, and a considerable portion of that very able document is devoted to the subject of illegitimacy in Scotland. The second report, namely that for the year 1856, has been presented in this session, and contains another report of the like character.

In these reports Dr. Stark divides the population into three classes, *insular, mainland,* and *town.* The first term applies to those who reside in the islands of Scotland, the second to those who reside in the rural districts of the mainland, including the smaller towns

with less than 10,000 inhabitants; and the third to those who reside in the larger towns and districts connected therewith.

Dealing with the years 1855-56, the population is thus estimated:—

	1855.	1856.
Insular.....................	166,487	163,533
Mainland...............	1,764,378	1,739,195
Town	1,075,093	1,072,307
Total	3,005,958	2,975,035

The births are ascertained to have been for 1855—

	Total Births.	Illegitimate Births.	Percentage of Births to Population.	Percentage of Illegitimate to Total Births.
Insular	3,733	162	2·24	4·3
Mainland	53,347	4,589	3·02	8·6
Town...........................	36,269	2,606	3·37	7·1
Total	93,349	7,357	3·10	7·8

For 1856—

	Total Births.	Illegitimate Births.	Percentage of Births to Population.	Percentage of Illegitimate to Total Births.
Insular	4,320	240	2·64	5·5
Mainland	56,705	5,375	3·26	9·4
Town...........................	40,796	3,082	3·80	7·5
Total	101,821	8,695	3·42	8·5

It has been shown above that in the later years the rate of illegitimacy has been greater than appears by these tables, and, therefore, as Dr. Stark himself remarks, many illegitimate births escaped registration during the commencement of that measure.

However, dealing with the figures as supplied, he remarks in the first report, that " the proportion of illegitimate births in the several " counties varied very much, for while those included in the Northern " and North-Western Divisions of Scotland only furnished 4·6 per

" cent. of the births as illegitimate, the proportion of illegitimate
" births was 11·9 per cent. in the counties included in the Southern
" Division, and 13 per cent. in those included in the North-Eastern
" Division." These proportions are lower than those shown by the
tables for 1859.

It being admitted that the proportion of illegitimate births is
very high, it is stated that much crude theory has been started in
the endeavour to account for the fact, though Dr. Stark observes,
" that as yet we seem to be as far as ever from the solution of the
" problem; and this, probably, in a great measure from the circum-
" cumstance that we have only got at one of the numerous facts
" which bear on the case." He then proceeds to endeavour to
collect others.

His first important fact is, that in Scotland the illegitimate births
are almost solely confined to the labouring classes, the mothers
consisting chiefly of women employed in farm or agricultural labour,
of factory girls, domestic servants, and persons engaged in needle-
work.

He remarks upon the greater tendency to illegitimacy in the
North-Eastern and Southern Divisions than in the manufacturing and
mining counties constituting the South-Western Division, and this
remark is reiterated in the Second Report.

To some extent this distinction prevails in England.

He notices that few or no illegitimate births occur among the
fishing villages, a fact which is scarcely corroborated by the English
returns.

But this is a remarkable result of his investigation, that " the
" counties which show the highest proportion of illegitimate births
" are the counties which are in the highest condition as to education;
" and on the other hand, the counties which produce the fewest
" illegitimate births are those whose education is at the lowest ebb."
He offers this explanation: "that while the counties in which
" illegitimacy was at a low ebb abounded in improvident marriages
" the superior educational acquirements, and consequent more
" thoughtful habits engendered thereby, prevented these improvident
" marriages in the counties where illegitimacy was high, but that
" unfortunately the moral training had not been carried so far as to
" enable them to master their natural passions." In the Second
Report, the existence of this fact is again observed upon.

He remarks in the first report, that "the same apparent close
" connection is not observed in England to anything like the same
" extent." But a reference to the tables above, prepared for the
different counties of England, will tend to confirm the view expressed
by the Registrar-General as to Scotland.

He refers to the county of Lanark, where, as he says, only 6·5

per cent. of the births were illegitimate, but the marriages amounted
to 85 in every 10,000. In this ill-educated county, then, there
appeared to be scarcely any check on marriages; it may therefore
safely be inferred that improvident marriages were common, and the
natural consequence was, that the proportion of illegitimate births was
very small indeed. " From this it will be seen that we feel inclined
" to attribute no small proportion of the illegitimacy to the inconti-
" nence of youth, which in some counties finds its legitimate channel
" in marriage, though it may be in improvident marriage, while in
" others the prudential check operates so strongly that it results in
" illegitimacy."

This is corroborated, to a great extent, if the tables are referred
to above, which show the state of illegitimacy in Lancashire, and the
West Riding of Yorkshire, and in Cornwall.

Dr. Stark further elucidates this conclusion by referring to the
rural population, in which he finds illegitimacy to be most common.
Upon this point he remarks, that " it is not the large farms (which
" are comparatively few in number), and where the labourers lodge
" in bothies, but the small farms, which are laboured by the tenants
" themselves, or with the aid of one or two male or female assistants,
" who sleep in the house or offices, and are treated in all respects as
" one of themselves, which furnish the great proportion of illegiti-
" mate births in the rural districts."

It is probable that a minute investigation of the state of the rural
population in the counties of England, where the illegitimate rate is
highest, would go far to support this conclusion.

Before quitting the subject, Dr. Stark observes, that " in the
" country, at least, the great amount of illegitimacy is not properly
" ascribed to vice." He explains this by showing " that the parents
" of many of the illegitimate children are cohabiting as married
" persons, are true to each other, and are rearing a family."

Then why don't they marry? It is suggested, by some regis-
trars that if the parents, without trouble or expense, could register
their marriages in some simple form, these cases of concubinage
would cease. Other registrars advert to the high proclamation fees
which induce parties to cohabit without going through the form of
marriage rather than pay what they consider an exorbitant demand.

These appear to be very insufficient explanations.

" But," Dr. Stark adds, " the high proportion of illegitimacy is
" attributed by others to the too easy law of marriage in Scotland,
" especially in so far as regards the subsequent legitimation of the
" child. They think that that law conduces to increase illegitimate
" births, inasmuch as the woman knowing that the child which may
" be born will sustain no legal damage if she should succeed in
" getting its father subsequently to marry her, yields herself too easy

" a prey to him, taking her chance that the birth of a child will
" secure his consent to the marriage. For these, and other reasons,
" certain parties have endeavoured to raise an agitation for an
" alteration of our marriage laws; and should such ever be done, it
" is to be hoped that no changes will be rashly made till their whole
" bearings on this important subject shall have been fully con-
" sidered."

In this hope every one will readily concur, so that no rash legis-
lation may take place with reference to a system which affects so
greatly the interests and feelings of society. But it may be per-
mitted to introduce here the observations of Dr. Stark, from the
volume already referred to. He observes, " I cannot but regard the
" Scottish laws relative to legitimacy as both wise and just; that the
" subsequent marriage of the parents legitimizes all the children born
" before marriage. I hold it to be one of the crying evils of the
" English law that no amount of repentance of the parents, and no
" subsequent marriage, can legitimate the offspring before the
" marriage. Scotland is a standing proof that the allowing children
" to be legitimized by the subsequent marriage of their parents is
" not found to have any hurtful effects on the morals of the people;
" and as this is both an enlightened and a moral mode of reducing
" the proportion of the illegitimate among the general population, I
" hope the day is not far distant when we shall see our legislators
" assimilate the English laws on this point to those of Scotland."

This language is much stronger than that used by this expe-
rienced statist after the exact knowledge which he has obtained of
the actual state of his countrymen.

So far as the disabilities which accompany illegitimacy arise from
the provisions of the law, they may certainly be removed by an
alteration of that law, but it is impossible to make a legitimatized
child the same in all respects as one legitimate when born. The
proportion of the births cannot be altered; and when it is seen that
the proportion of illegitimate births in England is only 6·5 per
cent., which is a third less than what it is in Scotland, it is by no
means certain that our legislators would feel themselves justified in
adopting that law of Scotland so much praised by Dr. Stark, which
our sturdy ancestors, in their ancient parliament, rejected with the
emphatic indignation of national feeling.

On the other hand, when the tables hereafter set forth, which
show the illegitimacy of foreign countries are regarded with atten-
tion, it will occur to many that where the law of legitimization by
subsequent marriage prevails, the rate of illegitimacy is higher than
in those countries which, for the most part, reject this law.

It is certainly grateful to our feelings to allow all possible con-
siderations to repentance and to reparation of injuries, but as a

matter of sound policy it seems to be better to remove all tempta-
tions and palliative pretexts which excuse the commission of offences,
and it is to be feared that the hope of a subsequent marriage, and
the legal effect thereof upon the offspring may too often induce a
woman to submit to that conduct which in its first consequences
produces distress and shame.

VIII.—*Of Illegitimacy in Ireland.*

Of the state of illegitimacy in Ireland the author can give no
account. He cannot find any authentic information of it, there being
as yet no registration of births in that country; and he believes that
there has been no attempt to compare the baptismal registers in the
Protestant churches and the Catholic chapels. Some information as
to the mothers of illegitimate children relieved in the workhouses is to
be found in the reports of the Irish Commissioners, but no statistical
use can be made of it.

IX.—*Of Illegitimacy in Foreign Countries.*

It is now proposed to make some comparison between the illegi-
timacy in this country with that in the other States of Europe as far
as it has been practicable to the author of this paper. He has
obtained the information which follows from the " Sixth Annual
" Report" of the Registrar-General, from the Statistical Tables pre-
sented to Parliament in 1857-61, parts iv, v, and vii, and from the
" Annuaires de l'Economie Politique, et de la Statistique," par
MM. Block et Guillaumin. It is necessary to premise that these
returns are open to some objections, as supplying accurate data for
comparison. They are collected for different years, and some
instances are only averages of years, in others they are aggregate
for several years. It is not certain how they have been obtained
returns, whether the births have been ascertained from registers of
births or of baptisms, and some of the returns include still-births
while others exclude them.

However, with all this uncertainty as to the complete correctness
of the returns, the following information may be properly laid before
the Society:—

Country.	Year.	Births. Legitimate.	Births. Illegitimate.	Percentage of Illegitimate to Total Births.	
Austria........{	1842 '51	792,890 1,251,551	101,821 120,800	11·38 8·96	Still-births included ,, excluded
Bavaria ....{	1838–39 '51–52 '56–57	118,456 122,547 124,006	30,729 32,930 36,292	20·598 } 21·18 } 22·64 }	Still-births included
Belgium ....{	1842 '50 '55 '59	128,781 120,107 116,096 138,701	9,354 11,309 9,851 11,115	6·772 } 9·4 } 7·7 } 7·4 }	Still-births excluded
Denmark........	1835–39	58,356	6,020	9·351	
Finland	1857	51,649	3,831	6·91	
Hanover ....{	1842 '55	50,072 49,969	5,487 5,485	9·876 9·89	
Holland ....{	1854 . '59	100,113 110,837	4,131 4,732	3·96 } 4·09 }	Still-births excluded
Norway ....{	1831–35 '51 '55	169,252 40,809 44,855	12,111 4,090 4,583	6·678 9·11 9·27	
Prussia ....{	1841 '53 '58	549,376 612,937 668,574	42,129 47,185 61,596	7·122 7·15 } 8·44 }	Still-births included ,, excluded
Sardinia	1828–37	1,427,019	30,474	2·091	
Saxony........{	1841 '53 '58	59,582 70,870 75,716	10,512 11,261 14,399	14·997 } 13·71 } 15·98 }	Still-born included
Sweden ....{	1831–35 '51 '55	445,410 100,459 104,269	31,289 10,606 10,803	6·59 9·55 9·39	
Switzerland	1850–51–52	66,100 Average	3,900 Average	5·9	
Tuscany	1853	65,757	3,965	6·	
Wurtem- burg........{	1842 '57	66,597 53,980	8,859 10,340	11·74 16·08	

Mr. Hendriks has lately supplied this Society with much valuable information regarding the Statistics of *Spain*, and in his memorandum, published at p. 476 of vol. xxiii, he gives these figures for the baptisms in Spain.

	Total Number of Children.	
	1858.	1859.
Males, *legitimate*	266,221	271,962
Females ,, ...	249,897	253,281
	516,118	525,243
Males, *illegitimate*	15,337	15,793
Females ,, ...	14,703	15,287
	30,040	31,080
	546,158	556,323

The proportions of illegitimate to the total number of births were 5·5 in 1858, and 5·6 in 1859. The total population of Spain in 1857 was 15,464,340. These tables, therefore, show the result of the examination for the whole of that country exhibit a favourable view of the conduct of the inhabitants. But it must be observed, that here the tables are derived from the baptisms of the children; and it has been already shown that the baptismal registers in this country gave very erroneous results.

In the statistical returns for the island of *Sicily*, published by the " Direzione Centrale di Statistica por la Sicilia," an account is given for that island as follows, for the year 1856:—Total births, 87,992; of these were illegitimate, 3,281 males and 3,306 females; total 6,587, or 7·37 per cent. of the whole.

Dr. Schleisner, in his Essay on the Vital Statistics of *Iceland*, published in vol. xiv of the *Journal* of this Society, gives a return of the illegitimate births in that island. At p. 9 several tables are set forth, from which it appears that he ascertained the average number of births during the years 1838-47 to be annually 2,054, of these the average number of illegitimate births was 280, or the high rate of 14 per cent. It must, however, be observed, that the numbers dealt with are but small.

The condition of *Sweden*, in reference to this subject, has been fully detailed in Mr. Hendriks' paper upon the Statistics of that country, *ante* p. 132 where he shows that while in the two periods of observation, 1776-80 and 1780-85, the percentage of illegitimacy was only 3·11, in the last quinquennial period published, namely 1851-55, it had attained exactly three times that ratio, or 9·33 per cent.

The state of *Prussia*, in reference to this subject, has been brought under the notice of the Society in the paper read by Sir F. Goldsmid, already referred to in vol. xxiii, p. 202, where,

however, the returns are only brought down to the year 1849. It is shown, in p. 206, that there was little variation in the proportions between legitimate and illegitimate births between the years 1816 and 1849, in both of which years there was 1 illegitimate child born out of every 13 or 14, though in the interval there had been occasional variations. But it appears, by the tables presented above, that there is an increase in the ratio in the years from that time, as in 1858 the ratio is expressed 8·44 to 100, or about 1 in 12.

The editor of the tables referred to in that paper, pointing out that in the kingdom of Prussia there are great differences between the different governmental divisions, remarks, that in those where the proportion of the illegitimate births is the least the laws do not give to the mothers of illegitimate children a legal remedy against the fathers, or at least do not facilitate proceedings for that purpose, as is done in other provinces.

In England, the legal remedy conferred upon the mothers by the law of 1844, seems, according to the previous remarks in the present paper, to establish a different result.

It is further shown, by the Prussian tables, that in towns "the " proportions are more unfavourable than in the country, where, at " least oftener than in town, the fault of illicit intercourse is " repaired, as far as may be, by subsequent marriage."

In regard to *France*, this information is obtained from the Registrar-General's Report, the Statistical Tables above referred to, and the "Annuaires de l'Economie Politique, et de la Statistique."

Year.	Births.		Percentage of Illegitimate to Total Births.
	Legitimate.	Illegitimate.	
1842	912,963	69,928	7·114
'50	891,407	69,970	7·8
'55	838,147	64,189	7·11
'56	883,828	68,288	7·17
'57	869,819	70,890	7·53
'58	894,710	74,633	7·8

M. Legoyt, in the "Annuaire de l'Economie Politique, et de la " Statistique," for 1860, remarks that the agglomeration of the population has a marked influence on the number of illegitimate unions, and consequently upon the births which result from them ; and then he gives this analysis for the whole of France in respect of the year 1857.

	Illegitimate. Births.	Total Births.	Ratio of Illegitimate to 100 Births.
Department of the Seine	15,013	56,131	26·75
Urban population	29,008	241,490	12·01
Rural ,,	26,869	643,088	4·22
The whole of France	70,890	940,707	7·53

He observes, that the number of illegitimate children is low in the country, but nearly three times greater than in towns.

In regard to the department of *la Seine*, which comprises the city of Paris, the number of these children is, he states, there altogether *exceptional.* It is by no means clear in what sense he uses this term.

He continues to remark, that, to explain these differences between the towns and the rural parts, a certain number of the illegitimate births registered in the towns do not belong to the resident population. Many of the countrywomen come into the towns to lie-in there, and the places near the towns furnish the hospitals with a remarkable number of the foundlings who are yearly received therein.

This is an explanation which is often rendered. It is difficult for us in this country, to dispute the fact. So far as the density of the population might afford opportunities for concealment it might be expected that the result would be the same in England as in the towns on the Continent. But it has been shown above to be very different. The effect of the foundling hospitals cannot be tested by us, inasmuch as none such exist in the large towns in England.

M. Legoyt then makes this observation:—" The comparison of " 1857 with the preceding years shows that the increase in the " number of the illegitimate births only occurred in the rural popu- " lation, there having been a decrease in the other classes. This " may have been an accident ; but if it should be confirmed by the " results of the following years it would give rise to very grave " reflections. It would become necessary," he says, "to examine " whether this increase did not coincide with the removal of the " manufactures from the towns into the country." In the "Annu- " aire" for 1861, he observes, that this result is again obtained from the returns for 1858. This class of children had scarcely increased in the towns, and it had diminished in the department of *la Seine*, but there was an increase in the kingdom generally.

M. Legoyt points out a distinction which prevails in France between illegitimate children, *recognised* and *not recognised.* The former are expressly acknowledged by one or other of the parents at the time of registration, or by some act in their first year. The latter

are only described as illegitimate by the witness of the birth giving the name of the father or mother. He supplies this table of the illegitimate children for 1858.

	Recognised.	Not Recognised.	Percentage of Recognised.
Department of la Seine	4,138	11,092	27·17
Town population.......................	7,317	22,599	24·53
Rural „	12,127	17,330	41·16
The whole of France	23,612	51,021	31·63

This eminent statist continues, in his commentaries on the subject in the volumes of the " Annuaire," to associate illegitimacy with the density or the agglomeration of the population.

It cannot be said that the examination of the state of England previously made confirms his views as universally true.

To facilitate the deduction of any inferences which may be drawn from the state of the marriages and the density of the population in the different countries under this present review, the following table is extracted from the Statistical Tables parts iv and v, and from some other sources :—

Country.	Year.	Population.	Density of Population. Average to One English Square Mile.	Number of Marriages.	Proportion to Population.
Finland	1857	1,693,023	12	11,995	One in 141
Sweden	'57	3,687,033	22	27,253	135
Norway	'55	1,490,047	12	12,009	124
Denmark....................	'60	2,605,024	119	20,142	129
Prussia....................	'58	17,739,913	165	167,387	106
Hanover	'58	1,843,976	124	14,428	128
Bavaria	'57	4,615,748	156	28,820	160
Saxony	'58	2,122,148	373	19,752	107
Wurtemburg	'58	1,690,898	227	—	—
Holland	'59	3,494,161	280	27,007	129

M. Legoyt, in the " Annuaire," supplies this information for—

Country.	Year.	Population.	Density of Population. Average to One English Square Mile.	Number of Marriages.	Proportion to Population.
France........................	1857	36,039,364	256	295,510	One in 122

From the " Annuario Estadistico de Espana," 1860 :—

Country.	Year.	Population.	Density of Population. Average to One English Square Mile.	Number of Marriages.	Proportion to Population.
Spain	1859	15,464,340	78	112,903	One in 137

The Registrar-General for Scotland gives this information for—

Country.	Year.	Population.	Density of Population. Average to One English Square Mile.	Number of Marriages.	Proportion to Population.
Scotland	1856	2,975,035	92	20,740	One in 144

And from the previous part of this paper the same is obtained for—

Country.	Year.	Population.	Density of Population. Average to One English Square Mile.	Number of Marriages.	Proportion to Population.
England	1851	16,921,888	332	146,484	One in 114

Little result can, however, be obtained from these comparisons. In Saxony the population is very dense, the number of marriages is considerable, yet the illegitimacy is very great. In Holland the illegitimacy is very low; the population is, however, very dense; the marriage-rate is moderate. In Bavaria the marriage-rate is the lowest, the density of the population is moderate, the illegitimacy is, however, very high. In Spain the marriage-rate is low, so also is the density, and also the rate of illegitimacy.

In Scotland the density is very low, the marriage-rate is only not so low as in Bavaria, and the rate of illegitimacy is high. In England the density is very great, the marriage-rate is high, and the illegitimacy is low.

Referring, now, to the returns for the different countries thus collected together, it will be seen that the following is the order of the several countries, beginning with the smallest in amount of illegitimacy :—

Sardinia.	Belgium.	Denmark.
Holland.	Sicily.	Sweden.
Spain.	France.	Hanover.
Switzerland.	Prussia.	Iceland.
Tuscany.	Austria.	Saxony.
England.	Norway.	Wurtemburg.
Finland.	Scotland.	Bavaria.

Of Sardinia, which is placed first, the account is so remote that it is not fairly placed in the list, and probably some of the other countries might be differently ranged as regards their immediate neighbours if the returns were all taken for the same period; but the general position would remain much the same.

The gradation is remarkable. It cannot be said that the religion which prevails in the respective countries affords any satisfactory explanation. The most Catholic country stands high on the list, another closes it. Some of the Protestant countries are placed high while others are nearly at the bottom.

In the Prussian returns above referred to this is remarkably illustrated. In vol. xxiii, p. 208, there is a table distributing the illegitimate births for several years among the religions existing in that country, and it is there shown that in 1849 *one* illegitimate birth occurred for the following numbers of legitimate births among:—

Protestants.	Catholics.	Mennonites.	Jews.
10·78	16·35	57·88	40·09

The two latter columns, of course, apply to a very few instances.

The editor of those returns rejects all inference that the religious belief is the real cause of the difference by referring to the high rate of illegitimacy in countries and cities principally, if not exclusively, Catholic.

But it is to be observed, that in those countries which contain populations of different religions the rate of illegitimacy is high, and probably some influence must be attributed to the difficulties attending marriages between persons of the different religions who form attachments, which through those difficulties cannot end in marriage but result in illicit unions.

Again, it is understood that in some Continental States marriages are either directly or indirectly prohibited until the parties can establish, to the satisfaction of a proper functionary, that they have obtained for themselves the means of maintaining their offspring. This frequently fails, concubinage follows instead of marriage, and the offspring is illegitimate.

Whether there is any principle of moral sentiment which, recognising Morganatic or left-handed marriages among the highest ranks tolerates more vulgar unions, though not marriages, in the commonalty, is a question which deserves grave consideration.

The prohibition of divorces in those countries where it exists, doubtless, has an influence upon the progress of illegitimacy, as the nature of mankind cannot be controlled by the civil laws to such entire subjection as to compel the continued intercourse of man and

wife, when inveterate discord has arisen between them. The results are necessarily separations in fact, and the formation of other unions, from which an illegitimate progeny arises. If legal divorces lead to any evil of a different nature it seems difficult to deny that they tend to check illegitimacy.

It has been seen that in England and Scotland the rate of illegitimacy is raised by the state of the rural population against the metropolis and the large towns. But on the Continent the case is different. There, for the most part, the general rate is greatly affected by the high rate of the capitals and principal cities. It will be interesting to examine this proposition.

In a previous page (239) have been shown the numbers of illegitimate births in all the large towns of England and Wales, a few of the cases are repeated here; the account of the other places is taken from the Registrar-General's "Sixth Annual Report," p. 36, and some other sources.

Names of Places.	Date.	Total Number of Births.	Illegitimate.	Percentage of Illegitimate to Total Births.
London (Metropolis)	1845	65,884	2,423	3·7
Birmingham	'45	5,646	253	4·5
Liverpool....................	'45	10,103	402	4·
Manchester	'45	7,860	500	6·7
Leeds	'45	6,653	407	6·4
Genoa	'38	33,034	2,665	8·07
Berlin	'40	29,914	4,472	14·95
Frankfort..................	'42	3,784	652	17·23‡
St. Petersburg	'28–9	9,625	1,809	18·80
Turin	'38	36,313	6,867	18·91
Stockholm	'31–5	13,291	5,409	40·70
Glasgow .... {	'56*	15,170	1,049	7·0
	'61†	16,536	1,435	8·6
Edinburgh*...............	'56	5,289	403	7·6
Madrid (as given by Mr. Hendriks, *ubi supra*) .... }	'59	10,817	2,357	21·8
Barcelona..................	'59	6,163	747	12·1
Paris .... {	'42	40,005	11,527	28·21
	'57	56,131	15,013	26·75
	'58	57,793	15,230	26·35

* From the Registrar-General for Scotland, "Second Report," pp. 17, 18.
† Dr. Strang's "Statistics of Glasgow for 1861.
‡ Still-born not included.

A decrease is shown in regard to Paris; whether it is casual or regular is a question at present not capable of solution.

From the Statistical Tables, part v, the following extraordinary figures are obtained :—

	Year.	Legitimate Births.	Illegitimate Births.	Percentage of Illegitimate to the Total Number of Births.
Vienna...........................	1851	10,228	10,963	51·7
Milan	'51	4,513	2,328	31·0
Venice............	—	3,629	648	15·2
Prague...........................	—	3,461	3,035	46·7
Pesth	—	4,513	878	16·2
Lemberg	—	1,300	1,355	51·0
Trieste...........................	—	2,738	923	25·2
Florence	1853	26,545	2,364	8·2
Palermo *......................	'56	6,580	785	10·6
Messina *......................	'56	3,913	539	12·

* From the Sicilian returns above referred to.

The state of Vienna is most remarkable. In the Report of the Registrar-General a return was printed for the years 1834-37-39, when the total number of births was shown to be 47,191, of illegitimate 21,763; showing a proportion of 46·12 illegitimate to 100 total. In twelve years the above return is given for the year 1851, and shows a percentage of 51·7 of illegitimate births; so that more than one-half of the children born in that year at Vienna were illegitimate. The state of Lemberg was almost as bad, and Prague was little better. Where the state of the population is such, little effect can be produced by the operation of moral sentiment. The mothers cannot be influenced by shame, and the children cannot be affected by any sense of degradation; but unless there be no distinction in the civil rights resulting from illegitimacy there must arise great embarrassments, and oftentimes grievous injuries, from so large a proportion of baseborn children.

A question naturally arise as to what causes the vast disproportion between the metropolis and large towns of England and the principal cities of the Continent and the neighbouring kingdom of Scotland?

Some writers refer to the existence of the foundling and maternity hospitals which exist in many of those cities; but they do not exist in all of them, and certainly there is no lack of hospitals and workhouses in London where the poor pregnant woman may be delivered, while the vast circuit of this metropolis affords the amplest opportunities of retirement and concealment.

In the "Annuaire de l'Economie Politique, et de la Statistique " pour 1858," p. 190, a return is given of the number of births in Paris during 1856.

It appears that, in all there were 37,697 births, of these 11,749 were illegitimate, 5,835 occurred in the hospitals, 5,914 at the homes of the mothers. It is shown in p. 240 that during that year 3,943

children were admitted into the Foundling Hospital; 3,042 were deposited at the time of birth, 901 were more of advanced age. Of these, 196 came from other hospitals, 3,084 were born at their homes in Paris, and 564 came from without the city.

674 were supposed to be legitimate, 3,269 were presumed to be illegitimate.

It is then stated, that of 3,383 mothers who were known, only 551, or about one-sixth, were born in the department of la Seine; of of the others, 2,550 *belonged* to other departments, and 282 to foreign countries.

There is an ambiguity here as to what is meant by *belonging*. Some mothers may have been born in Paris, others out of it, but may have resided there for a long period of time, and in the sense of domicile may be said to have *belonged* to that city.

But it is to be remarked, that as 5,835 births occurred in the hospitals, and about 3,000 were received into the Foundling Hospital, no less than 8,835 out of the 11,749 may be considered as being fostered by these institutions.

On referring to the Registrar-General's Report for 1856, it will be seen that the total number of births for that year in London was 87,430; of which 3,646 were illegitimate. There were then 46 workhouses, 13 general hospitals, and 4 lying-in hospitals in the metropolis. Some cases of illegitimate births might have occurred in the general hospitals, but the lying-in hospitals are provided for married women only.

Is any explanation to be derived from the extent of public and private prostitution? Of course, this social evil may be reasonably expected to stay the progress of population, and consequently would have an effect upon the illegitimate as well as the legitimate births. But it does not account for the great disproportion which exists between the English metropolis and large towns and the Continental cities. Dr. Stark, in his report to the Registrar-General for Scotland (Second Report, p. 14), remarks, " The fact stares us in " the face, that in the Continental towns where illegitimacy attains a " dimension which it is to be hoped will never be witnessed in this " country, the so-called social evil exists to an extent quite unknown " in this country, and instead of tending to lower the proportion of " illegitimate births, greatly increases it." He also illustrates his remark by an examination of the state of Glasgow and Edinburgh.

It will not be denied that there is a large amount of prostitution and concubinage in this great metropolis; but great as it is it cannot explain the enormous difference between the rate of illegitimacy therein and that of Vienna, Paris, Stockholm, St. Petersburg, Frankfort, and Madrid.

No answer can be given at present to the inquiry.

It is necessary, indeed, that great care should be used in forming any conclusions upon the subject. Long and minute investigations will be required by the philosophical statist who undertakes the task of solving the problem which is raised by the cursory examination of the tables produced annually or periodically by all civilized nations. Political, moral, religious, social, legal, and natural conditions bear upon the question, while accidental circumstances, and the variations in the modes of obtaining and recording the facts must not be overlooked in the comparison requisite for correct and sound deductions.

It is, however, most satisfactory to perceive, that though in almost all other countries where an opportunity is given of tracing the rate for successive years there appears to be a gradual increase in the rate of illegitimacy that rate has remained stationary, or rather with a slight decline, in England for the last twenty years, while the marriage-rate, on the contrary, has there very sensibly risen.

Much of this improvement may be due to the judicious legislation of the last thirty years, which has rendered the celebration of marriage more simple in point of legal form,—has removed what, to some persons, created violations of conscience in the performance of the ceremony,—and has dealt in a more salutary and effectual manner with the serious grievance of pauper bastardy.

But it is reasonable to assume that the great improvement in the material condition of all classes of society for many years, the peace and calm which has existed in this country for nearly half a century, —and the bright examples of our queen and her consort, now so deeply deplored, distinguished by their domestic virtues and the purity and decorum of their lives,—have tended to preserve England from following the downward course which so many countries of Europe appear to be pursuing.

Let us hope that the attention which has been paid to the education of children now growing up to manhood and womanhood,—the extension of religious instruction among the lowest classes by the missionary efforts of so many pious persons of both sexes,—and the spread of those sanitary improvements in our great towns and country villages, whereby the indiscriminate herding together of the sexes in their narrow dwellings may be prevented,—will not merely retain for England the position she has now obtained in the scale of morality, but yearly advance her until she has reached the highest place.

ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN
OF THE
MARRIAGES IN ENGLAND AND WALES DURING THE FOURTH QUARTER
(OCTOBER—DECEMBER) OF 1861, AND OF THE BIRTHS AND DEATHS
DURING THE FIRST QUARTER (JANUARY—MARCH) OF 1862.

THIS Return comprises the BIRTHS and DEATHS registered by 2,199 Registrars in all the districts of England during the winter quarter that ended on March 31st, 1862; and the MARRIAGES in 12,550 churches or chapels, about 4,572 registered places of worship unconnected with the Established Church, and 635 Superintendent Registrars' offices, in the quarter that ended on December 31st, 1861.

The *marriage-rate,* which had been low in the preceding nine months of 1861, continued rather low in the last quarter of the year. The births were numerous in the first quarter of the present year, as they had been in 1861; and the rate of mortality, which was comparatively low in the last two years, was not high in the first quarter of the present year. The marriage-rate in 1861, and the increase of pauperism in the same period, concur to indicate a less prosperous state of trade and industry in the community; but physical causes, and improvement in sanitary condition, appear to have exercised a favourable influence on the public health.

MARRIAGES.—The number of persons married in the December quarter of last year was 96,972; the total number in the year was 327,490. The marriage-rate of the quarter was 1·904 against an average of 1·991; the marriage-rate of the year was 1·628 against 1·684.

ENGLAND :—MARRIAGES, BIRTHS, *and* DEATHS, *returned in the Years* 1856-62, *and in the* QUARTERS *of those Years.*

Calendar YEARS, 1855-61 :—*Numbers.*

Years	'62.	'61.	'60.	'59.	'58.	'57.	'56.
Marriages No.	—	163,745	170,156	167,723	156,070	159,097	159,337
Births ...... „	—	695,562	684,048	689,881	655,481	663,071	657,453
Deaths ...... „	—	435,337	422,721	440,781	449,656	419,815	390,506

QUARTERS *of each Calendar Year* 1856-62.

(I.) MARRIAGES :—*Numbers.*

Qrs. ended last day of	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March ....No.	—	33,401	35,150	35,382	29,918	33,321	33,427
June .... „	—	41,966	43,777	42,042	39,890	41,267	38,820
Septmbr...... „	—	39,892	40,541	39,803	38,599	38,669	39,089
Dcembr. ..... „	—	48,486	50,688	50,496	47,663	45,840	48,001

QUARTERS of each Calendar Year, 1856-62.

(II.) BIRTHS :—*Numbers.*

Qrs. ended last day of	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March ....No.	182,005	173,170	183,180	175,532	170,959	170,430	169,250
June .... ,,	—	184,718	174,028	175,864	169,115	170,444	173,263
Septmbr..... ,,	—	171,500	164,121	168,394	157,445	161,181	157,462
Decmbr. .... ,,	—	166,174	162,719	170,091	157,962	161,016	157,478

(III.) DEATHS :—*Numbers.*

Qrs. ended last day of	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March ....No.	122,192	121,713	122,617	121,580	125,819	108,665	103,014
June .... ,,	—	107,721	110,869	105,631	107,142	100,046	100,099
Septmbr..... ,,	—	100,986	86,312	104,216	98,142	100,528	91,155
Decmbr. .... ,,	—	104,917	102,923	109,354	118,553	110,576	96,238

In London the *marriages* in the quarter were 7,328; in the north-western counties (Cheshire and Lancashire), which contain a rather larger population than London, the number was 7,092. While the *metropolis* maintained its marriages, as compared with those of the corresponding quarter of 1860, *Lancashire* reported a *considerable decrease*, for in the two corresponding quarters the numbers in that county were respectively 6,835 and 6,083. It was stated in a Registrar's report from Lancashire, made at the end of last year, that "the demand for labour in the cotton factories and the market generally had been fully a third below the average." The midland counties and Yorkshire also exhibited a decrease in marriages.

To take a few towns for examples of *decrease*: In Manchester marriages declined from 1,285 in the last quarter of 1860 to 1,151 in that of 1861; in Ashton from 342 to 271; in Blackburn from 412 to 281; in Preston from 355 to 254; in Stockport from 332 to 218; in Bradford from 575 to 483; in Sheffield from 601 to 471; in Nottingham from 252 to 210.

ENGLAND:—*Annual Rate Per Cent.* of PERSONS MARRIED, BIRTHS, *and* DEATHS, *during the* YEARS 1856-62, *and the* QUARTERS *of those Years.*

Calendar YEARS, 1856-62 :—*General Percentage Results.*

YEARS	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
Estmtd. Popln. of England in thousands in middle of each Year....	20,341	—	20,119	19,903	19,687	19,471	19,257	19,043
Persons Married Per ct.	—	1·684	1·628	1·710	1·704	1·604	1·652	1·674
Births .... ,,	—	3·420	3·457	3·437	3·504	3·366	3·443	3·453
Deaths.... ,,	—	2·221	2·164	2·124	2·239	2·309	2·180	2·051

QUARTERS of each Calendar Year, 1856-62.

(I.) PERSONS MARRIED :—*Percentages.*

Qrs. ended last day of	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	—	1·405	1·352	1·422	1·464	1·252	1·410	1·414
June....... ,,	—	1·709	1·676	1·766	1·716	1·646	1·722	1·638
Septmbr. ,,	—	1·616	1·572	1·614	1·602	1·570	1·592	1·626
Decmbr. ,,	—	1·991	1·904	2·012	2·026	1·934	1·880	1·992

(II.) BIRTHS :—*Percentages.*

Qrs. ended last day of	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	3·644	3·588	3·505	3·707	3·631	3·576	3·604	3·580
June .... ,,	—	3·571	3·687	3·512	3·588	3·488	3·555	3·655
Septmbr. ,,	—	3·285	3·377	3·267	3·389	3·204	3·316	3·276
Decmbr. ,,	—	3·231	3·264	3·230	3·414	3·205	3·304	3·267

(III.) DEATHS :—*Percentages.*

Qrs. ended last day of	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	2·447	2·489	2·463	2·481	2·515	2·631	2·298	2·179
June........ ,,	—	2·201	2·150	2·237	2·155	2·210	2·087	2·111
Septmbr. ,,	—	2·020	1·989	1·718	2·097	1·997	2·068	1·896
Decmbr. ,,	—	2·171	2·061	2·043	2·195	2·406	2·269	1·997

The marriages of all England declined, but in some places there was an increase. In the district of St. George, Hanover-square, they rose from 235 to 290; in Wakefield from 117 to 141; in Tynemouth from 146 to 182.

BIRTHS.—The total number of births in the first three months of this year was 182,005; in the same period of last year it was 173,170. The birth-rate, 3·644 was higher than in any of the years 1852-61, with the exception of 1860; the average rate is 3·588.

By a review of results in the Eleven Divisions it will be seen that in eight of them the number of *births* was less last quarter than it had been in the corresponding quarter of 1860; that in London the number was slightly higher; in the North-western Division it was higher by nearly 2,000; in the Northern Division also the births exhibited an increase.

In connexion with the above statement it may be observed here that, in comparing the same two periods, the absolute numbers of deaths were less in all the Divisions except the two last-mentioned, viz., the North-western and the Northern, which embrace Cheshire, Lancashire, Durham, Northumberland, &c. The conclusion is that generally where the quarter was more fruitful than that of 1860 in respect of births it was also unfortunately distinguished by more numerous deaths.

Where many children were born, many died; and their names were enrolled on both sides of the account.

INCREASE OF POPULATION.—The excess of births over deaths constitutes a natural increase of the population. This excess in the quarter was 59,813, which is equal to a daily average of 665.

In the first three months of this year the total number of *emigrants* who sailed from ports in the United Kingdom where there are Government Emigration

CONSOLS, PROVISIONS, PAUPERISM, *and* TEMPERATURE, *in each of the Nine* QUARTERS *ended 31st March,* 1862.

1	2	3	4	5	6	7	8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the *Mean* Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism.		Mean Temperature.
			Beef.	Mutton.		Quarterly Average of the Number of Paupers relieved on the *last day* of each week.		
						In-door.	Out-door.	
1860 31 Mar.	£ 94⅛	s. d. 44 5	d. d. d. 3¾—6½ 5½	d. d. d. 4¾—6¾ 5¾	s. s. s. 115—145 130	118,523	717,264	° 38·8
30 June	94⅞	52 8	4¾—6¾ 5¾	5½—7½ 6½	125—160 142	107,050	692,384	50·5
30 Sept.	93⅝	59 1	4¼—7 5⅝	5½—7½ 6⅝	125—145 135	101,680	667,680	56·2
31 Dec.	93⅝	56 9	3½—6¼ 4⅞	4¾—6¾ 5¾	115—130 122	115,158	673,680	42·6
1861 31 Mar.	91⅝	55 1	4—6¼ 5⅛	5½—7¾ 6⅝	140—155 147	131,501	758,441	39·9
30 June	91⅝	54 9	4¼—6½ 5⅝	5½—7½ 6¼	120—140 130	117,802	713,785	51·8
30 Sept.	91⅞	52 1	4¼—6½ 5⅝	4½—7 5⅞	85—110 97	112,932	693,649	60·4
31 Dec.	93⅝	59 3	4—6¼ 5⅛	4¾—6¾ 5¾	110—130 120	128,533	716,096	45·5
1862 31 Mar.	93¼	60 1	4—6¼ 5⅛	4½—6½ 5⅝	130—155 142	143,926	804,272	41·1

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 19,812,000 (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.

Officers was 15,159, of which 5,197 were persons of English, and about 8,000 of Irish origin. English emigrants left these shores at the rate of 58 daily. About two-thirds of the English went to the Australian Colonies*

The emigration to the *Australian Colonies* which had been much reduced as well as the emigration to all parts, exhibits some appearance of revival, while that to the *United States* continues rapidly to decline. In the quarter that ended 21st March emigrants (English, Scotch, Irish, and Foreign) to the Australian Colonies were 4,411 in 1860, 3,227 in 1861, and 6,322 in the present year; to the United States there went in the same periods 15,117, 12,156, and 7,210. The last number forms not more than the sixth or seventh part of the emigration to the same part of the world ten years ago.

PRICES, THE WEATHER, AND PAUPERISM.—The average price of wheat per quarter was 60s.; it was higher than it had been in any quarter since 1856. In the March quarter of 1860 and 1861 the price was 44s. 5d. and 55s. 1d. Potatoes were not cheap; they were on an average 142s. 6d. per ton. Beef was at the same price as in the same period of last year; mutton was a penny per lb. cheaper.

The mean temperature of the air at Greenwich for the three months was 41°·1 (which was also the temperature of February); it was 1°·6 above the average of 21 years. The mean temperature of each month was above the average; the highest temperature recorded was obtained at Bournemouth, near Poole, where the thermometer reached 70° in March; the lowest was reached Holkham; it was 11°·8, and occurred in March.

It is stated that at Belvoir Castle the land was in excellent condition for farming operations in January and February; but the wet weather at the latter end of March prevented all out-door work. Wheat looked well in favourable situations. Influenza had been prevalent among horses in January and February, and was fatal in many cases. At Culloden ploughing was completed about the middle of January on many farms; wheat had an early and rapid growth, and looked well. At Harrogate vegetation was very forward.

The Returns of the Poor Law Board bear faithful witness to the distress that unhappily prevails in many districts. The average number of in-door paupers relieved on the last day of each week rose from 118,523 in the March quarter of 1860 to 143,926 in the corresponding quarter of this year; that of out-door paupers from 717,264 to 804,272. The increase which the last returns show was very manifest, though not to an equal degree, in the March quarter of the intermediate year 1861.

STATE OF THE PUBLIC HEALTH.—The total number *of deaths* registered in the quarter was 122,192; it was not so great as in the same quarter of 1860, when the number was 122,617. London returned 18,405 deaths; Lancashire, which has a population less by upwards of 300,000 persons, returned 18,652. If the rate of mortality had been the same in Lancashire that it was in London, the deaths in that county, would have been about 16,000.

The *rate of mortality was lowest* in the SOUTH-EASTERN COUNTIES, which include Sussex, Hampshire, Berkshire, and the extra-metropolitan parts of Surrey and Kent; and in the SOUTH-WESTERN, which include Wiltshire, Dorsetshire, Devonshire, Cornwall, and Somersetshire; it was *higher* in the EASTERN and NORTH and SOUTH MIDLAND DIVISIONS; *higher still* in the WEST MIDLAND. The *highest rates of mortality* prevailed in Yorkshire, the Northern Counties, Monmouthshire, and Wales; in London; and in the NORTH-WESTERN DIVISION, which includes Cheshire and Lancashire. The last-mentioned Division is unfavourably distinguished above all the rest.

The rate of mortality in *England and Wales* in the quarter was 2·447 per

* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 4,200, while the birthplace of 2,907 emigrants was not distinguished; in the above statement a proportional number of these has been added to those returned as of English origin.

cent.; the average being 2·489. It ranged in the March quarter of the previous ten years from 2·2 to 2·9.

DEATHS *in the Winter Quarters, ended 31st March, 1855-62.—Numbers.*

DEATHS, &c.	1862.	Total 1852-61, (10 Years.)	1861.	1860.	1859.	1858.	1857.	1856.	1855.
In 125 Districts and 23 Sub-districts, comprising the *Chief Towns*	66,040	606,862	65,155	63,199	62,194	63,652	57,050	53,973	63,324
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly Small Towns and *Country Parishes*	56,152	567,408	56,558	59,418	59,386	62,167	51,615	49,041	66,893
All England........	122,192	1,174,270	121,713	122,617	121,580	125,819	108,665	103,014	131,512

AREA, POPULATION, DEATHS, *and* MORTALITY *per Cent. in the Winter Quarters, ended 31st March, 1852-62.*

GROUPS.	Area in Statute Acres. (England.)	Population Enumerated. (England.)		Deaths in 10 Winter Quarters, 1852-61.	Average Annual Rate of Mortality per Cent. of 10 Winter Quarters, 1852-61.	Annual Rate of Mortality per Cent. in the Winter Quarter, 1862.
		March 31st, 1851.	April 8th, 1861.			
	No.	No.	No.	No.	Per ct.	Per ct.
In 125 Districts, and 23 Sub-districts, comprising the *Chief* Towns	2,149,800	8,247,017	9,806,780	606,862	2·709	2·691
In the remaining Districts and Sub-districts of England and Wales, comprising *chiefly Small Towns and Country Parishes*	35,175,115	9,680,592	10,259,444	567,408	2·297	2·209
All England	37,324,915	17,927,609	20,066,224	1,174,270	2·489	2·447

In the district that comprise the *chief towns,* the rate of mortality was 2·691 per cent. against an average of 2·709. In those that consist chiefly of *small towns* and country parishes the rate was 2·209, against an average of 2·297. The country was not only favourably distinguished from town by having a rate of mortality which was lower by five deaths in each thousand of the population; it also appears to have attained a higher degree of salubrity as compared with that which had been experienced in the winters of former years.

The quarter, for which the present return is made, was at least as healthy as the same period in 1861, and more healthy than that of 1860. Taken as a whole, the season was warm, and "the wet," which is so much the subject of complaint in the local reports, was probably an evil that was not without its wholesome mixture of good. But Lancashire, as has been already mentioned in general terms, has tended to darken the aspect of returns, which viewed in the aggregate are not unfavourable. In the last three corresponding quarters the deaths in that county considerably increased; they were in the first 16,024, in the next 17,412, and in the March quarter of the present year 18,652.

Of twenty-six districts of which *Lancashire* consists, there was in twenty-one an increase of the deaths now returned over those of the March quarter of 1860; and in sixteen an increase over those of the same quarter of 1861. In Leigh the deaths in the three corresponding quarters were successively 273, 274, and 339; in Bury 591, 695, and 801; in Salford 706, 632, and 818; in Oldham 692, 809, and 893; in Haslingden 400, 422, and 491; in Burnley 500, 531, and 603; in Blackburn 727, 850, and 996; in Preston 823, 877, and 887; and in Manchester 1,760, 1,774, and 2,313. In Stockport the deaths in the same periods were 651, 588, and 711.

The registrars in certain districts refer the increased mortality which these figures too plainly reveal, to scarlatina, measles, bronchitis and pneumonia, which had been prevalent; and by some of them an opinion, which there is reason to fear may be too well founded, appears to be entertained that these complaints had found an active ally in the poverty and want which many of the unemployed thousands now suffer in the great seats of manufacture. Facts have been adduced to prove that in instances of great depression of trade, like that which recently occurred in Coventry, the mortality of children is reduced in consequence of the due amount of maternal care being bestowed on them which in more prosperous times is withdrawn by the importunate requisition of factory labour. This is within limits. Nursing in straitened circumstances may be better for children than fulness of good cheer without it; but when hard times are prolonged, and the small store that had been gathered in a day of full work is exhausted, the greatest amount of parental attention will not expel physical decline, sickness, or death itself from the dwelling.

MARRIAGES *Registered in Quarters ended 31st December, 1861-59; and* BIRTHS *and* DEATHS *in Quarters ended 31st March, 1862-60.*

1	2	3	4	5	6
DIVISIONS. (England and Wales.)	AREA in Statute	POPULATION, 1861. (*Persons.*)	MARRIAGES in Quarters ended 31st December.		
			'61.	'60.	'59.
	Acres.	No.	No.	No.	No.
ENGLD. & WALES....*Totals*	37,324,915	20,066,224	48,486	50,688	50,496
I. London	78,029	2,803,989	7,328	7,265	7,332
II. South-Eastern	4,065,935	1,847,661	4,272	4,274	4,219
III. South Midland	3,201,290	1,295,597	3,002	3,233	3,235
IV. Eastern	3,214,099	1,142,480	2,988	3,147	3,160
V. South-Western	4,993,660	1,835,714	3,914	4,022	4,060
VI. West Midland	3,865,332	2,436,568	6,087	6,488	6,311
VII. North Midland	3,540,797	1,288,928	2,886	2,952	3,166
VIII. North-Western	2,000,227	2,935,540	7,092	7,969	7,641
IX. Yorkshire	3,654,636	2,015,541	5,174	5,621	5,568
X. Northern	3,492,322	1,151,372	2,780	2,737	2,602
XI. Monmthsh. & Wales	5,218,588	1,312,834	2,963	2,980	3,202

7	8	9	10	11	12	13
DIVISIONS. (England and Wales.)	BIRTHS in Quarters ended 31st March.			DEATHS in Quarters ended 31st March.		
	'62.	'61.	'60.	'62.	'61.	'60.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES....*Totals*	182,005	173,170	183,180	122,192	121,713	122,617
I. London	25,800	25,407	25,017	18,405	18,965	18,823
II. South-Eastern	15,385	14,924	15,429	9,533	9,429	9,985
III. South Midland	10,980	10,537	11,764	7,003	6,965	7,370
IV. Eastern	9,439	9,300	10,064	6,193	6,225	6,579
V. South-Western	15,345	14,731	15,904	9,692	10,015	10,850
VI. West Midland	22,761	22,088	23,833	14,884	14,611	14,909
VII. North Midland	11,347	10,881	11,875	7,075	7,267	7,540
VIII. North-Western	29,404	26,775	27,491	21,610	20,269	19,078
IX. Yorkshire	18,885	17,659	19,148	12,539	12,846	12,610
X. Northern	11,508	10,402	10,879	7,180	7,128	6,683
XI. Monmthsh. & Wales	11,151	10,466	11,776	8,078	7,993	8,190

REMARKS ON THE WEATHER

DURING THE QUARTER ENDING 31ST MARCH, 1862.

By JAMES GLAISHER, ESQ., F.R.S., *&c., Sec, of the British Meteorological Society.*

Till the 6th of *January* the mean temperature of the air was ½° *below* the average; from the 7th to the 15th was 7¾° above; then for the next six days was 8° below. A period of warm weather followed extending to the 6th of *February*; within which some of the days were as much as 13° to 15° in excess, and the average daily excess for the 15 days was 8°. From the 7th of February to the 16th was cold; the daily defect of temperature was 3½°. The next six days were in excess to the amount of 8° daily; then from the 24th of February to the 5th of *March* there was a daily deficiency of 5½°, followed by a period of nine days whose daily average was 7° in excess; this period was succeeded by another ending the 21st of March, of deficient temperature to the amount of 2¼° daily; and from the 21st of March to the end of the quarter there was an excess of temperature to the amount of 6° daily.

Therefore during the whole of the past three months the temperature of the air has been for a few days together cold, and then for a few days together warm, and so on alternately; the former or cold periods have varied from five to nine days, and the warm from seven to nine days, with one of fifteen days. The warm periods have generally been of somewhat longer duration than the cold periods, and have also been generally more in excess of the average than the cold periods have been in defect, so that upon the quarter the temperature has been in excess, and would class as a warm period. I have no recollection of such a succession of hot and cold periods of nearly equal lengths.

The mean high day temperature in January averaged ¾°, and February 1¾° above, whilst in March it was 0°·1 *below* their respective averages.

The mean low night temperature in January was 1° nearly, in February 3¼°, and in March 3°, in excess of their respective averages.

Therefore the days in January and February were warm, and in March of just average temperature; whilst the nights were warm in January, and much more so in both February and March.

The mean temperature of the air was 0°·9 in excess in January, 2½° in excess in February, and 1°·3 in March, as compared with the averages of the preceding 21 years, chiefly due to the warm nights in February.

The mean temperature of the dew point was 0°·6 below its average in January, 2° above in February, and 2°·9 above in March. The mean for the quarter was nearly 1½° in excess; therefore the amount of water mixed with the air was less in January and greater in February and March.

The mean pressure of the atmosphere in January was 0·06 inch below, in February was 0·12 inch above, and in March 0·29 inch below their respective averages.

The fall of rain in January was 1·9 inch, in February 0·5 inch, and in March 3·7 inches; the total fall for the quarter was 6·1 inches, being about 1¼ inch above the average of the preceding 45 years. The fall in February was nearly the smallest which has occurred in this month since 1815, it having been less on three occasions, viz., 0·04 inch in 1821, 0·4 inch in 1834, and 0·2 inch in 1857. The fall in March has been exceeded twice since 1815, viz., in 1818, when it was 3·8 inches, and again in 1851, when it was 4·1 inches.

The range of the readings of the barometer in January south of latitude 52°, was about 1·1 inch, between 52° and 53° was 1·2 inch, gradually increasing to 1·4 inch at extreme northern stations. In February, stations situated between the latitudes 51° and 52° was 1·2 inch and 1·3 inch; at stations situated north and south of these latitudes it was 1·4 inch to 1·5 inch; and in March it varied from 0·9 inch at southern stations to 1·1 inch at northern stations.

The mean temperature of the air at Greenwich for the three months ending February, constituting the three winter months, was 40°·4, being 2°·6 *above* the average of the preceding 90 years.

1862. Months.	Temperature of												Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air— Daily Range.		Water of the Thames.					
	Mean.	Diff. from Average of 91 Years.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	
	°	°	°	°	°	°	°	°	°	°	In.	In.	Gr.	Gr.	
Jan.	39·0	+2·9	+0·9	37·1	+0·2	34·6	−0·6	9·6	−0·1	39·4	·200	−·003	2·3	−0·1	
Feb.	41·1	+2·8	+2·5	39·1	+2·1	36·6	+2·0	9·8	−1·6	43·3	·217	+·014	2·5	+0·1	
Mar.	43·1	+2·2	+1·3	41·5	+2·0	39·5	+2·9	11·6	−3·2	44·4	·242	+·024	2·8	+0·3	
Mean......	41·1	+2·6	+1·6	39·2	+1·4	36·9	+1·4	10·3	−1·6	42·4	·219	+·012	2·5	+0·1	

1862. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.				
										Number of Nights it was				
	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Amnt.	Diff. from Average of 46 Years.		At or below 30°.	Between 30° and 40°.	Above 40°.	Lowest Reading at Night.	Highest Reading at Night.
			In.	In.	Gr.	Gr.	In.	In.	Miles.				°	°
Jan.	85	− 4	29·705	−·064	552	− 2	1·9	−0·1	255	18	10	3	13·4	43·1
Feb.	84	− 1	29·905	+·122	553	0	0·5	−1·1	223	7	15	6	17·0	48·0
Mar.	86	+ 4	29·498	+·286	544	− 6	3·7	+2·2	237	8	13	10	14·0	46·0
Mean......	85	0	29·703	+·076	549	− 3	Sum 6·1	Sum +1·2	Mean 238	Sum 33	Sum 38	Sum 19	Lowest 13·4	Highest 48·0

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 31st March, 1862.*

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.
	in.	°	°	°	°	°	°	
Guernsey	29·616	59·0	29·0	30·0	26·2	6·4	43·7	87
Exeter	29·581	60·7	20·3	40·4	34·6	10·5	43·2	86
Ventnor	29·628	58·0	25·0	33·0	26·3	7·0	43·2	77
Barnstaple	29·605	61·4	22·2	39·2	32·4	10·8	43·4	92
Royal Observatory	29·650	63·6	20·4	43·2	35·8	10·4	41·0	85
Royston	29·668	63·3	17·5	45·8	37·0	10·7	39·9	90
Lampeter	29·576	61·5	16·0	45·5	39·7	11·3	41·6	89
Norwich	29·633	59·0	21·0	38·0	34·0	9·6	40·6	90
Belvoir Castle	29·631	58·3	17·0	41·3	37·3	10·1	39·6	91
Liverpool	29·643	56·6	26·8	29·8	26·3	7·1	42·0	87
Wakefield	29·636	60·0	19·0	41·0	36·5	10·2	40·1	91
Leeds	—	60·0	21·0	39·0	33·3	6·7	38·2	89
Stonyhurst............	29·580	56·1	19·0	37·1	29·1	8·8	39·8	87
York	29·602	57·5	21·5	36·0	33·2	7·9	39·7	92
North Shields	29·590	56·2	18·0	38·2	31·2	7·8	38·6	93
Alnwick................	29·614	57·0	18·0	39·0	32·0	9·1	37·6	93

10	11	12	13	14	15	16	17	18
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.			
								in.
Guernsey	1·6	6	8	9	8	5·9	43	9·0
Exeter	1·8	9	8	7	6	6·4	57	8·5
Ventnor	—	5	9	6	10		42	7·3
Barnstaple	1·3	5	12	7	6	4·8	53	8·6
Royal Observatory	0·4	5	7	9	9	1·4	45	6·0
Royston	—	6	6	8	9	7·4	64	5·2
Lampeter	0·8	6	9	8	7	7·6	45	10·7
Norwich............	1·4	—	—	—	—	8·1	43	6·3
Belvoir Castle	1·5	7	4	12	8	7·6	50	5·3
Liverpool	1·3	5	7	14	6	8·3	40	5·0
Wakefield	1·5	9	7	6	8	8·0	54	5·8
Leeds	1·4	6	8	8	7	8·5	48	4·4
Stonyhurst............	0·6	7	9	7	7	8·6	45	10·2
York	—	5	10	7	8		—	4·7
North Shields	1·7	8	6	8	8	7·5	73	7·2
Alnwick................	1·6	5	12	4	9	7·6	57	9·6

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.*

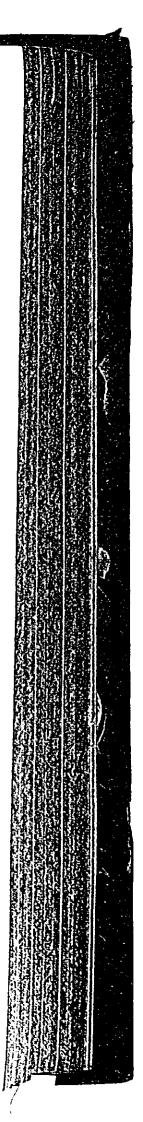| Merchandize (*excluding Gold and Silver*), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	Whole Year.					
	1861.		1860.		1859.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
	£	£	£	£	£	£
I.—FOREIGN COUNTRIES:						
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	18,649,	5,057,	23,118,	5,042,	19,608,	5,863,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	24,663,	21,303,	27,889,	21,217,	20,735,	18,631,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	24,979,	15,126,	24,244,	10,879,	22,180,	8,960,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	4,872,	7,896,	4,887,	6,902,	4,610,	5,558,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	13,247,	6,306,	15,908,	7,716,	12,519,	6,737,
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	544,	171,	296,	219,	289,	124,
Western Africa	1,515,	878,	1,801,	967,	1,526,	710,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	6,	39,	54,	81,	61,	272,
Indian Seas, Siam, Java, Sumatra, Philippines; other Islands	1,183,	1,918,	1,151,	2,122,	2,249,	3,193,
South Sea Islands	—	115,	—	34,	12,	115,
China, including Hong Kong	9,610,	4,891,	9,491,	5,319,	9,112,	4,460,
United States of America	49,385,	9,058,	44,728,	21,614,	34,295,	22,611,
Mexico and Central America	662,	756,	715,	645,	667,	823,
Foreign West Indies and Hayti	4,900,	2,072,	3,578,	2,670,	3,828,	2,557,
South America, (Northern,) New Granada, Venezuela, and Ecuador	539,	1,405,	687,	1,209,	585,	1,069,
,, (Pacific,) Peru, Bolivia, Chili, and Patagonia	5,718,	2,561,	5,373,	3,086,	3,772,	2,332,
,, (Atlantic) Brazil, Uruguay, and Buenos Ayres	4,741,	6,525,	4,238,	7,149,	5,205,	5,337,
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	135,	10,	153,	6,	168,	11,
Total.—Foreign Countries	165,348,	86,487,	168,311,	96,877,	141,421,	89,374,
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	26,155,	17,925,	18,467,	19,310,	16,901,	20,509,
Austral. Cols.—New South Wales and Victoria	4,945,	8,265,	4,698,	7,808,	4,241,	9,314,
,, ,, So. Aus., W. Aus., Tasm., and N. Zea.	1,956,	2,437,	1,772,	1,899,	1,601,	1,884,
British North America	8,664,	3,697,	6,826,	3,738,	5,476,	3,614,
,, W. Indies with Btsh. Guiana & Honduras	6,106,	2,665,	6,304,	2,557,	5,688,	2,273,
Cape and Natal	1,422,	1,987,	1,714,	2,064,	1,660,	562,
Brt. W. Co. of Af., Ascension and St. Helena	202,	434,	175,	395,	480,	613,
Mauritius	1,914,	552,	1,684,	539,	1,689,	1,931,
Channel Islands	639,	666,	697,	656,	197,	335,
Total.—British Possessions	52,003,	38,628,	42,337,	38,966,	37,913,	41,070,
General Total £	217,351,	125,115,	210,648,	135,843,	179,334,	130,410,

IMPORTS.—(United Kingdom.)—Whole Years, 1861-60-59-8-7.—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandize Imported into the United Kingdom.*

(Whole Years.) (000's omitted.) FOREIGN ARTICLES IMPORTED.			1861.	1860.	1859.	1858.	1857.
			£	£	£	£	£
RAW MATLS.—*Textile.*	Cotton Wool		38,653,	35,757,	34,568,	30,107,	29,289,
	Wool (Sheep's)		9,719,	11,031,	9,831,	8,972,	9,682,
	Silk		7,907,	10,324,	10,596,	6,111,	14,229,
	Flax		3,423,	3,837,	3,769,	3,021,	3,525,
	Hemp		1,894,	1,865,	2,363,	1,873,	1,953,
	Indigo		2,977,	2,529,	1,929,	2,292,	2,185,
			64,573,	65,343,	63,056,	52,376,	60,863,
,, ,, *Various.*	Hides		2,892,	3,296,	3,373,	2,480,	4,474,
	Oils		3,576,	3,923,	3,654,	3,636,	4,025,
	Metals		3,752,	4,228,	3,887,	3,710,	4,017,
	Tallow		3,312,	4,014,	2,933,	3,042,	3,285,
	Timber		9,931,	9,206,	8,163,	5,964,	7,564,
			23,463,	24,667,	22,010,	18,832,	23,365,
,, ,, *Agrcltl.*	Guano		2,022,	1,563,	769,	4,084,	3,613,
	Seeds		3,108,	3,392,	3,042,	2,710,	3,062,
			5,130,	4,955,	3,811,	6,794,	6,675,
TROPICAL, &c., PRODUCE.	Tea		6,851,	6,944,	5,813,	5,207,	4,677,
	Coffee		2,629,	2,543,	1,956,	1,742,	1,720,
	Sugar & Molasses		13,252,	12,811,	12,539,	13,468,	16,407,
	Tobacco		2,195,	1,778,	1,817,	2,531,	2,182,
	Rice		2,127,	1,023,	805,	1,653,	1,959,
	Fruits		1,470,	1,254,	1,599,	1,290,	1,479,
	Wine		3,863,	4,202,	2,781,	2,041,	4,081,
	Spirits		1,734,	1,919,	2,228,	1,250,	2,788,
			34,121,	32,474,	29,538,	29,182,	35,293,
FOOD	Grain and Meal		34,750,	31,432,	17,894,	19,993,	19,239,
	Provisions		7,780,	6,546,	3,372,	3,139,	4,019,
			42,530,	37,978,	21,266,	23,132,	23,258,
Remainder of Enumerated Articles			3,869,	3,714,	3,379,	3,023,	3,930,
TOTAL ENUMERATED IMPORTS			173,687,	169,131,	143,060,	133,339,	153,384,
Add for UNENUMERATED IMPORTS (say)			43,422,	42,283,	35,765,	33,335,	38,346,
TOTAL IMPORTS			217,109,	211,414,	178,825,	166,674,	191,730,

IMPORTS.—(United Kingdom.) — First Two Months (*January — February*) 1862-61-60-59-58.—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandize Imported into the United Kingdom.*

(First Two Months.) (000's omitted.) FOREIGN ARTICLES IMPORTED.		1862.	1861.	1860.	1859.	1858.
		£	£	£	£	£
RAW MATLS.—*Textile.*	Cotton Wool	1,206,	3,979,	5,338,	3,952,	2,138,
	Wool (Sheep's)..	510,	392,	660,	418,	451,
	Silk	2,034,	1,181,	1,385,	2,313,	688,
	Flax	366,	198,	297,	243,	107,
	Hemp	60,	54,	58,	72,	54,
	Indigo	179,	66,	93,	76,	134,
		4,355,	5,870,	7,831,	7,074,	3,572,
„ „ *Various.*	Hides	182,	124,	299,	140,	127,
	Oils	339,	170,	363,	306,	180,
	Metals	525,	260,	349,	287,	215,
	Tallow	145,	130,	134,	86,	113,
	Timber	498,	526,	363,	275,	265,
		1,689,	1,210,	1,508,	1,094,	900,
„ „ *Agrcltl.*	Guano	54,	151,	134,	88,	221,
	Seeds	242,	228,	317,	326,	207,
		296,	379,	451,	414,	428,
TROPICAL,&c.,PRODUCE.	Tea	1,639,	1,110,	1,158,	476,	416,
	Coffee	284	172,	188,	118,	97,
	Sugar & Molasses	1,153,	1,304,	1,111,	1,097,	904,
	Tobacco	154,	179,	43,	67,	76,
	Rice	46,	128,	87,	24,	149,
	Fruits	82,	173,	100,	80,	60,
	Wine	448,	544,	391,	242,	227,
	Spirits	241,	186,	215,	168,	75,
		4,047,	3,796,	3,293,	2,272,	2,004,
FOOD	Grain and Meal..	5,274,	6,172,	1,709,	1,993,	2,595,
	Provisions	658,	508,	649,	352,	330,
		5,932,	6,680,	2,358,	2,345,	2,925,
Remainder of Enumerated Articles		408,	311,	431,	308,	281,
TOTAL ENUMERATED IMPORTS....		16,727,	18,246,	15,872,	13,507,	10,110,
Add for UNENUMERATED IMPORTS (say)		4,182,	4,561,	3,968,	3,377,	2,527,
TOTAL IMPORTS		20,909,	22,807,	19,840,	16,884,	12,637,

EXPORTS.—(United Kingdom.)—First Three Months, 1862-61-60-59-58.— *Declared Real Value, at Port of Shipment, of Articles of* BRITISH *and* IRISH *Produce and Manufactures Exported from United Kingdom.*
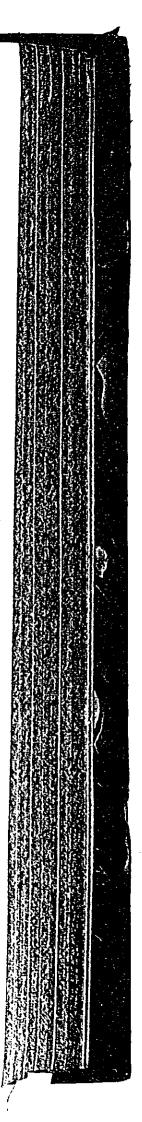
(First Three Months) (Unit 000's omitted.) BRITISH PRODUCE, &c., EXPORTED.		1862.	1861.	1860.	1859.	1858.
		£	£	£	£	£
MANFRS.—*Textile.*	Cotton Manufactures..	7,530,	9,134,	9,389,	9,550,	6,981,
	„ Yarn	1,389,	1,908,	2,425,	2,303,	2,144,
	Woollen Manufactures	2,985,	2,876,	3,005,	2,948,	1,941,
	„ Yarn	669,	641,	807,	545,	450,
	Silk Manufactures ...	473,	532,	503,	559,	320,
	„ Yarn	78,	55,	48,	50,	39,
	Linen Manufactures....	1,088,	1,084,	1,122,	1,177,	970,
	„ Yarn	403,	327,	469,	475,	317,
		14,615,	16,557,	17,768,	17,607,	13,162,
„ *Sewed.*	Apparel	422,	390,	462,	452,	374,
	Haberdy. and Mllnry.	673,	902,	989,	1,085,	755,
		1,095,	1,292,	1,451,	1,537,	1,129,
METALS	Hardware	566,	732,	816,	834,	679,
	Machinery	718,	750,	663,	576,	659,
	Iron	2,049,	2,058,	2,395,	2,604,	1,912,
	Copper and Brass	596,	474,	676,	664,	645,
	Lead and Tin	586,	350,	573,	584,	389,
	Coals and Culm	782,	658,	618,	608,	564,
		5,297,	5,022,	5,741,	5,870,	4,848,
Ceramic Manufcts.	Earthenware and Glass	357,	385,	480,	442,	370,
Indigenous Mnfrs.	Beer and Ale	402,	348,	645,	572,	452,
	Butter	54,	134,	139,	161,	100,
	Cheese	25,	27,	26,	30,	13,
	Candles	47,	69,	63,	32,	27,
	Salt	58,	78,	61,	39,	40,
	Spirits	58,	79,	60,	56,	51,
	Soda	186,	117,	226,	251,	134,
		830,	852,	1,220,	1,141,	817,
Various Manufcts.	Books	83,	100,	101,	101,	87,
	Furniture	45,	35,	48,	51,	57,
	Leather Manufactures	585,	402,	514,	431,	436,
	Soap	53,	46,	63,	39,	39,
	Plate and Watches ...	94,	102,	120,	126,	113,
	Stationery	57,	143,	181,	185,	166,
		917,	828,	1,027,	933,	898,
Remainder of Enumerated Articles		1,663,	710,	707,	771,	600,
Unenumerated Articles		1,649,	2,023,	2,087,	2,219,	1,686,
TOTAL EXPORTS		26,423,	27,669,	30,481,	30,520,	23,510,

SHIPPING. — FOREIGN TRADE. — (United Kingdom.) — First Three Months, (January—March), 1862-61-60-59.—*Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.*

(First Three Months.) ENTERED:—	1862.			1861.		1860.		1859.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
Vessels belonging to—	No.	Tons.	Tons.	No.	Tons	No.	Tons.	No.	Tons.
Russia	55	20,	363	60	23,	39	15,	39	13,
Sweden	65	16,	246	117	25,	70	17,	60	15,
Norway	314	62,	199	212	43,	182	42,	124	31,
Denmark	309	32,	104	379	39,	328	34,	253	29,
Prussia and Ger. Sts.	361	101,	279	375	108,	311	79,	265	74,
Holland and Belgium	356	47,	132	295	39,	271	40,	273	44,
France	396	35,	89	597	47,	302	27,	584	46,
Spain and Portugal	77	24,	311	102	25,	61	17,	75	18,
Italy & other Eupn. Sts.	81	27,	333	214	61,	117	37,	186	61,
United States	248	221,	891	489	450,	331	326,	197	199,
All other States	2	1,	650	3	1,	7	2,	4	1,
United Kingdm. & Depds.	2 264	586,	258	2,843	861,	2,019	636,	2,060	531,
	3 84	1,181,	307	4,054	1,221,	3,712	1,113,	3,698	972,
Totals Entered	6,108	1,767	289	6,897	2,082,	5,731	1,749,	5,758	1,503,
CLEARED:—									
Russia	91	31,	340	81	28,	70	25,	68	24,
Sweden	100	25,	253	116	28,	116	29,	75	23,
Norway	227	51,	224	183	44,	207	52,	91	25,
Denmark	414	44,	106	404	46,	412	46,	269	33,
Prussia and Ger. Sts.	739	153,	207	594	134,	564	133,	428	118,
Holland and Belgium	438	68,	156	307	43,	322	53,	320	55,
France	1,223	127,	103	1,098	110,	697	76,	759	80,
Spain and Portugal	76	24,	316	77	21,	69	19,	73	17,
Italy & other Eupn. Sts.	97	32,	329	259	72,	206	64,	266	83,
United States	260	219,	842	377	357,	340	327,	246	2,240,
All other States	12	6,	500	5	2,	6	2,	5	31,
United Kingdm. & Depds.	3,687	780,	211	3,501	885,	3,009	826,	2,600	729,
	5,792	1,640,	283	4,792	1,332,	4,683	1,3	4,998	1,346,
Totals Cleared	9,479	2,420	255	8,293	2,217,	7,692	2,165,	7,598	2,075,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — *Computed Real Value for the First Three Months, (January March), 1862-61-60.*

(000's at unit end omitted.)

(First Three Months.)	1862.		1861.		1860.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
Imported from:—	£	£	£	£	£	£
Australia	1,661,	—	1,612,	—	1,640,	—
So. Amca. and W. Indies	553,	1,307,	357,	1,579,	269,	1,252,
United States and Cal.	1,208,	36,	—	5,	507,	142,
	3,422,	1,343,	1,969,	1,584,	2,416,	1,394,
France	65,	249,	886,	206,	35,	1,347,
Hanse Towns, Holl. & Belg.	344,	591,	138,	114,	5,	648,
Prtgl., Spain, and Gbrltr.	7,	33,	4,	60,	6,	93,
Mlta., Trky., and Egypt	2,	5,	1,	3,	1,	1,
China	—	1,	—	—	—	—
West Coast of Africa	38,	2,	12,	—	32,	2,
All other Countries	77,	7,	14,	8,	1,	4,
Totals Imported	3,955,	2,231,	3,024,	1,975,	2,496,	3,489,
Exported to:—						
France	1,214,	202,	639,	278,	2,340,	94,
Hanse Towns, Holl. & Belg.	117,	91,	5,	115,	45,	7,
Prtgl., Spain, and Gbrltr.	486,	7,	224,	4,	126,	—
	1,817,	300,	868,	397,	2,511,	101,
Ind. and China (viâ Egypt)	353,	2,380,	188,	2,499,	600,	3,423,
Danish West Indies	28,	4,	—	—	—	—
United States	26,	—	3,063,	18,	1,	1,
South Africa	—	—	6,	—	2,	—
Mauritius	—	—	—	2,	—	—
Brazil	5,	10,	5,	37,	71,	30,
All other Countries	252,	13,	14,	37,	23,	22,
Totals Exported	2,481,	2,707,	4,144,	2,990,	3,208,	3,577,
Excess of *Imports*	1,474,	—	—	—	—	—
„ Exports	—	476,	1,120,	1,015,	712,	88,

REVENUE.—(UNITED KINGDOM.)—31st MARCH, 1862-61-60-59.

Net Produce in YEARS *and* QUARTERS *ended* 31st MARCH, 1862-61-60-59.

[Unit 000's omitted.]
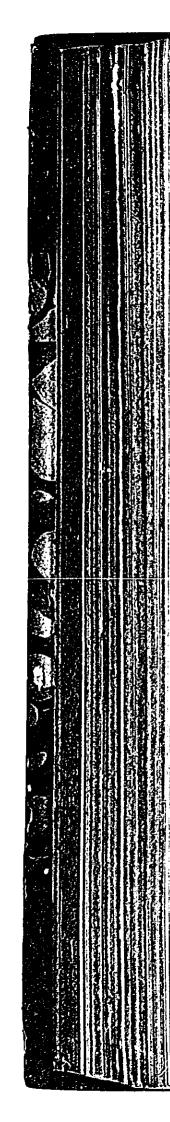
QUARTERS, ended 31st March.	1862.	1861.	1862.		Corresponding Quarters.	
			Less.	More.	1860.	1859.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs	5,724,	5,824,	100,	—	5,551,	5,914,
Excise	5,044,	4,873,	—	171,	4,507,	3,187,
Stamps	2,294,	2,191,	—	103,	2,128,	2,061,
Taxes	355,	314,	—	41,	313,	312,
Post Office	905,	895,	—	10,	915,	830,
	14,322,	14,097,	100,	325,	13,414,	12,304,
Property Tax	4,427,	4,024,	—	403,	6,002,	2,483,
	18,749,	18,121,	100,	728,	19,416,	14,787,
Crown Lands	77,	76,	—	1,	75,	73,
Miscellaneous	780,	339,	—	441,	729,	340,
Totals	19,606,	18,536,	100,	1,170,	20,220,	15,200,

NET INCR. £1,070,628

YEARS, ended 31st March.	1862.	1861.	1862.		Corresponding Years.	
			Less.	More.	1860.	1859.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs	23,674,	23,306,	—	368,	24,461,	24,118,
Excise	18,332,	19,435,	1,103,	—	20,361,	17,902,
Stamps	8,591,	8,348,	—	243,	8,043,	8,006,
Taxes	3,160,	3,127,	—	33,	3,232,	3,162,
Post Office	3,510,	3,400,	—	110,	3,310,	3,200,
	57,267,	57,616,	1,103,	754,	59,407,	56,388,
Property Tax	10,365,	10,924,	559,	—	9,596,	6,683,
	67,632,	68,540,	1,662,	754,	69,003,	63,071,
Crown Lands	295,	290,	—	4,	284,	280,
Miscellaneous	1,747,	1,453,	—	294,	1,802,	2,126,
Totals	69,674,	70,283,	1,662,	1,052,	71,089,	65,477,

NET DECR. £609,195

REVENUE.—(UNITED KINGDOM).—QUARTER ENDED 31st MARCH, 1862:—APPLICATION.

An Account showing the REVENUE *and other* RECEIPTS *of the* QUARTER *ended 31st March, 1862; 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 31st December, 1861, viz.;— £

    Great Britain .... —
    Ireland £982,494 982,494

Income received in the Quarter ended 31st March, 1862, as shown on preceding page 19,606,614

Amount raised by Exchequer Bills issued to replace, in part, the amount of bills paid off out of the Ways and Means Money Grants for the year 1861-62.. 1,000,000

Amount raised per Act 23 and 24 Victoria, cap. 109, on account of Fortifications, &c. 220,000

Amount received in the Quarter ended 31st March, 1862, in repayment of Advances for Public Works, &c. 231,564

Saving on former charges for the Civil List 150

£22,010,822

Balance, being the deficiency on 31st March, 1862, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 30th June, 1862, and for which Exchequer Bills (Deficiency) will be issued in that Quarter.......... 1,936,281

£23,977,103

Paid:—

Amount applied out of the Income for the Quarter ended 31st March, 1862, in redemption of Exchequer Bills (Deficiency), for the Quarter ended 31st December, 1861.......... £ 3,251,250

Amount applied in redemption of Ways and Means Bills issued in the Quarter ended 31st December, 1861 1,000,000

Amount applied out of the Income to *Supply Services* in the Quarter ended 31st March, 1862 11,642,818

Charge of the *Consolidated Fund* for the Quarter ended 31st March, 1862, viz.:—

    Interest of the Permanent Debt £5,724,419
    Terminable Debt 638,374
    Interest of Deficiency and Ways and Means Bills .. 5,189
    The Civil List 100,886
    Other Charges on Consolidated Fund 770,898
    Advances for Public Works, &c. 358,085
        7,597,861

Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 31st *March*, 1862, viz.: 485,174

£23,977,103

CORN.—*Gazette Average Prices* (ENGLAND AND WALES) *First Quarter of* 1862.

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday 1862.	Weekly Average. (Per Impl. Quarter)					
	Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January 4	62 1	36 8	22 2	37 11	40 10	42 3
„ 11	61 11	36 9	21 9	35 8	40 11	41 6
„ 18	61 4	36 11	22 2	36 8	40 11	41 1
„ 25	60 3	36 8	21 10	39 10	40 –	39 7
Average for January ..	61 4	36 9	21 11	37 6	40 8	41 1
February 1	60 2	36 6	21 11	35 –	40 1	40 7
„ 8	60 4	36 7	21 11	39 –	40 1	40 1
„ 15	59 10	36 5	21 11	39 4	39 8	39 6
„ 22	59 6	36 –	22 4	38 –	40 3	39 4
Average for February ..	59 11	36 4	22 –	37 10	40 –	39 10
March 1	59 8	35 9	22 6	36 –	39 3	39 7
„ 8	59 2	35 9	22 1	34 6	39 7	39 9
„ 15	59 –	35 10	21 11	38 5	39 5	40 1
„ 22	59 5	36 –	21 11	36 1	38 11	38 7
„ 29	58 11	35 10	21 11	35 –	38 10	40 2
Average for March	59 2	35 10	22 –	36 –	39 2	39 7
Average for the Quarter ..	60 1	36 3	22 –	37 –	39 10	40 1

RAILWAYS.—PRICES, *Jan.—March,—and* TRAFFIC, *Jan.—March,* 1862.

Total Capital Expended Mlns.	Railway.	For the (£100). Price on			Miles Open.		Total Traffic first 13 Weeks. (unit 00/s omitted.)		Traffic pr. Mile pr. Wk. 13 Weeks.		Dividends per Cent. for Half Years.		
		1st Mch.	1st Feb.	1st Jan.	'62.	'61.	'62.	'61.	'62.	'61.	31 Dec. '61.	30 Jun. '61.	31 Dec. '60.
£					No.	No.	£	£	£	£	s. d.	s. d.	s. d.
44,0	Lond. & N.Westn.	94	92¾	93¼	1,062	1,007	964,	1,016,	69	77	47 6	37 6	52 6
34,7	Great Western	70¼	67½	69¼	964	964	633,	631,	50	50	30 –	22 6	35 –
13,3	Great Northern....	114¼	113½	113¼	330	330	311,	333,	72	77	77 6	37 6	63 9
11,2	Eastern Counties.	56	52	53	499	499	298,	299,	45	46	30 –	16 3	23 9
9,9	Brighton	121	118	113½	241	224	171,	170,	54	58	70 –	50 –	70 –
13,9	South-Eastern	83¾	79½	77¾	306	306	224,	239,	56	60	50 –	41 8	60 –
12,3	South-Western	99½	98	93¾	400	394	195,	197,	37	38	55 –	40 –	52 6
139,3		89	88	87	3,802	3,724	2,796,	2,885,	56	59	51 –	35 1	51 1
21,4	Midland..............	129¼	131½	130½	614	614	464,	490,	58	61	70 –	62 6	70 –
19,1	Lancsh. and York.	106¼	107¼	108½	395	395	391,	448,	75	87	50 –	45 –	60 –
11,5	Sheffield and Man.	44	44	44¼	231	231	172,	187,	57	62	12 6	7 6	15 –
23,4	North-Eastern ...	97¾	100¾	101½	789	764	426,	462,	41	46	50 –	52 6	57 6
4,5	South Wales	67¼	69	67	171	171	—	86,	—	38	30 –	27 6	30 –
79,9		89	92	90	2,200	2,175	1,453,	1,673,	50	57	42 –	39 –	46 6
9,0	Caledonian	105¼	104	103	219	219	195,	190,	68	66	55 –	50 –	55 –
5,2	Gt. S. &Wn. Irlnd.	105	106	103	329	329	94,	93,	22	21	50 –	50 –	50 –
233,4	*Gen. aver.*	91	91	90	6,550	6,447	3,138,	4,841,	36	57	48 6	38 7	49 8

Consols.—Money Prices *1st March,* 93¾ to ½,—*1st Feb.,* 92½ to 93,—*1st Jan.,* 91⅓.
Exchequer Bills.   „   21s. pm.   „   16s. to 22s. pm. „   8s. to 11s. pm.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), *for Wednesday in each Week, during the* FIRST QUARTER (*Jan.—March*) *of* 1862.

1	2	3	4	5	6	7
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.		
Mlns. £	1862.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1861. Per ann.
29,79	Jan. 1	11,02	3,63	15,14	20,16	7 Nov. 3 p. ct.
29,86	„ 8 ...	11,02	3,63	15,21	20,35	1862.
30,12	„ 15	11,02	3,63	15,74	20,69	9 Jan. 2½ „
30,13	„ 22	11,02	3,63	15,48	20,95	
30,03	„ 29 ..	11,02	3,63	15,38	20,47	
29,76	Feb. 5	11,02	3,63	15,12	20,73	
29,87	„ 12	11,02	3,63	15,22	20,53	
29,66	„ 19	11,02	3,63	15,01	20,13	
29,50	„ 26	11,02	3,63	14,85	20,05	
29,47	Mar. 5 ...	11,02	3,63	14,82	20,53	
29,79	„ 12	11,02	3,63	15,14	20,02	
30,32	„ 19	11,02	3,63	15,67	19,87	
30,54	„ 26	11,02	3,63	15,89	20,20	

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES.	Assets.				Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.		(Wdnsdys.)	Government.	Other.	Notes.	Gold and Silver Coin.	
Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1862.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
14,55	3,18	7,35	15,04	,65	Jan. 1	11,56	18,76	9,63	,82	40,77
14,55	3,23	4,54	18,21	,73	„ 8	12,77	18,16	9,51	,84	41,27
14,55	3,28	4,58	16,48	,76	„ 15	12,27	17,14	9,43	,82	39,66
14,55	3,28	5,47	15,37	,75	„ 22	12,27	17,10	9,18	,87	39,42
14,55	3,29	5,75	14,75	,71	„ 29	11,57	17,03	9,56	,90	39,06
14,55	3,40	5,79	14,18	,69	Feb. 5	11,30	17,44	9,03	,84	38,61
14,55	3,41	4,88	15,53	,71	„ 12	11,10	17,81	9,34	,82	39,08
14,55	3,41	5,40	15,09	,64	„ 19	11,10	17,57	9,53	,89	39,09
14,55	3,33	5,76	14,94	,69	„ 26	11,21	17,72	9,45	,90	39,28
14,55	3,66	6,76	13,74	,69	Mar. 5	11,21	18,38	8,94	,85	39,39
14,55	3,66	7,53	13,76	,65	„ 12	11,21	18,28	9,77	,89	40,15
14,55	3,66	8,01	13,34	,61	„ 19	11,72	18,14	10,45	,88	40,18
14,55	3,67	8,41	13,15	,62	„ 26	10,89	18,24	10,34	,92	40,41

CIRCULATION.—Country Banks.

Average amount of Promissory Notes in Circulation in ENGLAND *and* WALES, *on Saturday, in each Week during the* FIRST QUARTER *(Jan.—March) of* 1862; *and in* SCOTLAND *and* IRELAND, *at the Three Dates, as under.*

DATES.	ENGLAND AND WALES.			SCOTLAND.				IRELAND.		
	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.)
	Mlns. £	Mlns. £	Mlns. £		Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
1861.				**1862.**						
Dec. 21	3,22	2,82	6,04							
„ 28	3,19	2,80	5,99							
1862.										
Jan. 4	3,24	2,82	6,06							
„ 11	3,33	2,91	6,24	Jan. 11	1,60	2,69	4,29	2,05	3,12	6,17
„ 18	3,56	2,94	3,30							
„ 25	3,32	2,91	6,23							
Feb. 1	3,27	2,88	6,15							
„ 8	3,25	2,87	6,12	Feb. 8	1,52	2,53	4,05	3,05	3,03	6,08
„ 15	3,22	2,86	6,08							
„ 22	3,19	2,85	6,04							
Mar. 1	3,18	2,84	6,02							
„ 8	3,15	2,85	6,00	Mar. 8	1,43	2,44	3,87	3,01	2,89	5,90
„ 15	3,14	2,87	6,01							
„ 22	3,14	2,89	6,03							
„ 29	3,23	2,94	6,17							

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.		Hong Kong.	Sydney.	Standard Silver in bars in London.
	London on Paris.	Bullion as arbitrated.		Prem orDis. on Gold per mille.	London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
	3 m.d.	Agnst. Engd.	For Engd.		3 m.d.	Agnst. Engd.	For Engd.	60 d.s.	60 d.s.	6 m.s.	6 m.s.	30 d.s.	pr.oz.
1862.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
Jan. 11 ..	25·52	par	—	3 p.	13·8	par	—	111	26	24⅝	54½	1 p.	61¼
„ 25 ..	·47	—	—	2 „	·7¾	—	0·1	113	„	„	„	„	„⅜
Feb. 8 ..	·45	0·3	—	2 p.	·7¾	0·1	—	115	„	„	„	2 p.	„
„ 22 ..	·42	0·2	—	1 „	·8	—	0·2	113	„	„	„	„	„¾
Mar. 8 ..	·47	0·1	—	par	·8¼	—	0·2	114	„	24¾	„	„	61
„ 22 ..	·55	par	—	„	·8½	—	„	113	„	„½	„	„	

JOURNAL OF THE STATISTICAL SOCIETY,

SEPTEMBER, 1862.

On the INCLOSURE COMMISSION, *its* POWERS, *and the* PRINCIPLE *on which they have been exercised.* By JOHN WILLIAM TOTTIE, F.S.S.

[Read before the Statistical Society, 20th May, 1862.]

REFERRING to the "Seventeenth Report of the Inclosure Commis- "sioners for England and Wales," which I have the privilege of laying before you, the statistical matter appears to occupy so small a space, that I feel considerable diffidence in making it the subject of a contribution to the papers of this Society. I endeavour, there- fore, in addition to the mere detail of results, to give a general state- ment of the powers of the Commissioners, with the principle on which these powers have been carried into operation, in order to enable others to form a judgment of the true value of the existing powers, to estimate the worth of their continuance, the necessity for their improvement, or the benefit to be obtained from their extension.

INCLOSURE OF LANDS.

Proceedings under the Acts for the Inclosure, Exchange, and Improvement of Land prior to the Authorizing Act.

In the first instance, application is made by persons interested in the land to be inclosed, representing at least one-third in value of the interests and in the form prescribed by the Commissioners.

On the receipt of the application it is referred to an Assistant Commissioner for inquiry into the expediency of the inclosure, such inquiry being made at a meeting called with fourteen days' notice on the church door of the parish within which the land to be enclosed is situate, and by advertisement. The practice being to hold such meetings at some convenient place within or near such parish.

The Assistant Commissioner reports the result of his inquiries to the Commissioners, upon which, if they see fit, they frame their provisional order, which is deposited in the parish, with notice of their intention to certify in their annual or special report to the