

BANKRUPTCY.

An Analysis of the Bankruptcies in England and Wales, gazetted in each Month of the Quarter ended June 30, 1844; showing the Counties and Branches of Industry in which they have occurred. (Continued from p. 192.)

COUNTIES.				TRADES.			
	April.	May.	June.		April.	May.	June.
Metropolis	37	31	15	<i>Agriculture and connected Trades.</i>			
Bedford . . . . .	..	1	..	Farmers . . . . .	..	1	1
Berks	1	..	2	Agricultural Implement Makers and Wheelwrights. } . . . . .	..	..	..
Bucks . . . . .	..	..	..	Millers and Malsters	1	..	5
Cambridge . . . . .	..	2	2	Hop Merchants . . . . .	..	1	..
Chester . . . . .	..	2	1	Brewers	3	2	..
Cornwall . . . . .	..	..	..	Horse and Cattle Dealers, and }	1	2	1
Cumberland	1	..	1	Woolstaplers . . . . .	..	..	..
Derby	2	1	..	<i>Mining and connected Trades.</i>			
Devon	1	2	..	Mining Firms . . . . .	..	..	..
Dorset	1	..	..	Blasting Works . . . . .	..	..	..
Durham . . . . .	..	2	3	<i>Manufactures.</i>			
Essex	1	2	2	Woollen Manufactures	1	3	1
Gloucester . . . . .	..	1	3	Cotton "	1	1	1
Hants	1	3	2	Linen " . . . . .	..	..	..
Hereford	1	1	1	Silk " . . . . .	..	1	..
Hertford	1	1	1	Printers and Dyers . . . . .	..	..	..
Huntingdon . . . . .	..	..	..	Lace Manufacturers . . . . .	..	..	..
Kent . . . . .	..	2	2	Hosiery " . . . . .	..	..	..
Lancaster	9	11	7	Hardware "	1	4	3
Leicester	1	..	..	Earthenware " . . . . .	..	..	..
Lincoln . . . . .	..	2	..	Glass " . . . . .	..	..	..
Middlesex (exclusive of the Metropolis) . . . . .	..	1	1	Paper " . . . . .	..	..	..
Monmouth	2	1	..	Builders	8	9	4
Norfolk . . . . .	..	1	..	Miscellaneous Manufactures	11	10	5
Northampton	1	..	1	<i>Commerce.</i>			
Northumberland	1	..	..	Bankers and Merchants	5	8	1
Nottingham . . . . .	..	2	..	Shipowners, Warehousemen, Brokers, and Wholesale Dealers generally	10	11	10
Oxford . . . . .	..	2	3	<i>Retail and Handicraft Trades.</i>			
Rutland . . . . .	..	..	..	Bakers . . . . .	..	1	1
Salop	1	1	..	Butchers . . . . .	..	..	2
Somerset (including Bristol)	2	1	..	Corn and Hay Dealers	2	..	3
Stafford	3	5	2	Imkeepers and Victuallers	8	12	1
Suffolk	2	3	..	Wine and Spirit Merchants	3	3	3
Surrey (exclusive of the Metropolis) . . . . .	..	3	..	Dealers in Grocery, Drugs, and Spices	7	10	3
Sussex	1	3	3	Makers of, and Dealers in, }	4	4	5
Warwick	4	2	3	Clothing . . . . .	..	..	..
Westmoreland	1	..	..	Makers of, and Dealers in, Fur- }	2	1	2
Wilts . . . . .	..	..	..	niture . . . . .	..	..	..
Worcester . . . . .	..	2	1	Coach Builders . . . . .	..	..	..
York (East Riding)	2	1	Miscellaneous	17	17	9
" (North Riding)				
" (West Riding)	10	8	4				
Wales	1				
Total	85	101	61	Total	85	101	61

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DECEMBER, 1844.

A Statistical View of the Recent Progress and Present Amount of Mining Industry in France; drawn from the Official Reports of the "Direction Générale des Ponts et Chaussées et des Mines," in continuation of a Paper read before the Statistical Section of the British Association for the Advancement of Science, at its Meeting in Newcastle in 1838. By G. R. PORTER, Esq., F.R.S., Corresponding Member of the Institute of France.

[Read before the Statistical Section of the British Association at York, September 26th, 1844.]

At the present time, when the most strenuous exertions are being made for the advancement of the material interests of this country in all their leading branches, and while those exertions are being attended by the measure of success which usually accompanies industry directed by intelligence, it must be interesting to know whether other nations are engaged in the same pursuits, and in what degree success may have crowned their efforts also.

Our mining industry, if not the greatest, is, without doubt, one of the greatest sources of our wealth. It has been one of the chief means whereby we have been enabled to take and to maintain the station which we occupy among the nations of Europe. The knowledge of this fact has naturally led to this consequence, that other countries have striven to rival us so far as the means for such rivalry have been within their reach, and that their Governments have shown a desire to foster and encourage pursuits from which they have expected to draw results commensurate with those which have thus excited their emulation.

In no country have greater efforts to this end been made than in France. Whether the means whereby success has been sought have been the most judicious that could have been adopted on the part of the Legislature of that country is, however, very questionable.

The latest of the official documents that has been hitherto compiled having reference to the mining operations of France, relates to the year 1841, being five years in advance of the returns brought forward at the meeting of this section of the British Association in Newcastle. It will be interesting to compare the results obtained at the end of that interval of time, as an element of importance towards forming a judgment concerning the future progress of the mining industry of France. With this view, the facts will be presented as nearly as possible in the form given to the inquiry in 1838.

The system of Government inspection of the mines in France was begun in 1832, during which year, as well as in 1836 and 1841, the

value of the principal mineral productions raised in that country was as follows :—

	1832	1836	1841
	Francs.	Francs.	Francs.
Coal, lignite and anthracite	16,079,670	26,607,071	33,159,044
Iron and Steel	87,312,994	124,384,616	141,789,560
Silver and Lead	856,673	821,534	774,033
Antimony	71,233	305,032	155,251
Copper	247,680	196,924	278,676
Manganese	105,150	152,671	147,483
Alum and Sulphate of Iron	1,077,595	1,760,607	2,052,043
Total	105,750,995	154,228,455	178,356,090
Or in sterling money	£4,230,040	£6,169,138	£7,134,243

The actual increase of value realized from the production of these mineral substances will be seen to have been—

	Francs.	Francs.
During 4 years, 1832 to 1836.	48,477,460, or 12,119,365 per annum.	
During 5 years, 1837 to 1841.	24,127,635, or 4,825,527 per annum.	
During 9 years, 1832 to 1841.	72,605,095, or 8,067,233 per annum.	
The per centage increase in 1836 over 1832 was 45.84, or 11.46 per annum.		
The per centage increase in 1841 over 1836 was 15.64, or 3.12 per annum.		
And for the whole 9 years, 1841 over 1832 was 68.65, or 7.63 per annum.		

Coal.

The number of coal fields (bassins houillers) which were open in 1836 was 46. This number was in 1841 increased to 62; of which number 9 furnished anthracite only, and 14 furnished lignite only; the other 39 furnished bituminous coal, 5 among them yielding anthracite also. These coal-fields are situated in 41 of the 86 departments into which France is divided. They are here arranged in the order of their productiveness as given in the accounts for 1841 :—

Loire	Tons. 1,193,110	Puy de Dôme	Tons. 10,400
Nord	893,325	Ardèche	10,043
Saône et Loire	316,426	Vaucluse	8,302
Gard	274,234	Manche	6,977
Aveyron	111,379	Vendée	4,294
Bouches du Rhône.	64,777	Aude	3,259
Allier	63,532	Alpes (Hautes).	3,167
Haute Loire	51,564	Sevres (Deux)	2,699
Calvados	51,345	Oise	2,500
Nièvre	42,880	Creuse	2,145
Mayenne	42,345	Var	1,765
Isère	37,207	Vosges	1,684
Tarn	37,107	Corrèze	1,623
Herault	32,633	Alpes (Basses).	1,035
Sarthe	31,198	Aisne	738
Marne et Loire.	20,807	Rhin (Haut)	535
Loire Inférieure	19,347	Cantal	475
Pas de Calais	19,182	Côte d'Or	258
Haute Saône	17,325	Dordogne	133
Rhône	14,831	Ain	96
Rhin (Bas)	13,465		

Two departments—Moselle and Lot—which each produced a small quantity of coal in 1836, had ceased to do so in 1841. The quantity

raised in the former year was 3016 tons in Moselle, and 60 tons in Lot. On the other hand, the following departments, 13 in number, from which coal was not obtained in 1836, have since been made to yield that mineral—some of them in comparatively considerable quantity.

Bouches du Rhône	Tons. 64,777	Var	Tons. 1,765
Isère	37,207	Basses Alpes	1,085
Sarthe	31,198	Aisne.	738
Vaucluse	8,302	Côte d'Or	258
Manche	6,977	Ain	96
Hautes Alpes	3,167		
Deux Sevres	2,699	Together	160,769
Oise	2,500		

This quantity may not appear very considerable to those who are accustomed to the magnitude of mining operations in this country; but the importance of the beginning thus made will not be undervalued, if we consider that of the 30 coal producing departments, in 1836, the aggregate quantity yielded by 22, or 11-15ths of the whole number, was less in that year than the quantity thus newly produced in the above 13 departments in 1841, and that the 20 of those 22 departments in which coal mines were worked in that year then produced very nearly double the quantity they had yielded in 1836.

The total quantity of coal, anthracite and lignite, raised in 1841 amounted to 3,410,200 tons. In 1814, the produce of all the coal mines in France was only 665,610 tons. This quantity was about doubled in 1826, the produce in that year having been 1,301,045 tons. In the following ten years this increased quantity was nearly doubled, the quantity raised in 1836 having been 2,544,835 tons. The increase during the last five years to which the statements reach has therefore been 34 per cent.; but if computed upon the produce of 1814, the difference between 1836 and 1841 amounts to 130 per cent. The increase during the whole period of 27 years has been 412 per cent. The quantities raised in each of the years above named, and the increase obtained between each period, have been as follows :—

	Quantity Raised.	Increase since 1814.	Increase since 1826.	Increase since 1836.
	Tons.	Tons.	Tons.	Tons.
1814	665,610	..	..	..
1826	1,301,045	635,435	..	..
1836	2,544,835	1,879,225	1,243,790	..
1841	3,410,200	2,744,590	2,109,155	865,365

The number of coal mines in work during 1841 was 256, showing an average production of 13,321 tons per mine. The average production in 1836 was only 9863 tons.

The number of workmen employed in raising various kinds of coal in France in 1841 was 29,320, of whom 22,595 worked in the mines. The average quantity raised to each person employed was 116 tons, being the same quantity as in 1836, when the number of persons employed was 21,913.

The value assigned in the official documents to the produce makes the cost of each ton amount in 1836 to 11s. 3½d., and in 1841 to

only 7s. 9½d.; the average value raised by each workman, which in 1836 amounted to 65l. 9s. 10d., had therefore fallen in 1841 to 45l. 1s. 5d., or nearly one-third. There are no means afforded for ascertaining in what proportion this saving has resulted from economy in the working, or from diminished wages or profits. In whatever manner the saving may have arisen, it is, however, an important fact, that the cost of production has in so short a space of time as five years been reduced to so great an extent as 30 per cent., without preventing the continued extension of this branch of employment.

We have no means whereby to ascertain correctly the quantity of coal raised in this country, but there are good grounds for believing that it is at least ten times the quantity that was raised in France in 1841. From Parliamentary documents we know that the quantities shipped coastways from one port to another in Great Britain and Ireland, in 1841, was 7,649,899 tons; the quantity exported to British colonies and foreign countries in the same year was 1,848,294 tons; together, 9,498,193 tons. But we know that for all great manufacturing purposes—smelting, casting, and forging iron and other metals, for glass-making, in the potteries, in our cotton, woollen, flax, and silk factories—coal is used which is produced on the spot, and is therefore not included in any account of shipments. It has been estimated that in our iron-works alone the consumption amounts to 6,877,000 tons yearly; and it will not be thought unreasonable to assume that a like quantity is used in all the other great branches of manufacture which are carried on among the various coal-fields. It was ascertained by a deputation from the body of coal owners of Durham and Northumberland, who were sent through the kingdom for the purpose of making the inquiry in the year 1816, that the quantity of coal distributed by canals and other modes of inland communication from the coal-fields of Yorkshire, Derbyshire, Nottinghamshire, Leicestershire, Warwickshire, and Staffordshire, to the east, west, and south of the kingdom, amounted to 10,808,046 tons; and there can be no doubt that at this time the quantity thus distributed must be much greater. These quantities amount to more than 34,000,000 of tons; and as the number of persons of all ages and both sexes employed in coal-mines in Great Britain in 1841 was found to be 118,233, it follows that the average quantity raised by each person is 253 tons, or about 120 per cent. more than the average quantity raised by each person from the coal-mines in France.

The use of coal in France is not limited to the supply obtained from the mines of that country. Considerable and constantly increasing quantities are yearly imported from Belgium, from the Rhenish provinces of Prussia and Bavaria, and from England. The quantity so imported in 1814 was 165,345 tons; in 1826 it had reached 505,180 tons; in 1836 it had further advanced to 999,452 tons; and in 1841 the quantity imported was 1,619,160 tons. Of this last mentioned quantity the importations were:—

	Tons.
From Belgium	992,226
From the Rhenish provinces of Prussia and Bavaria	196,502
From England, Wales, and Scotland	429,950
From other places	482
	1,619,160

On the other hand, some small quantities of coal are exported from France; but those shipments have never reached 50,000 tons in one year. The quantities of this description of fuel, so important for all manufacturing processes, and so indispensable for some, that remained for use in the kingdom in the years already cited were, in round numbers, as follows:—

	Tons.
In 1814	800,000
In 1826	1,800,000
In 1836	3,517,000
In 1841	4,980,000

The import duties on coal were diminished in 1834 from one uniform rate of 15 francs per ton to 3 francs, 6 francs, and 10 francs per ton, depending upon the district into which it is brought by sea; while the duty on importations by land was reduced from 3 francs to 1 franc and 1 franc 50 cents, such reduction being from 33 to 80 per cent. upon the former rates. The quantities imported have, since this reduction, increased to the extent of 130 per cent.; but, concurrently with this increase, the internal production has been augmented to the extent of 65 per cent.

Iron.

The increase which has taken place in this branch of mining industry since 1836 is not nearly so great as the increase that has attended the production of mineral fuel; for which result we may in great part account by the fact, that the iron trade in France has not been subjected to any diminution of fiscal protection, but continues to be hedged round by high and, as regards many qualities of the metal, prohibitory duties.

There were in 1836 twelve districts in which the making of iron was prosecuted in France. Including both smelting works and works for making bar-iron, there were in those twelve districts 894 distinct establishments. In 1841 the number of distinct establishments was increased to 1023. There were smelting works in 59 different departments, and in 20 other departments the making of pig and bar-iron from ore elsewhere produced was carried on; so that there were only 7 departments throughout France in which one of those two branches of the iron manufacture was not prosecuted. These 7 departments were:—

- | | |
|------------------|-----------------|
| 1. Basses Alpes. | 5. Haute Loire. |
| 2. Hautes Alpes. | 6. Lozère. |
| 3. Creuse. | 7. Vendée. |
| 4. Gers. | |

In some departments the quantity of iron made was inconsiderable. In Cantal the value of the metal produced was only 1280 francs, or 51l. 4s.; and in each of 13 other departments the value in the year did not reach 5000l. One half in value of all the iron made in France in 1841 was produced in the following 9 departments, which are here placed in the order of their productiveness, viz.:—

- | | |
|-----------------|-----------------|
| 1. Haute Marne. | 6. Ardennes. |
| 2. Moselle. | 7. Cher. |
| 3. Côte d'Or. | 8. Haute Saône. |
| 4. Loire. | 9. Meuse. |
| 5. Nièvre. | |

Including with those 9 departments the like number which follow, placed also in the order of their productiveness, viz. :—

1. Seine,	6. Vosges,
2. Doubs,	7. Nord,
3. Gard,	8. Dordogne,
4. Saône et Loire,	9. Indre,
5. Ariège,	

it appears that 5-7ths in value of all the iron made in France is produced in 18 departments, and that the remaining 2-7ths are distributed among 61 departments. The greatest value was in 1841 produced in the department of Haute Marne, and amounted to 11,983,744 francs, or 479,349*l.*, which sum was divided among 86 establishments placed in 41 different localities; some of which establishments are said to have been in operation so early as the beginning of the 17th century.

The value of iron and steel made in the various departments of France, which amounted, according to the returns of the Government inspectors, to 4,975,424*l.* in 1836, is stated by those officers to have amounted in 1841 to 5,671,582*l.*, showing an increase in 5 years of barely 14 per cent. The value assigned to a given weight of the produce has during the same time been reduced at the rate of 8½ per cent.

The 12 districts in which iron is produced are thus distributed according to the official documents:—

	Departments.
1st. Group of the East	{ Haute Saône—Côte d'Or—Doubs—Jura—Vosges —Haut Rhin—Haute Marne—Meurthe.
2nd. Group of the North-west	{ Eure—Orne—Mayenne—Morbihan—Sarthe— Loire Inférieure—Côtes du Nord—Eure et Loire—Ille et Vilaine—Manche—Loire et Cher —Marne et Loire—Finisterre.
3rd. Group of the Indre	{ Indre—Vienne—Indre et Loire—Haute Vienne— Deux Sevrès.
4th. Group of Périgord	{ Dordogne—Haute Vienne—Charente—Lot et Garonne—Tarn et Garonne—Corrèze—Lot— Puy de Dôme.
5th. Group of the South-east	Isère—Vaucluse—Drôme.
6th. Group of the North-east	{ Ardennes—Moselle—Meuse—Nord—Bas Rhin —Aisne.
7th. Group of Champagne	{ Haute Marne—Côte d'Or—Meuse—Vosges— Yonne—Marne—Aube.
8th. Group of the Centre	Nièvre—Saône et Loire—Cher—Allier—Loiret.
9th. Group of the South-west	{ Landes—Gironde—Basses Pyrénées—Lot et Garonne.
10th. Group of the Coal Fields of the North	{ Nord—Pas de Calais—Oise—Seine—Seine et Oise.
11th. Group of the Coal Fields of the South	{ Loire—Aveyron—Ardèche—Gard—Isère— Rhône.
12th. Group of the Pyrénées and Corsica	{ Ariège—Pyrénées Orientales—Aude—Haute Garonne—Tarn—Basses Pyrénées—Hautes Pyrénées—Corse.

The grouping in the foregoing arrangement is somewhat different from that adopted in the returns of 1836. The actual and relative importance of each group may be seen from the following figures:—

Group.	Number of Iron Works.	Quantity of Fuel used.				Quantity of Products.		
		Wood Charcoal.	Coke.	Coals.	Wood.	Cast Iron.	Bar Iron.	Steel.
		Tons.	Tons.	Tons.	Stères.	Tons.	Tons.	Tons.
1	159	107,651	59	621	28,742	53,207	27,523	554
2	59	57,063	120	10,559	3,276	28,686	13,011	..
3	28	25,840	1,825	263	..	10,671	5,306	195
4	123	41,411	..	4,487	652	18,053	10,131	81
5	36	6,574	..	7	..	1,819	343	1,592
6	117	88,847	9,706	23,021	141,573	57,697	38,315	348
7	167	126,319	..	47,949	..	88,767	50,043	..
8	119	86,650	18,232	45,250	500	47,344	35,975	957
9	25	19,792	..	240	1,916	10,231	3,637	..
10	24	10	31,011	44,883	..	14,817	20,084	93
11	22	458	114,968	169,895	..	45,850	49,360	936
12	144	33,803	..	2,101	..	..	10,019	2,130
	1,023	594,418	175,924	349,276	176,659	377,142	263,747	6,886

The following figures present the number of workmen employed in the different divisions of the iron manufacture, and the value created in each of those divisions in 1836 and in 1841:—

	1836		1841	
	Number of Workmen.	Value Created.	Number of Workmen.	Value Created.
		£.		£.
1. Extraction and preparation of the Ore	17,557	500,632	15,783	556,211
2. Production of Pig Iron (<i>fonte</i>)	6,776	1,969,132	4,835	1,925,673
3. Production of Malleable Iron (<i>gros-fer</i>)	8,678	1,506,247	11,148	1,749,810
4. Drawing, Rolling, &c.	8,615	812,486	13,165	1,208,946
5. Moulting, Casting, &c. Steel	2,149	186,927	2,899	230,942
Total	43,775	4,975,424	47,830	5,671,582

The value assigned to each form or product of the manufacture in the French official accounts, is, when converted into English weight and money:—

	Per Ton.		Per Ton.
Pig Iron	£6 11 1	Bolt and Rod Iron	£22 18 10
Castings—1st melting	10 14 9	Iron Plates	24 19 5
Castings—2d melting	16 6 5	Iron Wire	30 1 9
Bar Iron	15 13 1	Cast Steel	55 3 6

These prices, so exorbitantly high when compared with the cost of production in England, must result in great part from the less efficient application of labour in France, and partly also from the higher cost of fuel in that country. Measuring the production of the two countries by the quantity of ore converted into pig iron, it appears that in Great Britain we make 4 tons for each ton made in France, while the number of persons employed for the purpose is positively greater in France than in England, viz. :—

In France	47,830		In Great Britain	42,418
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Giving as the average quantity of metal resulting from the labour of each person employed rather less than 8 tons in France, and more than 35 tons in this country. But, to estimate to its full extent the greater efficiency of this branch of labour with us, we must bear in mind the greater number of persons employed in France for the production and transport of the fuel used at the iron-works, and which, as we have seen, is 120 per cent. greater than with us. If the cost of fuel at the iron-works of Great Britain were as great as at the iron-works of France, it would on a moderate computation add 50s. per ton to the cost of the iron produced in this country.

The value of the fuel consumed in the manufacture of iron in France in 1836 and 1841 was:—

	1836	1841
	£.	£.
Wood Charcoal	1,643,826	1,706,712
Wood	13,040	41,027
Coke	96,972	177,237
Coal	285,235	254,387
Peat	694	301
Total	2,039,767	2,179,664

Being 41 per cent. on the value of metal made in 1836, and 38½ per cent. in 1841.

The above amounts were divided among the different processes in the following proportions:—

	1836	1841
1. Roasting the Ore	0·087	0·104
2. Smelting	55·500	58·717
3. Refining—Puddling Furnaces, &c.	36·175	32·721
4. Casting, Drawing, Rolling, &c.	5·959	6·073
5. Moulding, Casting, &c. Steel	2·279	2·385
	100·	100·

The average prices of the different kinds of fuel used in each of the above two years, were:—

	1836	1841
	s. d.	s. d.
Wood Charcoal, per ton	54 10	57 5
Coal, per ton	18 5	14 7
Coke, per ton	20 3	20 2
Wood, per stère	2 10	4 7

The continually increasing cost of wood in France, should tend, in conjunction with the continually decreasing cost of coal, to alter the existing system of manufacture; but under any circumstances, the iron-masters in that country must be placed at a disadvantage in competing with countries where ironstone is found on the same spot with the fuel and

the flux needful for its reduction. We have seen that the cost of coal at the places of production in France was in 1836, per ton, 11s. 3½d., and in 1841, per ton, 7s. 9½d., and it therefore appears that the expense of carriage from the collieries to the iron-works amounted on the average to 7s. 1½d. per ton in 1836 and to 6s. 9¼d. in 1841, or more than the entire cost of the fuel used by English iron-masters.

The quantity of iron made in France in each year from 1837 to 1841 appears from the official documents to have been as follows:—

	Pig Iron.	Malleable Iron.
	Tons.	Tons.
1837	331,679	224,613
1838	347,776	224,195
1839	350,172	231,761
1840	347,773	237,379
1841	377,142	263,747

How inadequate must be the native production of this all important metal, as here shown, to supply the wants of an extensive and populous country like France! If the rules of common sense were allowed to regulate the conduct of nations in matters of this nature, we should assuredly see that every possible inducement were held out to make good the deficiency by importations from foreign countries. The French government has, on the contrary, chosen to throw the most serious obstacle in the way of such importations, and under the pretext of stimulating the production at home, has loaded iron of foreign make with all but prohibitory duties. Pig iron is subject to a rate equal to 3l. 2s. 6d. per ton. Plates, bars, and rods have to pay duties according to their dimensions, varying from 8l. 7s. 4d. to 16l. 14s. 9d. per ton; and such articles as are not actually prohibited, and to which a higher process of manufacture has been applied, for example wire, are charged with a duty equal to 26l. 15s. 8d. per ton. At these rates the importations of iron into France are, as might be expected, small in quantity, not in any one year reaching 50,000 tons. The payment of high duties upon even this small quantity is, however, a proof of the excessive prices which the consumers are forced to pay for all that they use—prices from 100 to 250 per cent. greater than are paid in England; and the slow progress made by the iron-masters of France in providing for the wants of the country should convince the government that the method they have adopted for stimulating production by means of high protective duties, is but ill adapted to that end. It would most probably be found upon inquiry, that the iron-masters in that country are in fact but little interested in the question. By the price which they obtain for their iron they are governed in the price which they can afford to pay for the wood fuel which they use; or it may be more correct to say, that the proprietors of woods in the iron districts exact from the iron-masters the highest price which the market value of their iron will enable them to give, and thus the protecting duty on iron is a benefit only to a proportion of the proprietors of woods, at the expense of the rest of the community.

The small quantity of iron imported from other countries into France is almost wholly in the first stage of manufacture. There are no means

afforded in the official accounts of that country for ascertaining the proportionate quantities of various descriptions of the metal imported; but as the duty levied in 1841 and 1842 upon all kinds of iron averaged 3*l.* 11*s.* 9*d.* per ton, it is evident that nearly the whole importations must have consisted of pig-iron. It is probable that the small importations of other kinds which are made are confined, or nearly so, to the produce of this country, from the greater cheapness of our market; and we know that the great bulk of our shipments to France are of pig-iron. In 1842, out of 23,428 tons of all kinds of iron shipped by us to that country, 16,464 tons were pig-iron; and in 1843 the proportion was still greater, having been 22,103 out of 29,626 tons,—in both cases more than 70 per cent. of the whole shipments.

A considerable relaxation of the French tariff, whereby the purchase of iron from other countries would be encouraged, would doubtless prove of benefit to those of us who are engaged in its production; while the benefit which France must derive in various ways from having so important a material in greater abundance, would, by advancing the general wealth of the country, make France a more desirable customer; but in the meantime, the course which the French government pursues on this and other points of commercial policy, is by no means an un-mixed evil to us, through the obstacles which are thereby raised by itself against the manufacturers of that country in their competition with us in third markets.

The production of metals, other than iron, is so inconsiderable as to be a matter of no national importance in France, and it does not at all interest us except as it points out that country as qualified to be a good customer for a portion of our superabundance. The following figures will show that, small as was the production of those metals in 1836, it is now even less.

	1836		1811	
	Quantity.	Value.	Quantity.	Value.
Lead Tons.	713	£. 16,209	638	£. 12,559
Silver Ozs.	81,152	16,650	73,680	18,340
Antimony . . . Tons.	411	12,121	112	6,198
Copper „	102	7,877	100	11,147
Manganese . . „	1,667	6,106	1,978	5,899

These quantities are of course quite inadequate for the supply of the kingdom, and the importations for consumption (*commerce spécial*) into France in 1841 and 1842 were as follows:—

	1811	1812
Lead Tons.	17,375	18,671
Copper „	9,770	10,814
Manganese . . „	1,341	1,295

The greater part of the lead was obtained from Spain, but England supplied of that metal 2,519 tons in 1841 and 5,027 tons in 1842. The copper was principally imported from England, viz., 6,830 tons in 1841 and 8,300 tons in 1842, a great part being the produce of foreign ore smelted in England.

The declared value of British metals and of coals exported to France in 1842 was as follows:—

Iron and Steel	£105,172
Hardwares and Cutlery	90,035
Copper	682,833
Lead	91,687
Tin	79,223
	<hr/>
Coals	1,048,950
	173,278
	<hr/>
	1,222,228

The quantities of iron and steel exported in that year and in 1843 to France were:—

	1812				1813			
	Tons.	cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.
Bars	4,566	1	3	26	4,237	9	2	3
Bolt and Rod	174	17	..	..	295	2	2	..
Pigs	16,464	..	..	..	22,103	..	..	..
Cast	52	16	..	9	324	..	3	14
Wire	39	..	1	8	39	..	..	22
Anchors, &c.	289	8	..	4	444	17	..	23
Hoops	506	14	2	..	443	11	1	16
Nails	1	1	3	7	3	11	1	16
Other kinds	834	13	2	9	1,153	7	2	3
Old for re-manufacture	172	..	..	..	341	..	..	..
Steel	327	7	1	9	241	..	2	25
	<hr/>							
	23,428	0	2	16	29,626	1	1	10

Note.—Since the foregoing statement was drawn up, the “*Résumé des Travaux Statistiques de l’Administration des Mines en 1843*,” detailing the mining operations carried on in France in 1842, has been received. From this statement it appears, that the production of coal, lignite and anthracite, amounted in that year to 3,592,084 tons, being an increase over the preceding year of 181,884 tons, or 5½ per cent. The excess of the quantity imported over that exported, which in 1841 was 1,569,692 tons, amounted in 1842 to 1,611,331 tons, leaving from this source an increase for internal use of 41,639 tons, and showing the total increase of consumption to have been 4½ per cent. over the year 1841. The production of pig iron in 1842 exceeded that of 1841 by 22,314 tons, or not quite 6 per cent. Of bar iron the increase was 21,076 tons, or 8 per cent., and the value was also increased by 256,731*l.*

Report on the Experience of the St. Marylebone Infirmary, since 1827, with respect to Admissions, Duration of Treatment, Mortality, and other Statistical Results, according to Age and Sex.
By JOHN CLENDINNING, M.D. Oxon., F.R.S., Physician to the Infirmary.

[Read before the Statistical Section of the British Association at York, October 1st, 1844.]

IN 1838 a Committee was appointed by the Council of the Statistical Society for "collecting the statistics of life," as shown more especially in the leading medical charities of the country, and circulars were issued to 46 London institutions, and to about 80 similar charities in the provinces; amongst the former was the parochial infirmary of St. Marylebone. In consequence of this application conveyed to the guardians and directors of the poor for St. Marylebone, by the author of this paper, permission was given him by the guardians to examine the records of the infirmary, and report the results of his inquiry to the Committee. Circumstances beyond the control of the writer, prevented the preparation of a report of the experience of the infirmary, in due time for the use of the Committee. Since then the writer has been enabled to complete those analyses for which suitable materials were then placed at his disposal. He has, further, since been able to make use of returns made to the Poor Law Commissioners, and to the guardians, for various purposes, and at various times, all of which have more or less bearing on the subject of the statistics of life. Some time since, the author communicated to some leading members of the statistical section of "The British Association for the Advancement of Science," the fact that he was in possession of these materials; and undertook, with their sanction, to draw up a report to be presented to the ensuing meeting of the Association, if his other engagements should admit of his completing it in time, and if not at the next meeting, then at the meeting of the following year. He has subsequently had communication again with the members of the statistical section above alluded to, and with the treasurer of the Association, and has the honour now, with the sanction of those gentlemen, to present his report in as complete a condition as the materials at his disposal have admitted of.

Preliminary General Observations respecting the Infirmary.

The St. Marylebone Infirmary, or "Sick House," forms a portion of the parochial establishment for the relief of the poor of St. Marylebone. It adjoins, but is distinct from, the "Workhouse," having for the most part officers and servants of its own. Its professional staff consists of 3 honorary Physicians—an honorary Physician Accoucheur—2 honorary Surgeons—a House Surgeon—3 assistant House Surgeons—and 2 Dispensers—in all 12 persons. The admissions to its wards come partly from out of doors, and partly from the adjoining workhouse. It receives indifferently both sexes, all ages, and all diseases, except small-pox. The right of admission is legally limited to persons locally resident for a minimum time; but in practice the legal limit as to residence, is often, as I understand, over-stepped in favour of urgent sickness, and extreme destitution; and such transgressions of law, are happily not only justifiable but inevitable, in consequence of the

recent advances in the mind of the more intelligent classes, towards a healthy state of opinion and feeling with regard to the poor.

As admission into this "Sick House" or Infirmary is, morally at least, a right of the locally resident sick poor of a very large and populous parish; the number of its inmates is subject to all the influences of season, weather, epidemic constitution, commercial activity, and other sources of fluctuation; so that most years the sick population has varied from 150 or 160 in the fine season (about June usually) to 300 or 320, 330, and upwards; the extreme in this direction happening usually in January. These numbers are exclusive of the much larger number of chronic or slight cases prescribed for in the forenoon, whether coming from the workhouse or their own homes, at the Infirmary, by the resident medical officers.

In common with other metropolitan asylums of sickness, general as well as parochial, the registers of the Infirmary were formerly kept in an old-fashioned and very imperfect manner, and were ill adapted to forward many of the objects of the medical statist. Since 1840, however, a better system has been in operation. At the suggestion of the writer, a form of registration has been adopted, substantially in accordance with the views of the London Statistical Society, and coinciding in most points with that recommended by the Committee on Hospital Statistics: so that hereafter the records of the Infirmary may be expected to furnish very valuable materials for numerical investigation of the laws of disease, more especially regarding the disorders of infancy and early childhood, and of extreme age, which are all comparatively little known in the wards of the general hospitals; also regarding the duration of several classes of incurable disease, organic or functional only, which are commonly either not admitted, or discharged after a short stay, and respecting which it is of the greatest importance, with a view to the extension of the practice of life assurance to its legitimate limits, that accurate statistical information should be obtained.

Materials for this Report.

The facts that collectively form the subject matter of this report, are contained in 11 chief tables, exclusive of subordinate tabulations illustrative of those 11 principal.

1. The first table presents a general view of the experience of the infirmary, as to annual admissions and deaths, with their ratios, in 17 years, commencing with July 1827, ending with June 1844, without distinction of sex, age, &c.

2. The second table gives the admissions of 8½ years, ending with March 1836, and distinguishing sexes and ages, but not years.

3. Table III. presents similar facts, similarly analysed and arranged, for 4½ years, ending with June 1840.

4. Table IV. gives the duration of treatment for 8½ years, ending March 1836, and stated in weeks and lunar months, with distinction of sex only.

5. Table V. gives the like facts in like order for 4½ years, ending June 1840.

6. and 7. Table VI. gives the average stay in the sick-house, according to sex and age, for the period 1827—1836; and Table VII. gives the like results for the subsequent period, 1836—1840.

8 and 9. Tables VIII. and IX. refer solely to the mortality, which is presented in two different aspects in each table, and for two different series of years, viz., 1827—1836, and 1836—40. A mortality is presented, 1. in its relation to the admissions of each sex at *each* age; and 2. to the whole mortality of each sex at *all* ages.

10. Table X. shows the distribution of the admissions and deaths over the months and seasons of 11 $\frac{3}{4}$ years ending in 1839.

11. Table XI. gives the admissions for 6 $\frac{3}{4}$ years ending in March 1844, distinguishing whether from W. H. (workhouse), or O. D. (out of doors); and whether under the physicians or surgeons.—The discharges, whether—1. cured,—2. relieved or incurable,—3. by desire uncured,—4. irregular,—5. to a lunatic asylum,—6. from the lying-in ward.—The deaths for the same period, whether under physicians or surgeons, each quarter. It gives, further, the average stay in the wards, whether of physicians or surgeons; also the gross quarterly amounts of out-patients prescribed for in the morning by the resident officers.

I regret that the shape in which the official records of the infirmary have been kept until very lately, has not admitted of any satisfactory analysis, including distinction of disease, or of trade or occupation.

Mr. Farr suggested to me that a table of mortality, in which the deaths should be classified according to duration of sickness, might be of much interest, and for benefit societies, and other assurance associations, might be of considerable value. I have to regret my inability to carry out the recommendation of so high an authority on this occasion.

TABLE I.—Admissions and Deaths in each Year from 1827 (June 31st) to 1844 (July 1st); in all 17 Years.

Years.	Admissions.	Deaths.	Ratios per Cent.
1827 (last 6 months)}	1554	99	6.33
1828	2989	221	7.4
1829	2837	246	8.67
1830	2707	249	9.2
1831	3131	292	9.33
1832	2437	237	9.7
1833	2605	308	11.0
1834	2620	259	9.9
1835	2154	288	18.33 nearly.
1836	2358	358	15.25 "
1837	2480	444	18.0 "
1838	2569	360*	13.66
1839	2713	322	11.8
1840	2789	319	11.4
1841	3143	382*	12.15
1842	2353	335	14.3
1843	2978	377	13.0
1844 (6 months)}	1615	171	10.6

* The mortality of each of those years (1838 and 1841) has been erroneously given by the registrar of the district. (See Report for 1843, page 509.) I have ascertained the fact by personal inquiries.—J. C.

From this table it appears that the admissions of those 17 years (*i.e.* 16 complete years, 1828—1843, and two half years), amounted col-

lectively to about 46,000, (46,028), and that they varied from 2154 (in 1835), which was the minimum received in any one year of the period, to 3143 (in 1841), which was the maximum of annual admissions. The extreme limit of fluctuation as to receptions, seems to have amounted to about 1000 persons. The annual average of admissions, was about 2700 (2707 $\frac{1}{2}$).

From the same table, it appears that the deaths for the 17 years ending with June 1844, were 5367; that the annual deaths on an average were 315 $\frac{3}{4}$; and that the proportion borne by the deaths in the aggregate to the admissions collectively, was 11.6 per cent.

Of late years the mortality appears to have risen very considerably, viz., from less than 7 per cent. in 1827, on the admissions, to 18.33 on the admissions of 1835, since which the mortality has not been lower in any year than 11.4 per cent., while on the 8 years, 1836—1843, the mortality has averaged 14.2 annually.

If we divide the 16 complete years (1828—1843) into two series of eight years each, ending with 1835 and 1843 respectively, we shall have for the former series (1827—1835) an—

Annual average of admissions	2,685
" deaths	262.5
Lowest mortality on admissions (1828) per cent.	7.4
Highest mortality " " (1835) " "	18.33
Average " " " " "	9.7

Whereas, for the latter series (1836—1843), we shall have the following, viz.—

Average annual admissions	2,674
" deaths	362.12
Lowest mortality on admissions (1840) per cent.	11.4
Highest mortality " " (1837) " "	18.0
Average mortality annually " "	13.50
Difference (numerically) in favour of the latter } series, nearly	30.0

The causes of the increased mortality of late years are of course various: one of them is suggested by this table;—the domestic accommodations in the workhouse have, it may be presumed, sensibly fallen short of late years, relatively to the pauper parochial population, causing a more vigilant scrutiny of claims and sedulous sifting of cases, and a generally diminished facility of admission for less urgent sickness.

I perceive by the last Report of the Census Commissioners, and the Report of the Registrar-General for 1843, that Marylebone must have increased some 14 or 15 per cent., in the period 1831—1844. I perceive also that the expenditure on account of the parochial poor has risen much of late. It was, for example, according to the Registrar-General, 26,438*l.* in 1839, 29,917*l.* in 1840, 35,517*l.* in 1841, and 41,476*l.* in 1842; being near 40 per cent. increase in 4 years; yet the admissions of the former 8 years (1828—1835) exceeded those of the latter series (1836—1843) by 97. It is probably in accordance with the view above suggested, that we find the smaller number of receptions of the second series yield, nevertheless, nearly 800 (797) more deaths. But other causes have concurrently contributed to the increase of mortality, especially grievous commercial fluctuations and depression, and an epidemic constitution, to which we owe the frightful rather than destructive spasmodic cholera, the far more mischievous influenza of various

years since 1831, and the low spotted fevers and generally adynamic and unfavourable character of disease of the same period. But on these topics I am not probably an unexceptionable commentator, having been myself on the professional staff of the parish, as physician to the parochial sick-house or infirmary since some time in 1834; nor do I in fact feel myself sufficiently at liberty to discuss satisfactorily the causes of the increased mortality exhibited above. I shall content myself with affirming that it has *not* arisen from any paucity of qualified medical officers, or any deficiency in the sick-house of any means or appliances, whether medicinal or dietetic, usually resorted to, or that have been judged necessary by the physicians or surgeons in the service of the guardians.

TABLE II.—Admissions for 8½ Years, ending with March 1836, according to Sex and Age.

Age.	Males.		Females.	
	Number.	Ratio.	Number.	Ratio.
Under 5 years	452	3·82	475	4·37
5 to 10 ,,	1,547	13·09	1,452	13·37
10 — 15 ,,	2,026	17·09	1,129	10·39
15 — 20 ,,	1,042	8·81	1,099	10·12
20 — 30 ,,	1,753	7·41	2,015	9·27
30 — 40 ,,	1,418	6·	1,315	6·5
40 — 50 ,,	1,151	4·86	1,015	4·81
50 — 60 ,,	1,065	4·5	8·3	3·97
60 — 70 ,,	881	3·72	860	3·93
70 — 80 ,,	{ 387	..	{ 479	..
80 — 90 ,,	{ 96 } 486	0·83	{ 118 } 610	5·05
90 — 100 ,,	{ 3	..	{ 13 }	..
Totals . . .	11,821	100	10,863	100
Under 15 ,,	4,023	34·5	3,056	28·1

TABLE III.—Admissions for 4½ Years, ending with June 1840; distinguishing in like manner Ages and Sexes.

Age.	Males.		Age.	Females.	
	Number	Per Cent.		Number.	Per Cent.
Under 1 year	126	{ 2·5 } 8·3	Under 1 year	104	{ 1·8 } 6·6
1 to 5 years	287	{ 5·8 } 43·8	1 to 5 years	274	{ 4·8 } 20·6
5 — 10 ,,	860	{ 17·5 } 43·8	5 — 10 ,,	1,040	{ 18·1 } 36·7
10 — 15 ,,	890	{ 18·	10 — 15 ,,	650	{ 11·7 }
15 — 20 ,,	262	{ 5·3	15 — 20 ,,	348	{ 6·5 }
20 — 30 ,,	443	{ 9·	20 — 30 ,,	764	{ 13·4 }
30 — 40 ,,	531	{ 10·8	30 — 40 ,,	631	{ 11·4 }
40 — 50 ,,	438	{ 8·8	40 — 50 ,,	520	{ 9·2 }
50 — 60 ,,	450	{ 9·2	50 — 60 ,,	450	{ 8·
60 — 70 ,,	413	{ 8·4	60 — 70 ,,	486	{ 8·6
70 — 80 ,,	189	{ 3·8 } 16·3	70 — 80 ,,	255	{ 4·5 } 14·1
80 — 90 ,,	22	{ 212 } 4·1	80 — 90 ,,	58	{ 1·03 } 5·5
90 — 100 ,,	1	{ 1 }	90 — 100 ,,	7	{ 0·12 }
	4,912	..		5,590	100·00

The results given in these two tables, have been obtained at different times; and it is partly for this reason, that I now present them separately.

From the former table (No. II.) it appears that of 11,821 males admitted, 4,023, or 34·5 per cent., were under 15 years of age, and 487, or between 4 and 5 per cent. were above 60 years of age, the rest having been distributed in a regularly decreasing rate amongst the ages between 15 and 60. It appears, likewise, that of 10,863 females admitted at all ages, 3056, or 28·1 per cent., were under 15, and 660, or nearly 6 per cent., above 60; the intervening ages receiving their shares of the admissions in a gradually decreasing proportion, from 15 to 60. From the latter table (No. III.) it appears that of 4912 male admissions, 2163, or 43·8 per cent. were under 15, while 625 or 12·5 per cent. were over 60; and on the female side, of 5590 admissions, 2068, or 36·7 per cent., were under 15, and 796, or 14·1, above 60; so that in the former period, about 17·0 per cent. males, and 18·0 per cent. females, of the admissions at all ages, were under 10 years of age; while in the second period we have 25·8 per cent. males, and 25·0 per cent. females, under 10 years of age. And above 60 we have a similar numerical preponderance in favour of the second period, viz., 12·5 of the males at all ages above 60, and 14·1 of the females. This difference between the two periods, if not accidental, gives countenance to the supposition above alluded to, of increased stringency of poor law administration of late years.

TABLE IV.—Duration of Treatment in Weeks or Months, with distinction of Sex, 1827 to 1836.

Duration of Treatment.	Females.		Males.	
	Number.	Per Cent.	Number.	Per Cent.
Under 1 week	2,404	22·13	3,134	26·50
1 to 2 weeks	2,154	19·83	2,649	22·40
2 — 3 ,,	1,556	14·32	1,612	13·64
3 — 4 ,,	1,114	10·25	1,143	9·67
4 — 5 ,,	820	7·54	777	6·57
5 — 6 ,,	553	5·09	539	4·56
6 — 7 ,,	408	3·75	376	3·18
7 — 8 ,,	299	2·75	300	2·54
8 — 12 ,,	719	6·62	622	5·26
3 — 4 months	343	3·16	275	2·33
4 — 5 ,,	167	1·54	154	1·30
5 — 6 ,,	102	·94	88	·75
6 — 7 ,,	55	·51	47	·40
7 — 8 ,,	47	·43	30	·26
8 — 9 ,,	27	·25	13	·11
9 — 10 ,,	15	·14	19	·16
10 — 11 ,,	14	·13	13	·11
11 — 12 ,,	4	·4	7	·6
12 — 13 and over	62	·58	23	·20
	10,863	100·00	11,821	100·00

From this table it appears that in the period 1827—1836, about 26·5 males, and 22·13 females were discharged or died in the first week after admission; that 72 per cent. males, and 66·5 females were

discharged, or died, within the first lunar or calendar month after admission; and that of the males 94, and of the females 92 per cent. were discharged or died within three lunar months after their admission.

TABLE V.—Duration of Treatment in Weeks, with distinction of Sex, 1836 to 1840.

Duration of Treatment.	Males.		Duration of Treatment.	Females.	
	Number.	Per Cent.		Number.	Per Cent.
Under 1 week	1,173	23.9	Under 1 week	1,014	18.13
1 to 2 weeks	976	19.8	1 to 2 weeks	1,129	20.2
2 — 3 „	673	13.7	2 — 3 „	884	15.8
3 — 4 „	542	11.3	3 — 4 „	604	12.2
4 — 5 „	421	8.6	4 — 5 „	444	8.
5 — 6 „	225	4.6	5 — 6 „	310	5.5
6 — 7 „	181	3.68	6 — 7 „	228	4.
7 — 8 „	130	2.64	7 — 8 „	178	3.18
8 — 12 „	323	6.57	8 — 12 „	401	7.17
12 — 24 „	205	4.2	12 — 24 „	318	5.6
24 and over .	60	1.2	24 and over .	77	1.3
Over 52 weeks	3	0.06	Over 52 weeks	3	0.05
	4,912	100.00	..	5,590	100.00

TABLE VI.—Duration of Treatment, according to Age and Sex, 1827 to 1836.

Age.	Males.		Females.	
	Number of Cases.	Average Duration.	Number of Cases.	Average Duration.
Under 5 years	3,134	30 days	2,404	35 days
5 to 10 „	2,649	21	2,154	23
10 — 15 „	1,612	17	1,556	24
15 — 20 „	1,143	19	1,114	30
20 — 25 „	777	26	820	33
25 — 30 „	539	28	553	32
30 — 35 „	376	31	408	36
35 — 40 „	300	34	299	36
40 — 45 „	622	32	719	31
45 — 50 „	275	31	343	34
50 — 55 „	154	33	167	39
55 — 60 „	88	33	102	39
60 — 65 „	47	37	55	38
65 — 70 „	30	37	47	39
70 — 75 „	13	34	27	38
75 — 80 „	19	30	15	34
80 — 85 „	13	20	14	38
85 — 90 „	7	15	4	23
90 — 100 „	23	42	62	58
General Totals and Averages . .	11,821	27.90	10,863	32.4

TABLE VII.—Duration of Treatment in Days, according to Age and Sex, 1836 to 1840.

Age.	Males.			Females.		
	Number.	Total Days.	Average Duration in Days.	Number.	Total Days.	Average Duration in Days.
Under 1 year	126	3,716	29.5	104	3,543	34.
1 to 5 years	287	10,703	37.	274	9,228	33.5
Total under 5 years . .	413	..	33.2	378	..	33.7
5 to 10 years	860	23,409	27.2	1,040	28,646	27.4
10 — 15 „	890	19,381	21.7	650	13,520	20.7
15 — 20 „	262	6,693	21.3	348	10,692	28.8
20 — 30 „	443	13,276	30.	764	25,270	33.
30 — 40 „	531	16,978	32.	634	22,200	35.
40 — 50 „	438	12,513	28.8	520	19,533	37.5
50 — 60 „	450	14,239	31.3	450	17,047	37.7
60 — 70 „	413	12,876	31.	486	16,041	33.
70 — 80 „	189	4,654	24.6	255	8,853	34.5
80 — 90 „	23	551	23.25	65	2,154	33.
90 — 100 „	..	..	..	..	..	32.4
Totals . .	4,912	138,989	..	5,590	176,727	..

From Table V. it appears that of the patients admitted in the second period, 23 per cent. males, and 18.13 females, were discharged or died within the first week of treatment; that 68.7 males, and 67.5 females, were discharged or died in the first lunar month after admission; and that of the males 93 per cent., and of the females 98.5, were discharged by cure, or otherwise, within three lunar months after admission.

Tables VI. and VII. give the duration of treatment in another shape, and from a different point of view. In these tables the admissions for the two series of years are classified according to age and sex, and average stay in the house. From the former table (No. VI.), it appears that the shortest stay made by any class of males was 17 days, which was the time of residence of those between 10 and 15 years of age; on the female side the shortest stay was that of the class 5 to 10, viz., 23 days. In each sex the longest stay made by any of the first four quinquennial periods was by the class 0—5 years of age, viz., 30 days for the males and 35 days for the females, whereas the other quinquennial periods were thus, viz. :—

Age.	Males.	Females.
	Days.	Days.
5 to 10 years	21	23
10 — 15 „	17	24
15 — 20 „	19	30

The following gives the contrasted results for the rest of life:—

Age.	Males.		Females.	
	Days.	Days.	Days.	Days.
20 to 30 years	27	32.5	32.5	36
30 — 40 „	32.5	36	32.5	39
40 — 50 „	33	39	32.5	42.9
50 — 60 „	33	42.9	39	
60 — 100 „	34.9		42.9	

In every class, with one exception (viz., class 40 — 50 years of age), the female average stay was from $3\frac{1}{2}$ to 8 days in excess as compared with that of the male corresponding classes.

From the 7th table a nearly similar excess on the females in duration of treatment or stay in the wards is observable, being, however, conspicuous principally in the ages after 15. From this table it appears that the 0 — 5 years of age in each sex was between 33 and 34 days in the house (viz., males 33.2, and females 33.7 days); that between 5 and 10 the stay of the sexes was equal (viz., males 27.2, and females 27.4 days); that the classes 10 — 15 differed little (viz. males 21.7, and females 20.7 days); but that of the classes 15 — 20, the females staid a week longer than the males (viz., 28.8 and 21.3 days); and after 20 years of age there is an excess at every age on the side of the females, varying from 1 to 10 days. Above 60 the case stands thus, viz., 60 — 100, males 26.3 days, females 33.5 days. The excess of adult females in these two tables is referable, I presume, mainly to the relatively high value of male labour and low value of female; to the comparative impatience of official authority and hospital discipline of the males; and to the preponderance of widows above widowers amongst the population.

TABLE VIII.—Mortality on the Admissions at each Age, and on the Mortality at all Ages—1827 to 1836.

Age.	Males.			Females.		
	Deaths.	Deaths to Admissions.	Deaths to whole Deaths.	Deaths.	Deaths to Admissions.	Deaths to whole Deaths.
Under 5 years	64	Per Cent. 14.15	Per Cent. 5.57	87	Per Cent. 18.31	Per Cent. 7.52
5 to 10 „	23	1.48	2.8	28	1.92	2.42
10 — 15 „	26	1.28	2.26	26	2.2	2.25
15 — 20 „	24	2.30	2.09	37	3.36	3.20
20 — 25 „	34	8.04	12.28	37	7.89	13.74
25 — 30 „	107						141	122	159
30 — 40 „	168	11.84	14.63	151	11.48	13.05
40 — 50 „	167	14.50	14.54	146	13.97	12.62
50 — 60 „	187	17.55	16.28	170	19.69	14.69
60 — 70 „	194	22.02	16.89	183	21.27	15.82
70 — 80 „	120	31.	10.45	137	28.6	11.84
80 — 90 „	34	34.7	2.96	33	25.19	2.85
90 and upwards						
General totals and averages	1,148	9.71	100.00	1,157	10.65	100.00
60 — 100 years	..	29.3	10.10	..	25.	9.90

TABLE IX.—Mortality on the Admissions at each Age, and on the Mortality at all Ages—1836 to 1840.

Age.	Males.			Females.		
	Deaths.	Deaths to Admissions.	Deaths to whole Deaths.	Deaths.	Deaths to Admissions.	Deaths to whole Deaths.
Under 1 year	26	Per Cent. 20.61	Per Cent. 3.8	18	Per Cent. 17.3	Per Cent. 3.
1 to 5 years	26	9.05	3.8	34	12.4	5.7
5 — 10 „	12	1.3	1.8	24	2.29	4.
10 — 15 „	13	1.46	1.8	8	1.22	1.3
15 — 20 „	18	6.87	2.6	13	3.7	2.
20 — 30 „	63	14.2	9.4	68	8.86	11.4
30 — 40 „	123	20.1	18.3	72	11.3	12.
40 — 50 „	101	23.	15.	76	14.61	12.
50 — 60 „	98	21.5	14.	83	18.4	14.
60 — 70 „	110	26.5	16.3	100	22.7	16.8
70 — 80 „	69	36.5	10.4	70	27.4	11.8
80 — 90 „	11	50.	1.7	25	43.	4.2
90 — 100 „	1	100.	0.015	3	42.9	0.05
Totals	671		100.	594		100.
0 — 5 years	52	12.5	7.7	52	13.7	8.
60 — 100 „	191	37.6	9.5	198	45.3	10.9

TABLE IX. a.—Mortality according to Age of both Sexes. Comparative View of the Results of the 8th and 9th Tables.

Ages.	Mortality on Admissions.		
	First Observation.	Last Observation.	Differences.
Under 5 years	16.26	14.85	- 9.0 per cent.
„ 10 „	1.70	1.84	+ 8 „
„ 15 „	1.79	1.34	- 25 „
„ 20 „	2.83	5.20	+ 50 per cent nearly.
„ 30 „	7.95	11.52	+ 30 per cent.
„ 40 „	11.66	17.24	+ 32 „
„ 50 „	14.23	18.96	+ 25 „
„ 60 „	18.62	19.88	+ 6 „
„ 70 „	21.64	23.53	+ 16 „
„ 80 „	29.80	29.33	
Above 80 „	29.94	48.27	
Mortalities above 60 of the two Series of Years	=27.12	=33.70	

In the former table we observe for the class 0 — 5 of each sex a mortality very heavy and not equalled in the subsequent ages under 45 to 55; that of the males 0 — 5, was 14.15 on the admissions and 5.57 on the mortality at all ages; while the mortality of the females was still heavier, having been (females 0 — 5) 18.31 on the admissions and 7.52 on the whole female mortality; while the highest mortality under 50 for either sex was (males 40 — 50) 14.5 per cent. on the admissions. Over 60 the mortality on the admissions was—males 29.3, females 25.; and to the whole mortality at all ages it was, males 10.1, females 9.9.

At the ages intervening between 5 and 60, there was a tolerably close approximation between the sexes in most instances; the largest difference being 4.3 per cent. and in the class above 60. In both sexes the mortality on the admissions was much lowest at the quinquennial ages, viz., from 5 to 20, being as under:—

Age.	Males.		Females.	
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
5 to 10 years	1.48	1.92		
10 — 15 „	1.28	2.2		
15 — 20 „	2.30	3.36		

After 20 the mortality on the admissions increases steadily with either sex from about 8 per cent. at 30, to above 25 per cent. at above 60. In Table IX. (the latter of those under present consideration) we perceive that the mortality on the admissions under 1 year of age was 20.6 males, and 17.3 females per cent., while the mortality from 0—5 was—males 12.5, females 13.7. In either sex the proportion of the whole mortality falling in between 0 (or birth) and 5, was about 8 per cent. After 5 the mortality of either sex falls to near the minimum, being lowest of all at 10—15, viz., 1.46 for the males and 1.22 for the females. After 15 it rises rapidly to the maximum, which, of course, occurs after 60, viz., males 37.6, females 45.3 per cent.; the male deaths over 60, being 9.5, and the female deaths 10.9, of the whole mortality of each sex.

In a subordinate table (IX. a) I have thrown together the results of Tables VIII. and IX., with a view to show the increase of mortality of late years, and the mode of its distribution over the ages. From this it appears that the augmented pressure has been borne principally by the adults. At every age, except 0—5 and 10—15, there is a considerable balance against the ages after 15, and this amounts in different instances to 6 per cent. (50—60), 8 per cent. (5—10), 16 per cent. (above 60), 25 per cent. (40—50), 30 per cent. (20—30), 32 per cent. (30—40), and even to 50 per cent. (15—20). These tables seem to show that of late years some diminution must have occurred in the facilities of procuring admission into the sick-house for slighter cases and less urgent stages and forms of disease, or else that the causes of disease and death, after 15, have latterly attained enormous force in some way that I am unable to see. There has been in the whole period of observation no important change in the hands, resources, or domestic management of the sick-house, with the exception of improvements in economical and other details.

From the following table, which, though not covering the whole of the second series of years, may still be regarded as fairly exemplifying the experience of the Infirmary with respect to season and its effects, it appears that the month of largest admissions was January, which averaged (on 12th January) 264, while the month of least admissions was September, which averaged 194 on 12th September. Next to January came March, with 250.5 admissions; then October, with 229; then December, with 226; then November (220); then August (218); then April (217); and then February (without correction = 214). After September the lowest were—June (197); then May (204.5); then July (210).

TABLE X.—Average Admissions, Deaths, and Mortality, in the Months and Quarters, of Eleven Years and two-thirds, ending in 1839.

Months.	Averages of		Ratio of Admissions to Deaths.	Number of Months.	Mortality per Quarter on Admission.	Order according to	
	Admissions.	Deaths.				Admissions.	Deaths.
January .	264	37	{ :: 7.1 : 1 = 14 per cent. }	12 Jan.	1st Quarter = 12 per cent.	1	1
February .	214	29	{ :: 7.3 : 1 = 13.5 per cent. }	12 Feb.		8	2
March .	250½	24	{ :: 10.5 : 1 = 9.5 per cent. }	11 Mar.		2	9
April .	217	26¾	{ :: 8.1 : 1 = 12.2 per cent. }	11 Apr.	2nd Quarter = 11.3 per cent.	9	3
May .	204½	23.1	{ :: 8.8 : 1 = 11.3 per cent. }	11 May		7	5
June .	197	20½	{ :: 9.6 : 1 = 10.3 per cent. }	11 June		11	6
July .	210	21	{ :: 10 : 1 = 10 per cent. }	12 July	3rd Quarter = 9.6 per cent.	10	7
August .	218	20¾	{ :: 10.5 : 1 = 9.5 per cent. }	12 Aug.		6	9
September	194	22¾	{ :: 10.5 : 1 = 9.5 per cent. }	12 Sept.		12	9
October .	229	22½	{ :: 10.07 : 1 = 10 per cent. }	12 Oct.	4th Quarter = 10.6 per cent.	3	8
November	220	27½	{ :: 9.9 : 1 = 10.1 per cent. }	12 Nov.		5	7
December	226	18¼	{ :: 8.3 : 1 = 12 per cent. }	12 Dec.		4	4

Taking the months in the usual groups or seasons, and allowing for the inequality in the number of the months (column 5), we have the following average of admissions, viz.:—

1st Quarter, January to March .	728.5 per cent.
2nd Quarter, April to June . . .	618.5 „
3rd Quarter, July to September .	622 „
4th Quarter, October to December	675 „

According to these figures, there was an excess in the admissions for the first quarter of the year, and without any correction on account of February, over each of the middle quarters, of 14 to 15 per cent., and an excess for the last quarter over each of the two preceding quarters of about 7 per cent. When we direct attention to the mortality of the months, we find the results different, in some cases widely, from that of the admissions. As to deaths January stands again at the head, viz., 1 in 7.1, or nearly 14 per cent. on the admissions. Next comes February (which taken at 28 days was but the 8th in the order of admissions), with a mortality of 1 in 7.3, or 13.5 per cent.; then follows April, with 1 death to 8.1 admissions, or 12.2 per cent. Next to April was December, with deaths 1 to 8.3 admissions, or about 12 per cent. No other month gave more than 10 per cent. mortality, except May, which gave 11 per cent. Now taking the mortality in quarters, we obtain the following results, viz.:—

1st Quarter, January to March .	12 per cent.
2nd Quarter, April to June . . .	11.3 „
3rd Quarter, July to September .	9.6 „
4th Quarter, October to December	10.6 „

TABLE XI. Abstracted from Returns made Quarterly to the Board of Guardians Quarterly Admissions, whence, and to what Wards; the Discharges, whether Cured Number in the Wards, Medical and Surgical; the Average Stay in the Wards,

	Admissions.			Discharges.				Lying-in Ward.	Total Out Patients.	Sent to a Lunatic Asylum.	
	From W. H.	From O. D.	Total.	Cured.	Incurable, or Relieved.	By Desire, or Cured.	Irregular.				Total.
1837											
Oct. 1 to Dec. 31.	351	242	593	363	93	12	2	470	21	1,161	4
1838											
Quarter to 31 Mar.	438	221	659	411	97	20	2	530	25	1,347	..
„ 30 June	381	225	607	435	140	25	..	600	20	1,125	6
„ 30 Sept.	386	224	610	395	138	19	1	553	16	1,096	9
„ 31 Dec.	434	258	692	344	122	30	..	496	22	1,161	3
Totals .	1,639	929	2,568	1,585	497	84	3	2,179	83	4,729	18
1839											
Quarter to 31 Mar.	465	177	642	396	82	22	2	502	29	1,084	4
„ 30 June	416	198	614	493	87	29	1	610	30	1,133	3
„ 30 Sept.	547	196	743	570	82	24	2	678	24	1,205	..
„ 31 Dec.	481	233	714	532	73	17	..	622	32	1,548	4
Totals .	1,909	804	2,713	1,991	324	92	5	2,412	115	4,970	11
1840											
Quarter to 31 Mar.	507	248	755	535	91	8	1	635	37	1,622	5
„ 30 June	388	227	615	502	118	11	..	631	27	1,537	3
„ 30 Sept.	422	233	657	516	121	10	..	647	37	1,961	7
„ 31 Dec.	423	339	762	597	148	11	1	757	44	2,316	1
Totals .	1,740	1,047	2,787	2,150	478	40	2	2,670	145	7,436	16
1841											
Quarter to 31 Mar.	555	442	997	667	154	14	2	837	53	2,769	11
„ 30 June	378	268	646	411	97	11	..	509	40	1,832	10
„ 30 Sept.	318	228	546	446	82	7	2	537	38	2,386	11
„ 31 Dec.	458	176	634	365	66	..	..	431	52	2,864	8
Totals .	1,709	1,114	2,823	1,889	399	32	4	2,314	183	9,851	40
1842											
Quarter to 31 Mar.	493	223	716	373	85	..	..	458	70	3,416	9
„ 30 June	298	253	551	415	82	..	..	497	54	2,657	17
„ 30 Sept.	277	230	507	354	89	..	..	443	47	2,799	..
„ 31 Dec.	376	204	580	379	84	..	..	463	43	2,573	8
Totals .	1,444	910	2,354	1,521	340	..	..	1,861	214	11,445	34
1843											
Quarter to 31 Mar.	528	212	740	457	78	..	4	539	59	2,506	3
„ 30 June	484	191	675	438	92	16	3	549	47	2,153	11
„ 30 Sept.	553	185	738	417	83	25	1	526	39	2,253	8
„ 31 Dec.	588	237	825	478	92	12	2	584	45	1,929	12
Totals .	2,153	825	2,978	1,790	345	53	10	2,198	190	8,841	34
1844											
Quarter to 31 Mar.	629	318	947	647	100	12	2	761	50	2,261	15
„ 31 June	427	241	668	330	127	16	1	474	41	..	16
Totals .	1,056	559	1,615	977	227	28	3	1,235	91	..	31

according to a Plan adopted at the recommendation of the Author, and giving the or otherwise; the Deaths, whether under Physicians or Surgeons, the Average Medical or Surgical; and other particulars.

	Admissions.		Discharges.		Deaths.		Average No. in the House.		Average Stay.	
	Physicians.	Surgeons.	Physicians.	Surgeons.	Physicians.	Surgeons.	Physicians.	Surgeons.	Physicians.	Surgeons.
1837										
Oct. 1 to Dec. 31.	331	242	273	197	72	4	79	105	25	62
1838										
Quarter to 31 Mar.	411	248	296	234	117	4	112	145	27	40
„ 30 June	355	222	337	263	82	8	89	133	25	50
„ 30 Sept.	391	229	322	236	65	5	77	96	21	40
„ 31 Dec.	426	266	293	203	63	16	103	124	22	37
Totals.	1,603	965	1,248	936	327	33	95	124½	23¾	41¾
1839										
Quarter to 31 Mar.	362	230	297	215	82	12	118	157	25½	38¼
„ 30 June	356	258	339	271	73	13	109	152	27¼	43
„ 30 Sept.	425	318	399	279	70	8	121	159	20¾	32½
„ 31 Dec.	415	299	359	327	57	7	103¼	86½	24½	26½
Totals.	1,558	1,155	1,384	1,092	282	40	113¾	138½	24	34¾
1840										
Quarter to 31 Mar.	377	378	365	355	76	10	122	98	27½	22¾
„ 30 June	271	344	248	383	66	4	91	113	31¼	24¾
„ 30 Sept.	326	312	259	388	53	15	102	137	29½	27
„ 31 Dec.	418	343	332	425	87	8	113	141	28½	30½
Totals.	1,392	1,377	1,204	1,551	282	37	107	122¼	29¾	25¾
1841										
Quarter to 31 Mar.	496	501	329	508	123	11	121	152	26¼	31½=31.5
„ 30 June	304	342	219	300	79	7	108	117	22½	26
„ 30 Sept.	267	379	237	290	47	8	89	91	19¼	24½=24.5
„ 31 Dec.	413	329	286	224	94	13	94	100	21	22½=22.5
Totals.	1,480	1,451	1,071	1,322	343	39	103	115	22	26
1842										
Quarter to 31 Mar.	265	254	313	248	95	18	119	99	20½	31½=31.5
„ 30 June	296	255	255	242	69	8	105	84	26¼	28½=28.5
„ 30 Sept.	291	233	225	218	50	9	84	84	24½	34
„ 31 Dec.	333	247	219	244	76	10	99	92	28¾	29¼=29.25
Totals.	1,185	989	1,012	952	290	45	101¾	89¾	23½	30¾=30.75
1843										
Quarter to 31 Mar.	456	266	328	223	110	16	112	101	24	29½=29.5
„ 30 June	373	250	311	262	73	11	103	83	24¼	34
„ 30 Sept.	302	319	283	294	70	10	87	104	29¾	26
„ 31 Dec.	366	338	250	332	81	6	108	118	29½	27¼
Totals.	1,497	1,173	1,172	1,111	334	43	102½	101½	26¾	26.8
1844										
Quarter to 31 Mar.	469	242	348	206	75	8	134	101	26¼	33½
„ 31 June	315	310	245	163	77	11	119	132	31½	30
Totals.	814	552	593	369	152	19	126.5	116.5	29	31.75

From the table given on the two foregoing pages, I subjoin the admissions and deaths for the quarters respectively of the 6 $\frac{3}{4}$ years ending with June 1844:—

	Both Sexes,—all Ages.		
	Admissions.	Deaths.	Ratio.
Seven First Quarters . . .	5,455	757	13·8
Seven Second Quarters . . .	4,676	581	12·4
Six Third Quarters . . .	3,801	410	10·8
Seven Fourth Quarters . . .	4,800	594	12·3

According to this table the largest admission and mortality were both in the first or January quarters, and the least admission and mortality were both in the third or July quarters. The other two groups of quarters, viz., the second and fourth, had almost the same rates of mortality, viz., 12·4 and 12·3 per cent. The principal difference between this table and the preceding is a higher rate of mortality in every quarter of this latter table. In each we observe the highest and lowest rates fall on the same quarters, viz., the first quarters highest and the third quarters lowest. In each the second quarters stand next to the first in mortality, and the fourth quarters between the second and fourth.

Some years since, my brother, George Clendinning, B.M. (now withdrawn from the profession) made an analysis of the old journals of the infirmary for 14 years ending in 1835, in aid of inquiries I had then on foot, and obtained results which appear to differ from the preceding. The following table shows the contrasted results. The sum total of deaths from all causes was in the 14 years 3756; and in the 6 $\frac{3}{4}$ years (adding $\frac{1}{4}$ th to the third quarter's deaths), the total loss by deaths was 2410:—

	G. C.	J. C.
	Mortality to whole Mortality.	Mortality to whole Mortality.
First Quarters . . .	28·6 per cent.	31· per cent.
Second Quarters . . .	20·6 ,,	24·1 ,,
Third Quarters . . .	20·7 ,,	19·8 ,,
Fourth Quarters . . .	30 ,,	21·6 ,,

Sufficient reason, however, for this difference exists to explain it without impugning either the calculations of my brother or myself. It is this: we divided the year differently. He took the natural groups of months constituting seasons, beginning with March, April, and May as the spring quarter, and so of the rest of the year; whereas I took the civil year, beginning, of course, with January as the first month of the first quarter. My results analysed on my brother's plan would give (on a total mortality something above 3400) 23·4 for spring, 21·2 for summer, 22·2 for autumn, and 32·8 for winter, per centages of mortality.

From this same table* it appears that in the 6 $\frac{3}{4}$ years there were admitted under the physicians, exclusively of the physician accoucheur, 9880 patients, and under the surgeons 7904, together = 17,784, or 2634 annually of both classes; and that the admissions from the W. H. (workhouse)

* See Table XI. pp. 304 and 305.

were 12,001, and those from O. D. (their own homes) were 6430; together = 18,431. It will be observed that the total of admissions under the physicians and surgeons falls short of those from W. H. and O. D. together by between 600 and 700 (658). This difference represents principally "casuals" or cases officially admitted to the W. H., but placed in the first instance for a time in the sick-house or infirmary under observation. Such are usually not entered in the common way as patients unless found to labour under some complaint, but are commonly transmitted to the other side in a day or two after admission. On the 6 $\frac{3}{4}$ years the admissions under the physicians were nearly 57 per cent., and those under the surgeons 43 per cent., of the whole regular admissions. The cures on both classes (physicians' and surgeons' patients) together were nearly 66 per cent. on the admissions, and 80 per cent. on the discharges of all sorts, exclusively of deaths.

The relieved or incurable (which, by the bye, ought not to be thus confounded) were, on both classes of patients, nearly 15 per cent. (14·6 on the admissions, and 17·5 on the discharges,) exclusively of deaths.

The discharges "by desire, uncured" were about 1·8 per cent. on the admissions; the irregular were something less than $\frac{1}{4}$ th per cent. The puerperal cases (which are not included in any of the totals above given) were about 150 per annum; they amount at present to 200 per annum. The puerperals (or lying-in cases) were until lately received on the W. H. side, and counted, therefore, O.D. cases: the mode of recording them formerly in use still continues, and they are not above included in the admissions under the physicians.

A presumable and increasing disproportion between the domestic accommodations of the parochial establishment and the general parochial population has been already adverted to, and the apparent increase of mortality in the wards of the infirmary has been conjecturally referred in part to that circumstance, and the necessity thence arising for narrowing the way into the infirmary and exercising a less indulgent superintendence and control as regards the granting of "doctor's orders" (*i. e.* the overseers' orders to the resident medical officers to examine applicants for medical relief, whether at their homes or at the infirmary), and a less lenient system of admission into the sick-house or infirmary. With a view to test the accuracy of that supposition, I have calculated the proportion of the admissions coming from the W. H. and O. D. (their own homes) respectively; and the following table gives the result so far as materials exist and are at my disposal:—

	Admissions per Cent.		Difference.
	From O. D. (or their homes.)	From W. H.	
1837, last 3 Months . . .	40 nearly.	59·3	+19·3
1838 ,, ,, .	36·	63·8	+27·8
1839 ,, ,, .	30·	70·7	+40·7
1840 ,, ,, .	37·5	62·4	+24·9
1841 ,, ,, .	45·	54·7	+ 9·7
1842 ,, ,, .	39·	61·2	+22·2
1843 ,, ,, .	28·	72·	+44·
1844, first 6 Months . . .	31·6	65·4	+30·8

According to this table, the proportion between the admissions into the sick-house from the W. H. and from O. D. (their own homes) has been nearly stationary. If we take the eight terms of the table in the fourth column (differences), and divide them into two sets of four each, we shall find the upper four terms of difference amounting to 112·7, and the lower four terms to 106·7, being not far from equality. The domestic accommodations of the W. H. have not been stationary, yet their enlargement has been inadequate, amounting to some 150 beds only, I think. The site of the W. H. is the property of the Duke of Portland, held on lease terminating some 30 years hence; which circumstance naturally creates an unwillingness to undertake a large outlay for new buildings.

Mortality.

The mortality in the 6½ years on the admissions into the physicians' wards amounted to 21 per cent., and that occurring in the surgical wards to 3·1 per cent.; the mortality on both to 12 per cent. The mortality of those London hospitals which admit the general run of diseases, and therefore, most nearly correspond in their practical working with the infirmary, which admits all sorts without any other exception than small-pox, is well known to vary little from 10 per cent. The annual loss of life in the wards of the Middlesex, North London, St. George's, Westminster, and London Hospitals, amounts usually to between 9 and 11 per cent. St. Bartholomew's and St. Thomas's, which receive a large per centage of venereal cases, yield a smaller gross mortality; St. Bartholomew's, for example, contains in its foul wards some 150 beds. Now the mortality in those wards must fall short of 1 per cent., since the mortality of the Lock Hospital is usually under that proportion: the gross mortality of that noble institution must, consequently, be very materially lightened by the admission of, perhaps, 1000 or 1200 venereals annually; and this is, I think, confirmed by the fact (if I am rightly informed) that the mortality of St. Bartholomew's, if we exclude the foul wards, does not differ in any material degree from those of other hospitals.

But the chief reason of the relatively high mortality of the infirmary is the admission into its wards, indifferently, of all cases of pauper sickness, whatever may be the ages between birth and decrepitude—whatever be the stages in point of advancement, or the durations in months or years, or the nature and ulterior prospects (excepting only small-pox)—provided the applicant has a legal or apparent claim for parochial medical relief. It is not necessary to dwell on the invariably high relative mortality amongst nurslings and persons of extreme age under disease. But with respect to chronic organic diseases, which are *de jure* and *de facto* received as readily as any other cases into the infirmary, I shall stop for a moment to observe that 20 to 30 per cent. of our whole mortality is attributable to tubercular disease of the lungs, against the admission of which, as such, the doors of general hospitals are nearly closed according to rule, and, practically speaking, may be said to be held ajar, to be opened for their admission or gently closed in their faces, according to the exigencies or humour of the hour. The admissions of pulmonary tubercular disease mostly in advanced stages, and as such, into the infirmary, were in 1840 = 121 cases, and in 1842 = 129 cases. (I have not, unfortunately, the figures for any other year at hand, but as regards

such cases those were ordinary years.) Of these 94 died each year, leaving only some 30, who were sufficiently improved to be able to return to their occupations, or, as happened in a few instances, who preferred to retire from the infirmary in order to die at home in the bosoms of their families.

An additional circumstance contributing to our superior mortality is the retention of patients, if wishing to stay, until complete recovery, or death. Without assuming anything as between rate-payers and rate-receivers, I may say that, in point of fact, the man that is sick and poor and in possession of parochial rights does usually obtain admission into the infirmary, if he seek it, and that once admitted he usually remains there, if willing, until recovered or sufficiently relieved, or beyond human pain or help. The influence of this indefinite duration of treatment in the infirmary over the per centage of mortality need not be insisted on.

The surgical mortality of the infirmary, it has been stated, is somewhat less than half that of the surgical wards of our general hospitals, viz., between 3 and 4 per cent. instead of some 10 per cent. The reason is twofold:—1. Accidents are, in point of fact, comparatively, rarely received in the infirmary; and, exclusively of accidents, surgical practice always yields a much lighter amount of deaths than medical practice. Now accidents are a peculiarly favoured class of cases in our hospitals, and are provided for with an extra facility of admission into their wards, which is beneficial to all parties, but is not extended to other, often graver though less striking affections. Owing, then, to the high mortality of the class "accidents" amongst surgical complaints, the surgical mortality in our hospitals is comparatively much augmented, while on the contrary the surgical mortality of the Infirmary is relatively much lowered by the scanty admission of such cases. To this if we further add that about one-half of the patients admitted on the surgeons' side consists of persons (mostly children from the W. H. schools) suffering from chronic cutaneous affections, yielding no mortality of their own, viz., porrigo, psora, impetigo, lepra, &c., the account of our surgical mortality will stand thus;—viz. on one-half of the surgeons' cases there is, usually and properly speaking, no mortality; on the other half of their admissions the amount of deaths must be about 6 per cent.

Number of Patients and Duration of Treatment.

There remain but two topics for remark, viz., the average number under treatment and the average stay. From the table so often referred to (No. XI.), it appears that the average number of physicians' patients under treatment during the 6½ years was 103·5, and the average of surgeons' patients 114; the number varied little during the period. If we add together the four upper terms (1837, 38, 39, and 40), and in like manner add together the four lower terms (1841, 42, 43, and 44), and divide each by 4, we find the daily averages as follows: for the former 3½ years, physicians' 98·6, surgeons' 122·5; for the latter 3½ years, physicians' 108·3, surgeons' 105·5. The physicians' daily patients, however, rose in the latter years about 10 per cent., and the surgeons' daily patients declined about 15 per cent. in the same period.

It appears from this table that the average stay (in the house or under treatment) varied little during the 6½ years on the physicians' side, and was for the whole 6½ years = 25·5 days; but that the average stay on the surgeons' has been reduced nearly 30 per cent., viz., from 41·6 days,

which is the average of the former four terms (1837, 38, 39, and 40), to 29.3 days, which is the average for the latter four terms (1841, 42, 43, and 44).

Summary.

It appears from the columns of the 11th table, taken in connexion with each other:—1. That during the $6\frac{3}{4}$ years which it covers, there passed through the Infirmary every month nearly 220 (219.5) patients;—2. That of these about 140 (after deduction for "casuals") were from the W. H. (workhouse), and 79 from O. D. (their own homes);—3. That 127 of them were admitted under the physicians (exclusively of the puerperals), and about 92 under the surgeons;—4. That 144 of them eventuated in cures, 26 of them in deaths, and the remainder proved incurables, or voluntary retirements, or "irregulars."—5. It appears further, from Table III. (page 296), that of those 219.5 about 96 were males and about 122 probably females;—6. And that about 16 were under 5 years of age, 86 under 15 years of age, and 34 over 60 years of age.—7. It appears also that about 11 were cases of pulmonary tubercular disease, and nearly 8 were discharges from the vesianal wards.*

On the Relative Liability of the Two Sexes to Insanity. By JOHN THURNAM, M.D.

[Read before the Statistical Section of the British Association at York, September 28th, 1844.]

THE opinion which appears to have recently obtained, that insanity is more prevalent amongst women than amongst men, has, I believe, originated in an erroneous method of statistical analysis. Dr. Esquirol, who appears to have inclined to this view, was at great pains in collecting information as to the proportion of *existing* cases of insanity in the two sexes in nearly every country of the civilized world; and, having found that, taking the average of different countries, the proportions were those of 37 males to 38 females, he concluded that his inquiry refuted the opinion which has prevailed since the time of Cælius Aurelianus,† that women are a little less subject to insanity than men.‡ In this view Esquirol is followed by Drs. Copland, Brown, and Millingen; and indeed, by every recent writer on insanity. It is, however, well known that, in all European countries, the proportion of adult females in the general population exceeds that of males. In England and Wales, according to the census of 1821, there was an excess, at all ages above 15 or 20 years, of about 4 per cent.; and, according to the more accurate census of 1841, an excess of 4 per cent. at all ages, and of about eight per cent. at all ages above 15 or 20 years. Of this general law, Esquirol was aware; but he does not appear to have known that, from 20 to 50 years of age, when, in this country at least, insanity chiefly occurs for the first time, there is a still greater excess of females; an excess which is higher from 20 to 30 years of age than it is subsequently; it being 12 per cent. from 20 to 30, 6 per cent. from 30 to 40, and 4 per cent. from 40 to 50, years of age. Thus, assuming

* For some years the expences of the sick-house (so far as they can be distinguished from those of the workhouse generally) have amounted to about 5s. weekly per patient, all ages and both sexes included.

† Cælius Aurelianus, "De Morbis Acutis et Chronicis," Amstel. 1709, 4to., pp. 326, 339.

‡ Prichard, "On Insanity," 1835, p. 162. Esquirol, "Maladies Mentales," 1838, tome i., p. 37; ii., p. 676.

only a like liability of the two sexes to insanity, we should expect to find a much greater number of cases amongst women, and one corresponding to this excess of the same sex in the general population, at those ages when insanity chiefly occurs.

The only two institutions, however, that I am acquainted with in this country in which there has been any material excess of females admitted during extended periods are the hospitals of Bethlem and St. Luke; and in these there has been, at different and extended periods, an excess of women admitted amounting to 20, 30, and even 45 per cent. This, however, may depend on local circumstances peculiar to the metropolis; and, consequently, does not in any degree establish Dr. Haslam's opinion, that, "in our own climate, women are more frequently afflicted with insanity than men;" a statement which has been recently repeated by Dr. Webster in his remarks "on the Statistics of Bethlem Hospital."* That there may be something peculiar in the circumstances of the metropolis in connection with the prevalence of insanity in the two sexes, at least as regards the poorer and more dependent classes of the community, is a view which is confirmed by there having been a slight excess of females admitted both at Hanwell and in the licensed metropolitan asylums for paupers; though it is to be observed that, during the last five years, the excess at Hanwell, never very great, has been gradually diminishing, and up to 1843, only amounted to 2 per cent. According to the census of 1841, there appears to be a larger proportion of females living in the metropolis from 20 to 50 years of age, as compared with the kingdom generally; but whether the difference be large enough to account for the greater number of women admitted into the metropolitan asylums and hospitals is, perhaps, doubtful. The excess per cent., at these ages, of women over men appears to be in the proportion of 18 in the metropolis to 8 in the country; that is to say, there were, in 1841, living in England and Wales 100 men to 108 women, and in the metropolis 100 men to 118 women, at from 20 to 50 years of age. At all ages there appears to be a greater proportion of females in the metropolis than in England and Wales; there having been an excess of 13 per cent. at all ages, and of 19 per cent. at all ages above 20. Whatever may be the cause of the difference in the relative proportions of the two sexes admitted into metropolitan asylums, it does not appear to extend to the middle and upper classes of society; for in the licensed metropolitan asylums for private patients, (1833—40), there has been an excess on the side of males admitted amounting to 38 per cent.

But there is another fallacy in Esquirol's method of investigating this subject, in consequence of his having compared with each other the *existing*, instead of the *occurring*, cases of insanity in the two sexes. Were the progress of insanity the same in men as in women, and our object simply that of determining the relative liability of the two sexes to insanity, the comparison of the cases existing at one time, would serve as well as that of the numbers occurring during any given period. This, however, is not the case; for, as I have elsewhere shown, the mortality of insane men, on an average, exceeds that of insane women in the public asylums of this kingdom by 50 per cent. Thus we find that the excess in the mortality of males above females is, at the Retreat, at the rate of

* Haslam, "Observations on Madness," 2nd edition, 1809, p. 245. Webster, in "Medico-Chirurgical Transactions," vol. xxvi., 1843, p. 380.

37 per cent., in the metropolitan licensed asylums of 63 per cent., at Bethlem of 71 per cent., at Hanwell of 80 per cent., and at the York Asylum of 93 per cent.; the mortality in males being nearly double what it is in females. As the mortality of males in the general population is not more than 7 or 8 per cent. higher than that of females,* it will be evident that, out of equal numbers attacked, the existing cases of insanity in women will accumulate much faster than those in men; and that they will necessarily be much more numerous, as compared with the *occurring* cases, than will the existing cases in the latter sex. According to the "Report of the Metropolitan Commissioners in Lunacy," there were, in asylums of all descriptions in England and Wales, on the 1st of January, 1844—

Insane Persons.	Males.	Females.
11,272	5,521	5,751; of whom there were
7,482 paupers.	3,532	3,950†

—being an excess on the side of females, of *existing* cases of insanity, of 4 per cent. in all classes, and of nearly 12 per cent. in paupers.

It may, perhaps, be objected to the results of any inquiry into the liability of the two sexes to insanity which is founded on the proportions of males and females admitted into public and private asylums, that, from various causes, women are more likely to be detained at home than men. As regards the middle and higher classes I believe this to be the case; but, as respects the pauper insane, I do not think that such a tendency can affect the results in any material degree. Women are, indeed, sooner rendered entirely dependent, as a consequence of mental disorder, than men; and I should conclude that any greater indulgence to, and tolerance of, the eccentricities of the sex, when the subjects of insanity, will be more than compensated by the frequently greater difficulty of effecting the removal to an asylum of the insane father, husband, or brother.

In order that the comparison of the occurring cases be a strictly accurate one, the proportions of the two sexes, at the several ages, *attacked with insanity* for the first time, should be compared with the proportions in which the two sexes, at the same ages, *exist* in the community in which such cases occur. The nearest approximation to this method which we have the means of employing is, by assuming that the proportions of men and women *admitted* into public institutions during extensive periods represent, as on the whole they probably do represent, the cases which *occur* for the first time. The following table is calculated on this principle. (See p. 313.)

On an examination of this table we ascertain that, in 24 of the 32 asylums which it comprises, there has been a decided excess of men in the numbers admitted. In many British asylums the excess amounts to 25, 30, and even 40 per cent.; and in the whole number of 32 asylums there is an average excess on the side of the male sex of 13·7 per cent. In the 9 English county asylums, contained in the table, the excess amounts to 12 per cent. Dorset is the only county asylum in which the proportion of women admitted has materially exceeded that of men.

* The mean annual mortality of England during four years, 1833—41, was 2·31 per cent. for men, and 2·13 per cent. for women.—"Fifth Report of Registrar-General," p. xi.

† Report, 1844, p. 184.

Table shewing the Numbers and Proportion of each Sex, out of 71,800 Cases, admitted into various Asylums.

Name of Asylum and Period.	Numbers of each Sex Admitted.		Proportions per Cent. of each Sex.		Excess per Cent. of one Sex over the other.	
	Male.	Female.	Male.	Female.	Male.	Female.
1. Bloomingdale New York . . . } (20½ years, 1821-42)	1,692	906	65	35	86	.
2. Siegburg (9 years, 1825-33) . . .	404	226	64	36	78	.
3. Dunsfries (4 years, 1839-43) . . .	147	92	61·5	38·5	59	.
4. Charenton (11 years, 1815-25)* . . .	1,245	804	61	39	54	.
" (8 years, 1826-33) . . .	932	625	60	40	49	.
5. Schleswig (15 years, 1820-35) . . .	342	224	60	40	52	.
6. Licensed Metropolitan Asylums, } not paupers, (1833-40) . . .	1,419	1,028	58	42	33	.
7. Perth (11 years, 1827-38) . . .	190	141	57·5	42·5	34	.
8. Cornwall (22 years, 1820-42) . . .	407	310	57	43	31	.
9. Nottingham (31½ years, 1812-43) . . .	937	726	56·3	43·7	29	.
10. Armagh (16½ years, 1825-41) . . .	649	505	56	44	28	.
11. Clonmel (7 years, 1835-42) . . .	206	162	56	44	27	.
12. York Asylum (25½ years, 1814-40) . . .	768	607	56	44	26	.
13. Lancaster (26 years, 1816-42) . . .	2,042	1,599	56	44	27	.
14. Maidstone (5 years, 1833-38) . . .	195	158	55	45	23	.
15. Glasgow (28 years, 1814-42) . . .	1,456	1,191	55	45	22	.
16. Richmond, Dublin . . . } (5 years, 1832-39)	331	277	54·5	45·5	19	.
17. Lincoln (21½ years, 1820-42) . . .	467	391	54·5	45·5	19	.
18. Dundee (22 years, 1820-42) . . .	496	427	53·7	46·3	16	.
19. Gloucester (20 years, 1823-42) . . .	661	588	53	47	12	.
20. Frankford, U.S. Society of Friends } (25 years, 1817-42)	405	379	52	48	7	.
21. Worcester, U.S., (10 years, 1833-42)	806	751	51·8	48·2	7	.
22. Hartford, U.S., (19 years, 1824-43)	640	607	51·3	48·7	5	.
23. Wakefield (23½ years, 1818-42) . . .	1,527	1,479	51	49	3	.
24. Belfast (13 years, 1829-42) . . .	621	622	50	50	.	·16
25. Woodbridge, (13 years, 1829-42) . . .	499	500	50	50	.	·20
26. Carlow (10 years, 1832-42) . . .	247	250	49·7	50·3	.	1·2
27. Hanwell (11½ years, 1831-42) . . .	1,189	1,219	49·3	50·7	.	3
28. Cork (13 years, 1827-39) . . .	954	1,009	49	51	.	5
29. Licensed Metropolitan Asylums } paupers† (6 years, 1833-40) . . .	1,479	1,520	48	52	.	7
30. York Retreat, Society of Friends, } (44 years, 1796-40)	282	333	45·8	54·2	.	18
31. Dorset (11½ years, 1832-43) . . .	184	224	45	55	.	21
32. Bethlem, curables‡ } (20 years, 1823-42)	1,782	2,622	40·5	59·5	.	47
Total of the above (1796-1843).	25,601	22,502	53·2	46·8	13·7	.
	48,103					
9 English County Asylums; 8, 9, } 13, 14, 19, 23, 25, 27, and 31 . . .	7,641	6,803	53	47	12	.
33. Bethlem, all cases . . . } (46 years, 1748-94)	4,042	4,832	45·5	54·5	.	19
34. St. Luke's, curables . . . } (82 years, 1752-1834)	6,037	8,786	40·7	59·3	.	45·5

For other Metropolitan Asylums, see also 6, 27, 29, and 32.

* Esquirol, "des Maladies Mentales," tome ii., p. 663 and 668.

† Haslam, "Observations on Madness," second edition, 1809, p. 245.

‡ Webster, "Medico-Chirurgical Transactions," vol. xxvi. 1843, p. 381.

Whether in this asylum an unusually large provision has been made for females, and consequently a larger proportion of applications for the admission of men have been rejected, or whether in the county of Dorset any peculiar causes are actually in operation which are capable of explaining such an exception to a general law, I am at present unable to determine.

Having thus shewn that, in the principal hospitals for the insane in these kingdoms, the proportions of men admitted is nearly always higher, and in many cases much higher, than that of women; and as we know that the proportion of men in the general population, particularly at those ages when insanity most usually occurs, is decidedly less than that of women, we can have no grounds for doubting that men are actually more liable to disorders of the mind than women.

It is always satisfactory when those reasonable conclusions, which we have previously formed from general considerations of the nature and tendencies of the particular causes which are in operation in any class of facts, are confirmed by accurate statistical inquiry. From a just consideration of the differences in the physical and moral constitution, as well as in the generally prevailing external circumstances of the two sexes in civilized communities at the present day, it was, I think, *à priori*, highly probable that men should possess a somewhat greater liability to mental disorders than women; and this was a conclusion at which, independently of any statistical inquiry, the ancient physicians had even arrived. And it is thus important to observe, that it was by a *faulty application of the methods of statistical analysis* to this question, by the deservedly distinguished Esquirol, that a contrary conclusion was come to by that diligent, but, in statistical questions, not always accurate, inquirer; and that it has been chiefly on his authority, and on that of authors who, on this subject, have copied from him, that we have been in danger of admitting the erroneous doctrine that women are more liable to insanity than men.

It is still highly probable that different countries,* and perhaps even the same country at different periods, as well as different communities and different ranks and classes in the same country, may vary very much as regards the proportion in which men suffer from insanity more than women. Thus, it appears tolerably well ascertained that a larger proportion of women, relatively to the other sex, become insane in France as compared with England. Though, as we have seen, this is less certain as respects the metropolis when compared with the rest of this country. In this respect, we have seen that the statistics of our own metropolis appear to resemble those of France, rather than those of the rest of England.

In this point of view, the experience of the Society of Friends is not without considerable interest. At first sight it might appear that, in this community, women are actually more liable to insanity than men; for, without any greater facility existing for the admission of females, the number of women, members of that society, who have been

* The above table shews that, during 15 years at the asylum at Schleswig, Holstein, the proportion of men admitted exceeded that of women by 52 per cent.; and at Siegburg, near Bonn, on the Rhine, during 9 years, by 78 per cent. According to the official return of Dr. Holst, the existing number of the insane throughout Norway, in the year 1825, was in the proportion of 1 to 508½ of the male, and 1 to 597½ of the female population.

admitted into the Retreat has exceeded that of men by 18 per cent., or, in other words, only 45 men have been admitted to 55 women.* But it is requisite to know the relative proportions of the two sexes in the Society of Friends, as a body, before we shall be justified in determining that insanity is really more prevalent amongst the females of that community. By returns, however, from all parts (each "monthly meeting") of England and Wales, it appears that in the Society of Friends the excess of women over men, at all ages, amounts to about 20 per cent.; and there can be little or no question that the excess of *adult* females is still greater.† Indeed, after 15 years of age, before which insanity seldom occurs, we can, I think, scarcely estimate the excess of females over males in this community at less than from 30 to 35 per cent. And thus assuming, as there is every reason for doing, that, as respects the proportions of the two sexes attacked, the experience of the Retreat represents that of the Society at large, it will appear that, in this community, there are still from 10 to 14 per cent. more men than women attacked with mental derangement. This is an excess on the side of men, considerably less probably than that which prevails in the kingdom generally. The progressive accumulation of females in an hospital for the insane is well illustrated by the experience of the Retreat; where, at the end of 45 years, the women exceeded the men by 30 per cent.; and where the average number of women resident during the whole period was 35 per cent. higher than that of men. At the asylum for the Society of Friends at Frankford, Pennsylvania,‡ (1817—42,) the proportion of men admitted exceeded that of women by 7 per cent. But in the general population of Pennsylvania and the adjacent states, in common more or less with nearly all newly-settled countries, the proportion of males exceeds that of females by about 4 per cent., and, at from 20 to 40 years of age, by 6 per cent. There, however, may be, and probably is, less difference in this respect in the Society of Friends in the states alluded to, or the women may even preponderate in this community.

In nearly all points of view it may, in conclusion, be stated, that women have an advantage over men in reference to insanity; for not only do they appear to be somewhat less liable to mental derangement than men, but, when they become the subjects of it, the probability of their recovery is on the whole greater, and that of death very considerably less. After recovery from a first attack, however, the probability of a relapse, or of a second attack, is perhaps somewhat greater in women than in men. Still the more favourable results, as regards the

* The numbers in the table refer to cases of all descriptions admitted at the Retreat; but the proportions are the same when members of the Society of Friends are separately considered.

† This larger number of women in the Society of Friends may, no doubt, be chiefly attributed to the larger proportions of men who emigrate, and leave the Society, and are disunited from it, for, on an examination of the registers of the Society from 1800 to 1837, I find that the births registered were in the proportion of 105·7 males to 100 females; viz. 8207 boys and 7759 girls. In the whole of England and Wales, in three years, 1838—1841, the births registered were in the proportion of 104·8 boys to 100 girls.—"Fourth Report of the Registrar-General," 1842, pp. 9, 10.

‡ This asylum is more particularly appropriated to the Society of Friends in the states of Pennsylvania, New Jersey, and Delaware; but patients from other states are also admitted.

female sex in all these particulars, appears to be much less marked at the Retreat than in nearly every other institution with which I am acquainted. This is worthy of notice, as it is probably due to the greater general regularity of life in the men of this community as compared with that of men in the community at large; or, at least, than in those parts of it which furnish inmates to the asylums compared.

Retreat, York, August, 1844.

Notes on the Report of the Royal Commissioners on the Operation of the Poor Laws in Scotland, 1844. By J. P. ALISON, Esq., M.D.
[Read before the Statistical Section of the British Association at York, October 1st, 1844.]

DR. ALISON stated, that as the result of many of his own observations and inquiries, and those of others who had associated themselves with him to investigate this matter statistically in Scotland, had been read in the Statistical Section of the British Association, he was anxious to lay before them some extracts from the evidence, lately printed as an Appendix to the Report of the Royal Commissioners, who had been appointed to inquire into that subject, by which he thought that those previous statements were amply confirmed; but that in laying these results before the Section, he would confine himself to facts, and as nearly as possible to statistical facts, and abstain from all discussion of remedial measures.

He said that, on one point the result of the inquiries of the Commissioners appeared at first sight to be at variance with his previous statements. viz., as to the number of poor, natives of country districts, who burden the larger towns in Scotland. It appears that, in general, about two-thirds of the regular paupers in those towns are not natives, and there is a general complaint in the towns, of this burden falling on them, in consequence of the defective relief in country districts, and of the law of settlement by three years' residence; but the Commissioners report that there had been much exaggeration in those statements, and that there are few paupers in the towns who have not lived there many years; therefore, that an extension of the term requisite for obtaining a settlement would make little difference in this respect.

On this he observed, that he had always represented the great mass of poor from the country, who resort to the towns in Scotland, as "coming originally in search of work," and afterwards becoming burdensome, not in the first instance as *paupers*, on the parish lists, but as *destitute poor*, subsisting, for the most part, on *voluntary* charity, either of individuals or associations; and had explained how greatly the number of the destitute poor in Scotland exceed the number of regular paupers; therefore, that the result of the inquiries of the Commissioners, being nearly confined to the statistics of the paupers, does not invalidate his previous assertion.

In illustration of this, he pointed out six different classes of persons, often reduced to extreme destitution in Scotland, but who do not in general appear on the lists of paupers at all, and referred to the evidence published by the Commissioners in proof of this; and of all those he asserted, that they are found chiefly in the towns, seeking either for occasional employment, or for voluntary charity. He explained, 1. The

case of the *able-bodied* unemployed poor. 2. The case of the *temporarily* disabled by sickness or injury. 3. The case of applicants for the legal relief, to whom that relief is long delayed. 4. The case of those to whom relief is refused, because the Kirk Sessions "have not funds in hand" for them. 5. The case of those whose settlement is disputed, and interim relief refused. 6. The case of the "dissipated and undeserving poor," and their children, who are "kept at bay" by the parochial authorities; in consequence of which he said he had known various instances of children dying of the effects of cold and hunger.

Having thus explained the fallacy of the statement of the Royal Commissioners on this point, he proceeded to say that on all other points the evidence taken by the Commissioners not only amply confirmed his former statement, but in several instances exceeded his anticipation; and in proof of this he read extracts from the evidence as to the following particulars; almost all of those extracts being from the evidence of clergymen, magistrates, or other public functionaries.

1. The extent of destitution in many of the towns, the privations, as to food, fuel, and clothing, endured by many of the inhabitants, and the necessity of mendicity to support life, both in the case of regular paupers, and of persons excluded, on the grounds above stated, from the legal relief; especially in the case of able-bodied persons and their families, often of good character, and reduced by circumstances quite beyond their control.

2. The extent of vagrancy, consequent especially on depressions of trade in the manufacturing districts, extending from the Borders even to the Orkney Islands, and forcing on many practical observers the conviction, that some fund should be provided for supporting the unemployed at home.

3. The diffusion of fever, particularly of that new form of fever which has sprung up since 1842, almost exclusively in Scotland, and prevailed to an unprecedented extent, which has been proved by individual inquiries, extending to above 1,700 persons, to affect that minority of the population who are destitute and unemployed, not only in a *larger proportion*, but in an *absolutely greater number* than all the rest of the community; and has very frequently been diffused through the country by the destitute vagrants just mentioned.

4. The very inadequate allowances to widows, and the frequent neglect of orphans, and the consequence, distinctly resulting from this cause, and from the absence of any legal protection to the unemployed, in the increased temptation to crime. This was stated as the general result of observations made in all the gaols in Scotland, but was especially illustrated by tables, furnished by Mr. Brebner, governor of the gaol at Glasgow, one of which comprised 258 cases of persons committed to that gaol in one year, of whom he could say with certainty, that it was want, and not inclination, which led them to commit crimes; and others gave the particulars of no less than 79 persons, 72 of them females, who in one year became *voluntary* inmates of the gaol, secluding themselves from the world, and submitting to the discipline of a prison, for the sake of the protection it afforded. Many others sought a similar protection, and could not be admitted; and it having been thought necessary to dismiss these voluntary prisoners, as unfit inmates of a gaol, more than half of them returned in a short time as criminals, the sacrifice to which

they had formerly subjected themselves in order to avoid crime, furnishing the clearest evidence, that the crimes which they subsequently committed were the effect of want, not of vicious inclination.

5. The circumstances under which recourse has lately been had to assessments, as they are thought to be inevitable, in various towns in Scotland, particularly Inverness, Stirling, Arbroath, Stranraer, and Girvan, all illustrating the general fact, that the numbers and sufferings of the destitute poor had been rapidly increasing, and their feelings of independence had given way, *before* the assessments were ordered, so that no part of the increased destitution of those places could be referred to the assessments as its cause.

6. As a contrast to this increasing misery where there have been no assessments, the "sound and comfortable state" of Berwickshire as to its poor, where assessments have been long general, and the allowances to the poor, and even aid to the able-bodied when thrown out of employment, nearly on the same footing as in England; and where there is no beggary, very little intemperance, much industry, abundance of private charity, and a population almost stationary as to number.

7. Contrasting, again, with this state of Berwickshire, the miserable condition of the poor in the greater part of the highlands and islands, where the Poor Law is a dead letter, and the proprietors, in many instances, contribute nothing to the support of the poor, where the want of all the necessaries of life is most severely felt, and a "parasitical population" has been gradually formed, engaged during the greater part of the year in no employment, and preying, not indeed on the capital, but on the industry of the country, and which must be removed or employed before any improvement can take place, but in which, nevertheless, early and improvident marriages are more complained of than in any other part of Scotland.

These last classes of facts were stated as fully and satisfactorily illustrating the propositions formerly laid down by the author, as to the effect of an adequate provision for the poor in *restraining* the increase of population, in two distinct ways, 1. By maintaining the standard of comfort among the people; and, 2. By making it the obvious and immediate interest of landed proprietors, to throw obstacles in the way of early marriages and excessive reproduction.

The Statistics of the Free City of Frankfort-on-the-Main. By
LIEUT. COLONEL W. H. SYKES, F.R.S.

[Read before the Statistical Section of the British Association at York,
September 30th, 1844.]

I AM not aware that the statistics of a German city, more particularly a free city, are before the public. Independently of the novelty of such statistics, I presume they will furnish matters for comparison with statistical facts from England, either confirmatory of apparent physical or moral laws deduced from series of facts, or exhibiting antagonist matters which may render further research necessary, both in our own and other countries; that all doubts may be removed of the quality and bearing of the data with which the legislator may propose to operate in

his benevolent attempts to improve the condition and prospects of society.

I must beg some indulgence for my paper, for I have not any pretensions to the character of a German scholar, and I have laboured under the disadvantage of completing my translations since my return to England without aid; and I may in some instances not have given the perfect sense of my text. My figured statements, however, are I hope free from this drawback, as they are derived from tabulated official or public documents, and cannot be so readily misunderstood as the involved construction of German phraseology. The historical matter, and the notices respecting the public institutions, are derived from a very well got up Manual of Frankfort, by J. H. Ludwig, published in 1843. The statistical tables of educational and literary establishments are taken from the Transactions of the Geographical and Physical Society of Frankfort. The vital statistics are from official sources; and some matters are derived from verbal communications. I should have been glad to have made my acknowledgments publicly to my German friends for their kind aid; but I am not quite satisfied that in the present state of society in Frankfort it would be acceptable to them. I therefore abstain; but they will understand that I am not the less grateful for their kind promotion of my objects.

Although the present paper will embrace the general statistics of Frankfort, yet, as my principal object is the illustration of the vital statistics of the city, I shall treat the other branches in a more cursory manner than their importance and interest would seem to authorise.

Frankfort is seated on the right bank of the Main, in an open sandy plain, about 20 miles above the junction of the Main with the Rhine. Its elevation above the sea is 317 feet only. Like other places with claims to antiquity, little is known of its early history; but it has its fable (and that of Frankfort is quite Oriental) accounting for its foundation. The Franks were in the habit of crossing the river in their excursions, but much higher up. At last they were led to the discovery of the ford near which Frankfort now stands, by observing a *white deer* pass the river: henceforward they passed the river at the same place, whence resulted the name of Frankfort, or Ford of the Franks. Whether Frankfort-on-the-Oder derived its name in a similar manner, my information does not enable me to say. It was probably a hunting seat of the Frank kings, and may have owed its gradual increase to the usual attractions of a royal residence. On the 20th of July, 794, Charlemagne held a church assembly here, and it is supposed that he had previously built St. Mary's Chapel. In the same year the suburb of Sachsenhausen, on the opposite bank of the Main, was settled by some Saxons who had accompanied the emperor; and to this day the inhabitants consider themselves as of a distinct race from the people of Frankfort. Louis the German, in 843, made Frankfort the principal city of the eastern part of his dominions; and from this period it appears to have increased, but its prosperity was most probably chiefly owing to many of the German emperors choosing to be elected and crowned here. The portraits of such as were crowned at Frankfort are painted in niches in the building called the Emperors' Hall: and it is a somewhat curious coincidence that the last vacant niche in the hall was filled up by the last German emperor, Francis II., who reigned from 1792 to

1806, when Buonaparte dissolved the German empire. The first was Konrad I., the Frank who reigned from 911 to 918. In all there are 44 portraits. The elections of the emperors took place in the open air on a particular spot; and the *armed* crowds indicated their assent by clashing (Klappern) their swords and shields against each other, or shield against shield, and sword against sword; and a spot within Frankfort, not yet wholly covered with buildings, is called the Klappfeld, or "*Clashing-field*," to this day. Frankfort has been subjected to numerous vicissitudes of capture and recapture, internal commotions, and disastrous and extensive fires; so that there are few vestiges of buildings above 150 years old. In the first quarter of the 18th century 3 fires destroyed above 1000 houses. In the first, on the 14th of January, 1711, above 500, including the Jews' quarter. That in 1719 destroyed 432 houses in 24 hours; and that in 1721 destroyed 150 in the Jews' quarter. A somewhat curious fire was that of burning the English manufactures stolen from the shops in 1810, in compliance with the Berlin decree of Napoleon. Frankfort, like some other Christian cities and states, has distinguished itself for its barbarous, and cruel, and bloody persecution of the Jews at different times. In 1240, 180 were put to death; and some time afterwards continued persecution drove the Jews to such despair, that they set fire to their dwellings, by which half the city was destroyed. In 1349, at the time of the appearance of the plague in Frankfort, in common with other cities of Germany, the Jews were accused of having poisoned the wells, and a band of fanatic monks, aided by a population they had excited, set fire to the dwellings of the Jews, and threw such of those miserable people as fell into their hands into the flames. Such of them as escaped death were *sold*, "body and goods, profit, pleasure, and service,"—for such are the terms used,—by the Emperor Charles IV. to the authorities of Frankfort for the sum of 15,000 pounds weight in farthings.* In 1417 these unhappy people were reduced to 2 families; 12 years later they consisted of 6 families: and in 1495 they amounted to 104 souls only. In 1462 they were prevented from building or dwelling near a Christian church; were confined to one narrow locality, which grew into the Juden Gasse, or Jews' Lane, which was not only closed at both ends by gates every evening, but on Sundays and festivals the inhabitants were interdicted from quitting the lane at all, and could only appear abroad at any time in a prescribed garb. In 1614, in a revolt of some of the tradespeople, the Jews were plundered on the charge of usury. The restrictions on them in subsequent times were gradually relaxed, and when the Prince Primate had the city given to him by Napoleon, he endowed the Jews with the privilege of citizens; which privilege was taken from them, when the city was again declared "*free*." This class of inhabitants now amounts to a seventh or an eighth of the population.

The buildings of Frankfort have a palatial character, that is to say, they are generally large, lofty, and imposing, being occupied in floors, or parts of floors (there being sometimes a double kitchen on each floor), as was the case in Edinburgh formerly. At Frankfort even some of the ambassadors are only tenants in common with other parties. The defects of Frankfort are, the want of foot pavement in the streets, and the town not being lighted by gas, and the defective drainage, which

* Heller is the term; the twelfth of a penny English.

renders the atmosphere of some of the princely buildings a perfect pollution; the noisome effluvia from the cesspools having an unimpeded exit into the passages and chambers, from the want of proper water-closets or traps. It boasts, however, one of the most agreeable promenades in Europe; the former ramparts, ditch, and glacis having been levelled, and the ground thus obtained, surrounding three-fourths of the city, planted with shrubs and flowers, through which there are winding walks, together with a continuous carriage drive between fine trees, from the river on the west, round the skirts of the town, to the river on the east.

Government of the City of Frankfort; its Constitution [Staatsverfassung] and Administration [Verwaltung].

Frankfort is called a free city, and great care is taken in all public lists, official documents, the city seals and stamps, that the word Frankfort be preceded by its adjective "free." In very early periods after its Frankish foundation, the tradespeople and artisans associated themselves in guilds, and made the weight of their associations be felt. Frankfort was not a dependency of any particular prince; and much of municipal matters appear to have been left to the citizens, the oldest being placed at the head of the guilds, and constituting a kind of rath or council. But it was ruled for centuries by an officer of the German emperor, called a Vogt or bailiff, and had to pay a fixed tribute. Henry VII. gave the citizens a charter in 1220. In 1254, William gave them the privilege, confirmed by later emperors, that the city should never be transferred from the protection of the empire (emperor). In 1372, Charles IV. sold the imperial bailiffship over the city to the city authorities, thus leaving the people to their own government, although burthened with a tribute, and therefore not wholly free. From 1408 until the dissolution of the German empire, no essential change took place in the numbers of the council, or forms for governing the city. Matters, however, did not always run smoothly with the governing body, for in 1612 the bulk of the citizens finding that the families of their elders had gradually monopolized all power, and were dissipating the revenues of the city in feasting and banquets, and involving it in heavy debt, combined to force the members of these families who were in the council to resign their seats. This was resisted, and a commotion ensued, headed by three tradespeople—a pastry-cook, a tailor, and a joiner—who seized the gates, captured the arsenal, and overpowered the guards. This led to an imperial commission being sent to investigate the affair, but it was only by force that order was ultimately restored in 1614. The emperor Matthias directed the landgrave of Hesse Darmstadt, and the Kurfürst (Elector) of Mayence, to effect this object. The pastry-cook (Fettmilch), and six of his colleagues were beheaded in the horse market, others were whipped and fined, and the guilds and citizens were compelled to pay to the emperor a sum of 50,000 florins as smart money. I have only adverted to this circumstance in proof, that the presumed freedom of the city was illusory—the emperor's commissions running at all times within the walls; and he exercising the right to quell by force of arms all disputes of the citizens respecting municipal government. The power of the guilds, however, was shaken by the outbreak, and some abuses were removed.

In the first half of the 18th century, the complaints of the citizens

were again loud against the council. Scrupulously following a legal course, the citizens with difficulty obtained an imperial commission to inquire into the defects of the administration. The result was the formation of the standing *Bürgerausschuss*, or citizen representation, as a check upon the council.

A better understanding between the council and the citizens, was the result of this amelioration. In the French wars, however, Napoleon Buonaparte gave Frankfort to the Prince Primate, Charles of Dalberg, who possessed it from 1806 to 1813. This prince appears to have had some liberal views, for he conferred upon the Jews the right of citizenship, a distinction which had hitherto always been denied to them. The battle of Leipsic released Germany from the dominion of the French, and the allied monarchs permitted Frankfort to resume its former self-government, which was confirmed by the congress of Vienna. Parties, however, were not fully satisfied, and after some struggles, what is now called the "Constitution," was voted by the citizens at large on the 17th and 18th of July, 1816; on the 19th of July, it was proclaimed by the senate, and on the 18th of October, the constitution was sworn to both by senate and citizens. The old princely families of Limpurg and Frauenstein lost their privilege of having a certain number of seats in the council, the Jews lost the privilege of citizenship conferred upon them by Charles of Dalberg, and were left without political rights, and with some limitation in respect to the number of marriages they might annually contract.

I now come to speak of the political constitution (*Staatsverfassung*) and administration (*Verwaltung*) of the city. The principle is professedly representative, the constituent body being composed of citizens who are Christians of any denomination, excluding Jews and others not Christians. The powers of government rest in three distinct bodies,—the Senate (*der Senat*), the representative body of the citizens (*der Ständige Bürgerausschuss*, or *Bürgervertretung*), and the legislative body (*der Gesetzgebende Körper*).

The Senate consists of 42 members, and is divided into three benches. The first comprises 14 members, and is called the *Schöffen* (oldest senators), together with four syndics learned in the law; each of these persons has a salary of 2600 florins per annum. The next bench is called the Senators, comprising 14 members, each of whom receives 2400 florins per annum. The third bench is that of the Councillors (*Rathsverwandten*), also consisting of 14, each of whom receives 1200 florins per annum. The second bench is composed of jurists and merchants, and the third has 12 members from the guilds of the handicrafts, and two from that body of citizens who do not belong to the guilds. Vacancies in the first bank are supplied from the second by seniority, and vacancies in the second and third by an election consequent upon the ballot. Members of the Senate hold office for life. Not more than four Roman Catholics, nor more than three Calvinists, are admissible into the Senate; the rest of the body consists of members of the Lutheran church. On the 1st January every year the Senate appoints two *Bürgermeister*s, a senior and junior; the first is taken from the first bench, and the younger from the second bench; both are chosen by ballot by the senators. The superior *Bürgermeister* presides over the Senate, is at the head of the armed force, and conducts the foreign relations.

The younger is at the head of the police and of all matters appertaining to the citizens and the guilds. The senior *Bürgermeister* has 600 florins allowed to him for a couple of public dinners.

The second body in the government consists of the representatives of the citizens, called the *Bürgervertretung*, numbering 60 members, under the presidency of one of the senior members, who is changed every three years. This body controls the receipts and expenditure. A committee of nine audits the accounts. The representatives are elected for life, and are not paid, with the exception of the nine auditors, who receive 900 florins per annum each. Vacancies are filled up by a committee chosen by ballot of six members of this body, and six members from the 45 or democratic members of the legislative body, which committee chooses the citizens to fill up the vacancies.

The Legislative body (*der Gesetzgebende Körper*) forms the third portion of the government. It consists of 85 members; 20 of them belong to the Senate, 20 to the Representative body; and the remaining 45 are composed of the Christian citizens of all denominations, taken from the Electoral College, called the 75, which is elected annually from three classes of the community—the first of which comprises the nobles, learned men, the public servants, and those not belonging to the guilds; the second class comprises the merchants and traders; and the third the operatives. The eight dependent villages of the city have also a right to send 11 deputies to this body when matters are to be discussed relating to their interests. The Legislative body has a president, two vice-presidents, and four secretaries. Besides law-making, this body grants taxes and looks to their collection; fixes the military defence; approves state contracts; arranges the budget; and, above all, supervises the economy of the state. The members of the Legislative body are not paid.

The courts for the administration of criminal and civil justice are as follow:—

1. The Supreme Court of Appeal (*Das Ober-Appellationsgericht*) is formed by delegates from the Senates of the four free cities of Lubeck, Bremen, Hamburg, and Frankfort. Its seat is in Lubeck. Frankfort and Lubeck each send one delegate, and Hamburg and Bremen two each. The presidentship changes yearly.

2. The Appellate and Criminal Court (*Das Appellations-und Criminalgericht*) takes cognizance of civil matters above the value of 300 florins, appealed from the lower courts, and considers appeals in penal cases. It consists of the four syndics of the Senate, together with two senators, and their president is elected for three years.

3. The City Court (*Das Stadtgericht*) has the initiatory process in civil matters above the value of 300 florins. It has cognizance, also, of matrimonial affairs, trusts, &c. It acts, also, as an appellate court from the Town and Country Offices. It is presided over by a director, vice-director, and by four councillors. There is a separate city commission for summary decisions relating to freights, exchange, and other mercantile matters.

4. The Guardian and Register Office (*Das Curatel-Amt*). This office takes cognizance of guardianships, trusts, &c. Two senior senators and one of the third bank administer the duties.

5. The Police Court (Das Polizeigericht) has the usual powers of such an office in the city and its dependencies. It is under the presidency of the junior burgomaster, with whom is associated one judicial senator, two judicial assessors, and two actuaries.

6. The Criminal Examination Office (Das peinliche Verhör Amt) is conducted by a counsellor of criminal law and a judicial actuary. In weighty criminal inquiries the younger burgomaster presides in this office.

7. The City Justice Office (Das Stadt Justiz Amt) is the initiatory court for all civil processes, the amount of which does exceed 300 florins. It is divided into three sections, and the duties are administered by two town bailiffs, one town assessor, and three judicial actuaries.

8. The Land Justice Office (Das Land-Justiz-Amt) is for the territorial dependencies in matters not exceeding the value of 300 florins, and decides when a voluntary jurisdiction is given in contracts, hypothecation, guardianships, partition of property, &c. The officers employed are a bailiff and two clerks.

9. Office for Mortgages and matters relating to Fixed Property (Die Hypotheken-Transscriptions und Währschafts-Behörde). This office has jurisdiction only respecting immovables. The business is conducted by a mortgage book-keeper and his assistant, under the guidance of the City Court directors.

10. The Fiscalat is the City Exchequer, and has cognizance of many matters.—proposals of guardianship, signing and sealing of obligations, permission to bury, the control of public auctions, &c., &c. A fiscal and judicial lawyer manage the office.

11. The Military Levy Commission (Die Aushebungs-Commission) consists of two senators, two deputies of the Commons' chamber, and one officer of the line, aided by two physicians to determine the capabilities of those called upon to serve. This Commission has the organization of the military levies when called into actual service. About 5000 men are upon the rolls.

12. The Building Office (Das Bau-Amt) regulates buildings, and to its duties are added those of the departments of lighting, supply of water, and inspection of conduits, city promenades and gardens, pavements, and Fire Engine Institution. This office is directed by three senators, and one deputy of the Commons.

13. The Censors' Office (Die Bücherinspection) is under three senators.

14. The Central Finance Commission (Die Central Finanz-Commission) is composed of five deputies from the Senate, and five from the representatives of the citizens.

15. The Consistory Courts, (Consistorien). The Evangelical Lutheran Consistory consists of two deputies from the Senate, three clergymen, and one judicial Consistory counsellor. The Evangelical Reformed Consistory has two senators, two spiritual Consistory counsellors, and two lay assessors.

16. The Income Tax and Sinking Fund Commission, (Die Einkommensteuer und Schuldentilgungs-Commission). This consists of five

deputies from the Senate, and five from the representatives of the citizens. A section of this body, consisting of two senators and two representatives of the citizens, forms the Dwelling-house and Lodgings' Tax Commission, "Die Wohn und Miethsteuer Commission."

17. The Forest Office (Das Forst Amt) is conducted by two deputies from the Senate and one representative of the citizens, assisted by a forest conservator staff.

18. The Guilds Deputation (Die Innungs-Deputation) has the junior burgomaster as president, assisted by two members of the council of the third order.

19. The Catholic Church and School Commission (Die Katholische Kirchen-und Schul-Commission) is under two members of the Senate, two ecclesiastics, and one layman.

20. The War Office (Das Kriegszeug Amt) is managed by three deputies from the Senate and one from the representatives of the citizens; over whom the senior burgomaster presides.

21. The Land Office (Das Land Amt). This is distinctive from the City (Justice) Land Office, attending to matters of government and finance of the eight villages dependant upon Frankfort, and overlooking the institutions relating to charities, trades, buildings, police, &c. It is managed by three deputies from the Senate and one representative of the citizens.

22. The Pawn Office (Das Pfand-Amt). Pawnbroking is a government affair in Frankfort, as in China, lending small or large sums upon suitable deposits. It is managed by three deputies from the Senate and two from the representatives of the citizens. No private pawnbroking establishment is permitted.

23. The Police Office (Das Polizei Amt). The junior burgomaster presides over this office, assisted by a senator of the second order and a counsellor of the third order. The staff of the office consists of an assessor, two actuaries, and two commissaries, &c. This office has an administrative and investigating competency; regulates the cleansing of the streets, fixes the price of every kind of food or necessaries of life, "Lebensbedürfnisse," and inspects the quality of the same in regard to health. For the protection of the living and of property, and for the prevention of disturbances endangering the public weal, there are 48 gens-d'armes, with six sub-officers and a superior officer; also 64 night watchers; and, for the outskirts of the town, 20 armed field-police, under two petty officers.

To the Police Office is joined the Fire Office. The fire-engine establishment is under the superior inspection of the junior burgomaster, who, immediately on a fire breaking out, orders the engines to the spot. The town is divided into 14 quarters, each of which has its engines, which quickly repair to the endangered neighbourhood on the alarm being given from the great watch-tower; and the city militia assemble for the preservation of order.

The Lock Hospital, as well as the Houses of Correction and Labour, are also under the inspection of the police. Since 1809 the Houses of Correction and Labour have been separated from the Orphan House.

For improving the moral and religious feelings of the inmates of these establishments, curates are appointed, and Sunday service is performed in one of the roomy wards; and beyond this, the prisoners can obtain religious books from a collection kept for their use.

The police have daily reports of all strangers who stop in the city made to it by the owners of houses where they take up their residence; the profession, name, rank, residence, &c. being given under severe penalties; and if they stay more than 24 hours, strangers must give up their passports and obtain written permission to remain. All servants, male or female, are obliged to take out books from the police, in which every particular connected with themselves is entered in different ruled columns; also name of master or mistress, date of employment, date of discharge, &c.; and a discharged servant is compelled, within 24 hours, to inform the police of the fact, and show his or her book, with the remarks upon it.

But the duties of the police extend to an infinity of other matters. The butchers, for instance, exercise their avocation each with a particular class of meat. He who sells beef does not sell mutton, and he who sells pork sells neither mutton nor beef. But, independently of these restrictions, each butcher can only sell a limited quantity of meat daily; and if he be so popular as to have a demand for more than his limited proportion, he must take it from some other butcher who has not yet sold his proportion; at least so I was told.

Women of the town are under the police. They are lodged in certain fixed localities, their numbers regulated, are subject to medical visitations; and when they travel, the poor creatures are obliged to record their profession in their passports in the coarsest terms. The number of illegitimate births will show that these restrictions have little effect upon morals.

Hackney carriages are under the police; and in each carriage is stuck the printed regulated rate of hire, the fare varying with the number of persons carried and the time occupied. The remuneration for the use of waggons, carts, trucks, porters, &c. is all fixed, contingent on weight and distance. Fire-wood is sold by the state, and the charge for its carriage is regulated by the distance it is taken. The men employed to saw the logs into lengths and split them are paid according to the number of lengths they saw; and in case the hatchet is used as well as the saw, in consequence of knots in the wood, the extra remuneration is fixed by the police.

The chimney-sweepers must inspect every chimney periodically, whether the owner of a house desire it or not, and the remuneration is fixed. In short, industry of all kinds, as well as all other matters, come under the cognizance of the police.

24. The United Excise and Exchequer Office (Das Vereinte-Rechenei und Renten-Amt) occupies the time of a numerous staff of accountants, under the direction of seven deputies from the Senate and four from the Representatives of the citizens. It looks to the accounts of the Mint, the land and river tolls, public stables, wood office, the purveyors, the carriers, city weighing department, the wharf cranes, the hay and goods weighing, the city gates accounts (weighing and passes, &c.), the bills of exchange and stamp office, the city salt magazine adminis-

tration, the sales by public outcry, the measurers, the exchange brokers and merchandise factors, the corn markets, the gauging institution on the Main, and finally, the malt and meal weighing.

25. The Health Office, or College of Medicine (Das Sanitäts Amt). Matters relating to the practice of medicine and to the public health in the city and dependencies are subject to magisterial control, under the presidency of the younger burgomaster, assisted by four consulting physicians. All the professors of the healing art are subject to this office, namely, 83 physicians, 11 apothecaries, 12 surgeons of the first and 10 of the second class, 7 dentists, 14 midwives in the city and 11 in the suburbs and villages, and 5 veterinary surgeons; so that there is about 1 medical man to every 500 souls; and as the annual average of births is 1187, each midwife averages 85 cases for the city and Sachsenhausen. There are 125 lawyers in the city, so that not only the bodies, but the goods, of the lieges must be well looked after.

26. The City Chamber (Die Stadt-Kammerei) is connected with the Exchequer and the Finances, and is under the direction of two deputies of the Senate and one representative of the citizens.

27. The City Lottery (Die Stadtlotterie) is managed by four senators and four representatives of the citizens. Raising money by lottery is in great favour with governments in Germany. There are two lotteries annually in Frankfort, and shares are obtainable down to the value of a few pence; so that the very mendicant can have a chance. Some of the projects of lotteries of the petty states or principalities would seem to be more ingenious than honest. A loan is raised in small shares (25 florins, for instance), to be paid off in a certain number of years, so much annually; but, instead of interest being annually paid upon each of these shares, the shareholders are entitled to the *chance* of a prize, a small portion of the interest that government *ought to pay* being distributed in small prizes. If the shareholder's number comes up without a prize attached to it, the money originally lent to government, possibly years before, is repaid *without interest*; if the number is drawn with a prize attached to it, the lucky holder may consider it a godsend. Original shares, or numbers remaining undrawn for successive years, advance in saleable value annually, from the greater chance of obtaining a prize. My German cook, who held one of these subscription shares of 25 florins undrawn for several years, could obtain in the money and share market 35 florins for it in 1844; these lottery shares being quoted in the Price Currents, and being negociable like other securities. I presume the Germans are peculiar in finding this lottery system attractive. To the credit of Frankfort, its lottery is not upon this principle.

28. The Foundations' Deputation (Die Stiftungs-Deputation). Charitable foundations are watched over by two deputies from the Senate.

29. The Enquiry Commission (Die Untersuchungs-Commission) looks to the claims and rights of citizenship, sojourners, &c., and is superintended by the junior burgomaster, assisted, if necessary, by two senators of the third bench.

30. The Tolls and Customs Administration (Die Zollverwaltung) is under a director, two counsellors, two secretaries and accountants

and other aids, together with an "association attorney." The Head Tax Office is under this department.

31. Office for Complaints in Toll and Customs matters (Die Zoll Untersuchungs-Behörde) is under a Toll Enquiry Judge and an actuary.

32. Senate's Miscellaneous Commissions (Besondere Senats-Commissionen) are charged with the correspondence with the ambassadors of the Confederation, on post-office affairs, the right of the city in respect to taking cognizance of post, and toll and customs matters, &c. &c.

33. Military Organization Department (Das Militärwesen).—The city has always had its military force, and traces of its existence are met with as far back as the year 1050. In 1463, it counted as many as 4000 well equipped citizens. After 1614, the town was divided into 15 quarters, which were reduced at a latter period to 14, each having its flag and company of men under a captain, lieutenant, and ensign, with a muster-master. Since 1657, in addition to the 14 companies of the quarters, there has been a body of citizen cavalry; about the same time the villages dependent on Frankfort had their militia, which was called out while the fairs were being held. In 1793, a body of volunteer sharpshooters was formed, which still exists. In the present century a body of troops of the line was formed 500 strong. In 1812, when the city was given to the Fürst Primas, he abolished the quarter companies, and raised 4 battalions of National Guards, the fourth to have the express duty of attending at fires. The efficiency of these battalions was proved for five days during the retreat of the French from Germany.

Subsequently a reorganization of the citizens for the city defence, "Stadtwehr," took place, by enrolling all men under 60 years of age, and the military body now consists of a squadron of cavalry, a company of artillery, a battalion of sharpshooters, one of yagers, one of infantry, a fire battalion, and three other battalions of infantry, the first of which only is in uniform, and regularly armed; and two battalions of militia for the 8 dependent villages. All these are called Volunteers, although their service is compulsory, to distinguish them I suppose from the battalion of the line, which takes the daily duty of the city, the men of which are *enlisted*, and therefore genuine volunteers. This battalion of the line consists of more than 700 men, and is commanded by a lieutenant-colonel. A conscription law exists in Frankfort, but substitutes are permitted.

This concludes an enumeration of 33 public offices or departments, each with its functionary or functionaries, assistants, and dependents, for a population, including the 8 dependent villages, of 66,244 souls, all paid for of course by the inhabitants. How long such a division of labour, and multiplication of offices, would be suffered to exist, were there an annual publication of the city accounts, and an effective representation of the citizens, would scarcely be a debatable question.

The classes of inhabitants in Frankfort consists of citizens, sojourners, the so-called Jewish citizens, and people having (limited?) permission to domicile themselves. The first alone have the real rights of citizens. The other classes are under the protection of the law, and can legally exercise their profession while permitted to remain; but no

citizen rights are permitted to them, and as I was led to understand that the genius of the institutions of the city is opposed to the extension of the guilds and professions, and even to changes, except in filling up vacancies as they occur, there are small inducements to these classes to extend their numbers. The inhabitants of the 8 villages dependent upon the city are under its protection. (Staatsunter thanenverhältniss.)

The armorial bearings of the city (das Mappen der Stadt), were probably an imperial concession. They consist of a crowned white, or silver, spread eagle, on a red ground, the tongue and claws blue, and the feet golden. In the olden time, the arms were a black eagle.

Religious Constitution and Communities (Kirchliche Verfassung).

In 1533, after the Reformation, the celebration of all Catholic ceremonies, was interdicted in Frankfort, and it was prohibited to the people to hear mass, or to baptize their children in that faith. This interdict was afterwards removed. In 1633, the Catholic priests who refused homage to the Swedes were expelled; but by the treaty of Prague, in 1636, matters were restored to their former state, and since that period the Catholics have not been interfered with respecting their rites and ceremonies, and they are allowed to possess civil rights in common with the Lutheran citizens. As early as 1522, Lutheran doctrines found so many friends in Frankfort, that Hartmann Ibach was enabled to preach against celibacy in the church of St. Katherine. In 1524, many monks and nuns quitted their cloisters, and in 1525, the Lutherans had possession of the churches of St. Katherine, St. Bartholomew, and the "Three Kings," and some time after of St. Peters; and in 1530, the mass was abolished in the church of St. Nicholas. But the emperor interfering in 1548, the church of St. Bartholomew (which is the cathedral) was given back to the Catholics. Prior to 1806, the Lutherans were the paramount parties in political rights; but subsequently to the self-government of the city being restored, the three Christian communities—Lutheran, Calvinist, and Catholic—were put on an equal footing. During the persecution of Mary in England, Frankfort afforded an asylum to the expatriated; but most of whom returned to their fatherland on the accession of Elizabeth. Matters ran very high for a long time between the Lutherans and Calvinists; and up to 1785 the latter were obliged to celebrate their worship in the village of Bockenheim, outside the town. At this period the German and French Calvinists were permitted to build two chapels within the city, but they were not to have towers or clocks. Since that period, those who conform to the laws are not troubled about their religious belief; and all communities, whether Christian or not, are entitled to the protection of the State.

The Lutheran Community (Die Lutherische Gemeinde) have 12 clergymen, at the head of whom is a senior, constituting the church ministry. The Lutheran consistory is over this ministry, as church guardians. The senate confirms the choice of a preacher, on the proposition of the consistory and elders; either from the clergy belonging to the 8 villages, or from the candidates for the ministry, whose number

at present amounts to 19. The village parsons are likewise proposed by the consistory, and appointed by the Senate.

The Reformed Church (Die Reformirte Gemeinde) is the Calvinist or Presbyterian, and has 2 Presbyteries, 1 German and 1 French, each consisting of 2 preachers and 6 church elders. The preachers are paid by their several communities, and the State does not interfere in their choice.

The Catholic Community (Die Katholische Gemeinde) are under the diocese and bishopric of Limburg. The priests are accepted by the Senate, on the proposition of the Catholic Church and School Commission. Besides a city preacher, a canon of Limburg, and the bishop's commissary, the Catholic ecclesiastical body consists of 2 directors, a parish administrator, and 8 chaplains.

The Lutheran as well as the Catholic communities, have each their church representation, to protect the interests of the community in church business, and to administer the church property, &c. &c.

The treasurership of the Catholic Church, is managed by a section of the church representation.

The Mixed Church and School Commission, consists of 9 members from all Christian communities; namely, 6 deputies from the Senate, and 3 clerical councillors. A particular commission of the same is charged with the superintendence of the proclamation of mixed marriages. Frankfort pays annually 6000 florins to the Catholic bishop, and gives salaries also to the Lutheran and Catholic priests; but not to those of the Calvinist persuasion, who would not receive aid.

The Church and Burial Ground Commission, is charged with all matters relating to burials, vaults, graves, &c. The House of Peace (Friedhof), as the Germans poetically call the cemetery, is situated some distance outside the city. It is very prettily planted and laid out, and ornamented with numerous monuments, in very good taste. The enclosure is common to Christians of all sects. It is separated from the Jewish cemetery by a lofty wall. Sachsenhausen has its own small cemetery.

The Head Church-book Office (Die Haupt-Kirchenbuch Expedition) is charged with the registries of marriages, births, deaths, &c. &c.

The Frankfort Bible Society (Die Frankfurter Bibelgesellschaft) was established on the 1st January, 1816. The directors, consisting of 9 members, hold a meeting every 2 months.

The Frankfort Evangelical Missionary Association (Der Frankfurter Evangelische Missions-Verein) was formed in the 17th November, 1819, and is under 8 directors.

The Evangelical Association (Der Evangelische Verein), for furthering Christian knowledge, and Christian habits, was founded on the 6th October, 1837. For furthering business, there is a committee of 21 fellows, and a sub-committee of 5.

Another Evangelical Association was instituted on the 2nd May, 1842, for giving aid to the indigent of the Protestant community. Its business is conducted by a director and 9 members.

The Jews are divided into two sects, the Talmudists, and the Rationalists, and have necessarily two synagogues.

Institutions for the Poor.

The common poor box, or fund, (Der allgemeine Almosenkasten,) was founded in the year 1428 by John Weissbinder; 10 years later John von Holghausen added to the fund, and subsequently many others; and accessions fell to it from other sources. The Executive or Disbursement Committee distributed yearly in the 14 quarters of the city a great quantity of bread and wood, and the ready money given away is said to amount to 50,000 florins annually. This great outlay is supported by legacies, gifts, and by Sunday collections at the several Lutheran churches. Even with assistance from all the Christian churches, the funds are frequently insufficient to meet the claims, and the city chest is obliged to give its aid. Independently of the common poor box, each religious community has a box for its own poor.

The Orphan House, (Das Waisenhaus). The present large and simple, but dignified building, stands on the site of one erected in 1675. It receives the orphans, both male and female, of all the Christian communities. The bed wards run from end to end of the extensive frontage, and are well ventilated. On my visit there were not any bad smells, and everything looked clean and comfortable. To my surprise, each child's bed had a feather pillow. Meat is allowed only twice a week, and on other days soup and vegetables. A piece of rye bread constitutes a child's breakfast. The children in general did not look clear-skinned nor healthy; certainly not robust. The institution is supported partly by the State and partly by subscription, bequests, gifts, &c., particularly from an important accession from the deceased Philip Henry Flick. There are usually from 200 to 250 orphans in the house, boys and girls, who are instructed by resident teachers.

The Poor House (Das Versorgungshaus). Although the poor are generally looked after and their wants attended to in their dwellings, yet this capacious modern building was deemed necessary as auxiliary to the system, to aid houseless operative citizens or sojourners, or their wives, who are selected and recommended for residence by committees of the different communions. Most of the residents are above 60, and on my inspection of the institution in March last I found 72 males and 40 females located in the building. If husband and wife come in, they are not permitted to live together, although under the same roof. Work is supplied to the out-door poor in their several vocations who choose to come and labour in the work-room, and they are paid for their labour; others can come and learn a trade. I observed the men employed in shoe and basket and mat-making, wool and coffee picking and cleaning, &c. The old women were engaged in spinning, knitting, and sewing. Meat is given three times a week; soup and vegetables on the other days. Coffee for breakfast daily. The poor are located in small rooms, six or eight in a room. Not only were there feather beds, but numerous feather coverlets, like eider down quilts,—mostly, however, brought in by the poor themselves. The Catholics have a chapel to themselves in the house. The smells in the work-rooms were bad, but the dormitories were free from odour. It is assisted by the State, and by gifts and contributions; but is understood to be more wanting in funds than any other institution in Frankfort. In general the different religious communities look after their own poor, through the medium of committees.

The Destitute Females' Institution of St. Katherine's, and the White Ladies Convents (Die Weiblichen Versorgungs-Anstalten der St. Katharinen, und Weisfrauen Klöster). These two former convents for unmarried females have merged into the Lutheran Charitable Institution for females, so that at present from the income of the first 24 women, and from the last 13 females, draw pensions. The choice of the widows and orphans is in the Senate, who usually lean to those whose husbands or parents have served the State.

The Aid Society of the Netherlands Community (Die Unter-Stusungsaustalt der Niederländischen Gemeinde) was established in the 16th century by the Lutherans, who were driven from Antwerp on account of their religion, and found an asylum in Frankfort. The poor of this rich community are maintained out of a common purse, supplied by contributions of the wealthy. With the institution is joined a house for orphan boys, who get well educated.

The Aid Society of the Oberland Community, as distinguished from that of the Netherlands, was founded in 1754 by Lutherans, and in 1778 was recognized by the State. It is in imitation of the preceding.

Dr. Flick's foundation has several beneficent aims. It is committed to two administrators, the survivor of whom chooses an associate on the death of his fellow.

Besides the above, there are ten widows' and orphans' funds, namely, of the Civil Servants, of the Physicians, of the superior Officers of the Troops of the Line, of the Evangelical Lutheran Preachers, of the Village Pastors, of the regular Teachers of the Gymnasium, of the Model School, of the Common School, and of the regular teachers of the Catholic and of the Village Schools.

The Loan Fund (Die Hülfskasse) owes much to the large donations of the former Grand Duke. Its object is to assist honest citizens, who, in pursuit of their business, are in want of money.

A remarkable institution, called the "Cronstett und von Hynsperg'sche Damenstift," or Ladies Foundation, must not be omitted. It was founded by Justina Catherine von Cronstett, in 1753, for portionless single females of the noble houses of Alten-Limburg. She left her own princely mansion, with a frontage of from 15 to 21 windows on a floor (I do not recollect the exact number), towards the Rossmarkt, for the location of 12 single ladies of pious and pure life, who dine together, but have each two separate rooms, receive their friends, and remain in the house until they marry or die.

The Jews are not behind their Christian brethren in the number and efficiency of their charitable institutions and societies. Amongst these are a society for giving dowries to the daughters of Jewish citizens (so called), bequests for doing the same for two poor girls annually, society for distributing fire-wood to the poor, institution for poor single persons, for poor women lying in, and for many religious objects.

The exclusion of the Jews from the guilds at an early period induced that community to look to the means of furthering the condition of their craftsmen. Their emancipation during the reign of the Grand Duke led to the establishment of a society for this purpose; but this fell with their short lived freedom, on Frankfort being restored to its former political condition. From a society, however, for teaching handicrafts to the children of foreign Jews, arose the present flourishing Jewish Association,

supported by more than 500 subscribers, having the same object in view for the Jewish youth of the town, which, after 18 years' operation, has been attended with signal success, and its pupils are spread in the most distant regions. The success of this Association has led to the establishment of many others in Germany on the same model.

I may remark here, that one of the characteristics of Frankfort is the disposition of the people to form themselves into associations and societies for any and all objects—free-masons, merchants' associations, shooting societies, unions for reading, balls, music, &c. The best of these is the Casino, possessing excellent apartments, looking on the Rossmarkt. It consists of two classes—annual subscribers and a class of strangers, who are very liberally permitted to subscribe for three months; and fellows can introduce a stranger for a month without payment. It is abundantly supplied with periodicals and newspapers; has billiard tables, chess boards, card tables, &c.; and the fellows give several balls to the ladies in the year.

Several of the second rate hotels give balls (some of them masked) once or twice a week, chiefly on *Sundays*, and the admission is so low, that the lower classes can participate in them; much I should think to the risk of their own moral feelings, and certainly to the scandal of the town.

I wish I could state any thing specific respecting the finances of Frankfort; but considering that it calls itself a free city, that it has a semblance of a representative system in its administration, I must say that a secrecy is preserved with respect to the details, and even the amount of its income and expenditure, which is very discreditable to the governing body. The other free cities of Germany permit financial facts to appear in the Almanac de Gotha, and most of the despotic states of Germany have even less reserve in this important matter, particularly Prussia. It is said, that the financial accounts are always open to the inspection of the members of the representative body, but they do not promulgate details out of doors; and it was in vain I tried to obtain detailed information on the subject. A member of the lower house, a friend of my friend, at the request of the latter, inspected the books, and as far as his memory served him he communicated the result of his observation. The income of the city was about 1,280,000 florins, made up of about 80,000 income tax, 80,000 house tax, 70,000 octroi, 80,000 stamps, and 80,000 to 90,000 forests; and it has its share of the collections of the Zollverein, in proportion to the number of its inhabitants. The expenditure would appear to be a profound secret, for of that I could not obtain any account whatever. A German friend, to whom I applied, laughingly said it was a "mystery." The income tax is levied in a progressive percentage, according to the amount of income. Under 150 florins the tax is 15 kreutzers, or 5*d.* At 1000 florins, it is $\frac{1}{2}$ per cent; at 4000 florins it is $\frac{1}{5}$ ths per cent.; at 8000 florins it is $\frac{1}{10}$ ths per cent.; and all income above this sum pays 2 per cent.

In one matter Frankfort has a decided advantage over England, and that is in the cheapness of printing, and the consequent easy diffusion of information; and tradespeople have an incalculable advantage in the cheap facilities afforded to them for advertising their goods. The subscription to the "Intelligence Blatt," issued thrice a week, is 3

florins, or 5s. per annum, and 2s. 6d. for the half-year, paid in advance. For this trifling sum the subscriber has sometimes as much as 36 pages of letter press. The Government proclamations, official acts, proclamations of marriages, births, and deaths, are inserted weekly in this paper. Advertisements are inserted at 6 kreutzers, or 2d the line running across the whole width of the newspaper, and 1½c. for the half line.

In this place it will only be necessary to enumerate the various societies for different objects, as statistical details will be given of most of them. The Physical Society, the Medical Institute, the Natural History Society, the Natural History Museum, the Geographical Society, to which a statistical section is added, the College of Advocates, the Polytechnic Society, the Trades Association, the Institute for Garden and Field Culture, the Savings' Bank, the Institute for Improving the Condition of Servants, and for giving annual prizes to those who from length of service deserve them, and the Institute for the Blind.

The City Library is on a very good footing; comprising also some cabinet pictures and antiquities. There are also valuable private libraries, and reading societies. Frankfort has its journals and newspapers, the Frankfort Journal being in French.

With respect to Städel's Institute of the Fine Arts, comprising as it does a gallery of numerous pictures, some of them good, ancient and modern, it may be desirable to say a few words. It was founded in 1816 by a citizen of Frankfort, John Frederick Städel, whose object was not only the encouragement of the fine arts, but also that poor children of the citizens of Frankfort, without distinction of race or religion, should be *gratuitously* instructed in drawing, painting, copper-plate engraving, statuary, architecture, &c. The management of the institute and its funds are confided to five fellows; and, on a vacancy occurring, the others must elect a person to supply the place. The public are admitted daily to the collection of pictures, from 10 till 1; but to the library on Tuesdays and Thursdays only. Of the Flemish school there are paintings by Rubens, Ruysdael, Berghem, Wouvermans, Weenix, Hobbema, the two Vander Veldes, Ostade, the two Teniers, &c. Of the old Dutch school paintings by Schoreel, Granach, Quentin Matsys, van Eyk, Holbein, Durer, &c. Of Frankfort painters, works by Elsheimer, Lingelbach, Steenwick, Roos, Schuts, &c. Of modern painters some are very large, and a few of them are very good. Lessing's "Huss before the Council" is excellent. There are also some landscapes of his pretty good. Overbech's "Triumph of Religion" is good; also Rethel's "Daniel in the Lions' Den." A few of the Italian school are scarcely worth notice. There are also some antiquities.

The meteorology of a country so much influences its vital statistics, that it will be necessary to say a few words on the subject. The following means, maxima, and minima monthly, for the period between the years 1827 to 1838, at Frankfort, are from observations by Von Kreigf, the 10 p.m. observations being only from 1827 to 1835.

TABLE I.

Months.	9 A.M.			12 o'Clock.			3 P.M.			10 P.M.			Monthly Mean Temperature.
	Mean.	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	
January	Deg. Fahr. 28.2	Deg. Fahr. 54.0	Deg. Fahr. -8.0	Deg. Fahr. 32.0	Deg. Fahr. 55.8	Deg. Fahr. -3.8	Deg. Fahr. 31.8	Deg. Fahr. 57.0	Deg. Fahr. -3.8	Deg. Fahr. 28.6	Deg. Fahr. 54.9	Deg. Fahr. -10.7	Deg. Fahr. 30.15
February	32.0	52.9	-10.7	36.7	57.4	-1.5	37.2	58.5	-3.1	32.0	51.8	-10.7	34.5
March	41.4	57.9	24.6	46.4	65.7	27.5	46.3	72.7	27.1	40.1	59.4	22.6	43.5
April	49.7	71.8	27.9	57.6	75.9	38.3	56.5	81.5	29.8	47.1	64.8	27.5	52.7
May	59.7	82.2	44.2	66.4	85.5	44.8	66.7	96.8	41.9	56.1	75.9	37.2	62.2
June	66.0	81.5	47.8	71.8	89.4	55.6	72.5	96.8	51.1	62.1	75.9	43.2	68.1
July	68.7	84.0	54.5	75.4	91.2	48.9	76.1	95.7	57.2	65.1	80.6	50.0	71.6
August	65.3	82.8	52.2	71.1	89.8	54.5	72.5	91.6	55.2	62.8	81.0	51.1	87.9
September	58.3	74.7	52.2	64.4	79.5	52.2	65.3	85.5	50.9	56.5	69.0	45.0	61.1
October	49.3	63.5	30.9	54.3	68.0	39.4	55.6	72.5	34.2	48.9	63.5	32.2	52.0
November	38.3	57.9	5.0	41.7	60.1	5.1	42.1	60.1	20.8	38.7	60.1	14.0	40.2
December	34.5	54.0	2.7	37.4	55.5	8.2	37.6	55.6	8.4	34.9	34.7	3.2	36.1
Total Year	49.3			54.6			55.9			47.7			51.6

The latitude of Frankfort is $50^{\circ} 6' N.$ and the longitude $8^{\circ} 36' E.$ of Greenwich Observatory. The latitude of London is $51^{\circ} 31' N.$ and the longitude $0^{\circ} 5' 48'' W.$ of Greenwich. The mean temperature of Frankfort for the year, it will be seen, is $51^{\circ} 6'$ of Fahrenheit, while that of London, deduced from 20 years' observations by Mr. Howard, is $50^{\circ} 5'$. This difference of mean temperature might be looked for from the difference of latitude; but Frankfort has an infinitely greater range of the thermometer than London, the cold of winter being much more severe, and the heats of summer much more oppressive. The mean temperature of January in London is $36^{\circ} 34'$, while for 11 years in Frankfort it is $30^{\circ} 15'$. In December, London is $38^{\circ} 71'$, while Frankfort is $36^{\circ} 1'$. The hottest month in both cities is July; but in London the mean temperature is $62^{\circ} 97'$, while in Frankfort it is $71^{\circ} 6'$; and by Mr. Kreigf's table it appears that at 12 o'clock, in 1830, the thermometer rose to $91^{\circ} 2'$; at 3 P.M. $95^{\circ} 7'$ in 1828; and in June, 1828, at 3 P.M., $96^{\circ} 8'$; and at 10 P.M., in 1832, in July, the *minimum* heat was 50° . On the other hand, the cold at Frankfort is extreme at times. The minimum in January, 1830, at 9 A.M., was 40° below the freezing point; and at 10 P.M., in 1830, even $42^{\circ} 7'$ below the freezing point. Under these circumstances, as might be expected, the annual range of the thermometer is very considerable; and Von Kreigf states that in the year 1827 it ranged from $28^{\circ} 8'$ plus to 22° minus, or $50^{\circ} 8'$; that is to say, from $96^{\circ} 8'$ Fahrenheit to $49^{\circ} 5'$ below the freezing point—a range of $114^{\circ} 3'$ of Fahrenheit. This must necessarily be very trying to constitutions not robust.

The monthly increment and decrement of temperature following the sun's course, will consequently not be found to correspond in Frankfort and London. In the former, the monthly differences are, January being the coldest month,

Frankfort . . . Jan. to Feb. $4^{\circ} 31'$ + March, $9^{\circ} 0'$ + April, $9^{\circ} 2'$ + May, $9^{\circ} 5'$ + June, $5^{\circ} 9'$ + July, $3^{\circ} 5'$ +
London . . . Jan. to Feb. $3^{\circ} 26'$ + March, $2^{\circ} 41'$ + April, $5^{\circ} 60'$ + May, $7^{\circ} 79'$ + June, $5^{\circ} 96'$ + July, $3^{\circ} 61'$ +

Frankfort . . . Aug. $3^{\circ} 7'$ — Sept. $6^{\circ} 8'$ — Oct. $9^{\circ} 1'$ — Nov. $11^{\circ} 8'$ — Dec. $4^{\circ} 1'$ — Jan. $5^{\circ} 85'$ —
London . . . Aug. $0^{\circ} 7'$ — Sept. $5^{\circ} 2'$ — Oct. $6^{\circ} 91'$ — Nov. $8^{\circ} 3'$ — Dec. $3^{\circ} 69'$ — Jan. $2^{\circ} 37'$ —

The chief features here are the rapid increase of temperature at Frankfort, at the rate of 9° monthly, to June; while in London the temperature increases gradually, the greatest monthly differences being less than 8° in May. In Frankfort there is a fall of $3^{\circ} 7'$ in August, while in London, July and August scarcely differ in temperature. Another feature of Frankfort is the great fall, of nearly 12° , in November, while in London it is not more than $8^{\circ} 3'$. The fall also from December to January, in Frankfort, is $5^{\circ} 85'$, while in London it is only $2^{\circ} 37'$.

The next great meteorological fact bearing upon health, probably the most important of all, is the moisture of the air and its changes. The average annual fall of rain in London is about 24 inches; but the fall of rain does not indicate the average moisture of the air, which can only be shown by the dew point. This is not given by Kreigf; and although given for two years by Schmidt, yet I cannot profit by it, as I know not what instrument or what scale is used. I would presume, however, that the climate of Frankfort is comparatively dry.

Frankfort has experienced numerous shocks of earthquakes, and a list of the occasions is given by Kreigf, commencing with A.D. 872 and

ending with A.D. 1728. Their number is 23; and that of 1728 was so severe, that it moved furniture, and shook open closed (locked) doors.

TABLE II.—*Meteorological Characteristics at Frankfort during the Years 1839 and 1840, from Papers communicated to the Geographical Society by L. M. Schmidt,*

	Fog.		Rain.		Snow.		Hail.	Tempests, Thunder, and Lightning.	Dew Point Lines.
	No. of Times.	Total Duration in Days.	No. of Times.	Total Duration in Days.	No. of Times.	Total Duration in Days.	No. of Times.		
1839									
January . . .	2	$1\frac{1}{2}$	11	$4\frac{1}{4}$	13	4	{ *1 }	..	22.05
February . . .	5	$3\frac{1}{2}$	15	$5\frac{1}{4}$	8	$2\frac{1}{4}$	{ *1 }	..	45.30
March . . .	1	$0\frac{1}{2}$	16	4	5	2	1	..	29.10
April . . .	..	..	17	$2\frac{3}{4}$	3	$1\frac{1}{4}$	..	..	15.60
May . . .	2	2	15	$3\frac{1}{2}$	..	..	..	5	21.75
June . . .	1	$0\frac{1}{4}$	21	$3\frac{1}{4}$	..	..	..	5	20.70
July . . .	2	$0\frac{1}{2}$	20	2	..	..	..	9	14.40
August . . .	2	$0\frac{1}{4}$	22	$3\frac{1}{2}$	..	..	..	3	34.50
September . . .	8	2	27	6	..	..	..	4	29.10
October . . .	6	$1\frac{1}{2}$	14	$3\frac{1}{4}$	2	$0\frac{1}{2}$	..	..	22.95
November . . .	3	2	17	$4\frac{1}{2}$	2	$0\frac{1}{4}$	..	..	15.00
December . . .	6	$2\frac{1}{2}$	26	$5\frac{1}{4}$	3	$1\frac{3}{4}$	{ *1 }	..	46.35
Total Year	38	$16\frac{1}{2}$	221	48	36	12	7	26	26.48 mean.
1840									
January . . .	7	$1\frac{3}{4}$	17	$4\frac{3}{4}$	4	1	*1	2	27.75
February . . .	6	$1\frac{1}{2}$	12	$2\frac{1}{2}$	4	$0\frac{1}{2}$	*1	..	13.95
March . . .	1	$0\frac{1}{2}$	6	$1\frac{1}{4}$	13	$3\frac{1}{2}$	*1	..	10.65
April . . .	..	..	7	$0\frac{3}{4}$	..	..	..	..	1.95
May . . .	1	$0\frac{1}{2}$	22	5	..	..	1	2	14.10
June . . .	..	..	21	$4\frac{1}{2}$	..	..	1	5	26.25
July . . .	4	$0\frac{1}{2}$	18	$3\frac{1}{2}$	..	..	..	5	25.20
August . . .	1	$0\frac{1}{4}$	15	$2\frac{1}{2}$	..	..	..	2	10.05
September . . .	2	$0\frac{1}{2}$	26	5	..	..	..	1	28.80
October . . .	4	$1\frac{1}{4}$	25	$4\frac{3}{4}$	..	..	*1	..	21.00
November . . .	3	$0\frac{1}{2}$	28	$8\frac{3}{4}$	2	$0\frac{1}{4}$	*1	2	51.15
December . . .	4	$1\frac{3}{4}$	3	$0\frac{3}{4}$	3	$0\frac{3}{4}$	..	..	7.50
Total Year	33	9	200	44	26	6	10	19	19.10 mean.

* Sleet.

It would appear from the above table that there were 38 times fog in 1839, equal to a duration of $16\frac{1}{2}$ days; quite equal to, if not exceeding, anything we have in London. In 1840 fog occurred 33 times, but equal only to a duration of 9 days. April would appear to be free from them, and they are less constant in *November* than in the winter months. Rain occurred 221 times in 1839, and 200 times in 1841; the duration in the former year being equal to 48 days, and in the latter to 44; and

the fall was not widely different in the respective months of the 2 years. It snowed 36 times in 1839, and 26 times in 1840; the duration of the first, however, being equal to 12 and of the last to 6 entire days. As might be expected, the thunder-storms are most rife in the hot months, and they are somewhat numerous particularly in July. Of the dew point I cannot say anything, as I do not know what instrument or what scale is used, but the *mean* indications are in inches and lines.

TABLE III.—*Prevailing Winds at Frankfort during the Years 1839 and 1840, communicated to the Geographical Society by L. M. Schmidt.*

1839								
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.
January	1½	2	3	0½	0½	14½	6	3
February	0½	2½	1½	2½	..	13	4½	4
March	0½	9	7½	2	1	8	2½	0½
April	3½	13	1½	1	0½	3½	2½	4½
May	4	7½	4	5½	..	2	2	5½
June	1	5½	4	3	2	7	6	1½
July	1	3	0½	1½	0½	16½	4½	3½
August	5½	4½	1½	2	2½	10½	1	3½
September . . . . .	..	1	3½	2½	3½	11	6½	2
October	1	16	4½	4	1½	2	1	1
November	2	5	2	7	1	5½	2½	5
December	1	4	3½	3½	1	9½	3	5½
Total Year	21	73	37½	35	14	103	42	39½

1840								
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.
January	1	9	2½	..	0½	17	1	..
February	1	9½	6½	2	2	6	2	..
March	2	11½	3½	..	..	6	4½	3½
April	2½	11½	11	..	..	2	1½	1½
May	0½	2½	5½	0½	0½	10	8½	3
June . . . . .	..	2½	1½	..	0½	13½	8½	3½
July	2½	0½	0½	0½	0½	16½	6	4
August	4	8½	4½	..	1	10	1½	1½
September	1½	2	2	1	5	12	4	2½
October	1½	6	1½	1½	2½	10½	5	2½
November	1½	6½	2½	1	1½	16	1	..
December	2	16	7	1½	..	4½	..	..
Total Year	21	86	48½	8	14	124	43½	21

In Frankfort, as in London, the chief winds are principally from the westerly points, and singularly so from the south-west. It will be observed that there is considerable uniformity in the winds in the respective months of the 2 years, 21 days in both years from the north and 14 days in both years from the south; and from the west, in 1839, it was 42 days, and in 1840 it was 43½. This uniformity is curious. Mr. Schmidt gives the intensity of the wind for each month, and it is found as the south-west is the most prevailing wind, so is its intensity the greatest. The next in intensity are the north and north-east.

TABLE IV.—*Population of Frankfort, together with Sachsenhausen and the dependent Villages of the State of Frankfort, according to the Census taken in December, 1840; from a Paper by Von Dreitzigacker and L. M. Schmidt, published in the Third Number of the Physico-Geographical Society's proceedings at Frankfort, 1841.*

	Number of Families.	Average souls to a Family.	Men and Boys above 14 Years of Age.	Women & Girls above 14 Years of Age.	Children under 14 Years of Age.		Total Inhabitants.		Total Males and Females.
					Males.	Fe-males.	Males.	Fe-males.	
Frankfort and Sachsenhausen, with their garden houses	7,426	7.66	23,475	23,013	5,218	5,233	28,693	28,246	56,939
1. Village of Bonheim	530	5.46	1,049	1,044	387	418	1,436	1,462	2,898
2. ,, Oberrad	379	5.43	689	760	300	311	989	1,071	2,060
3. ,, Niederrad	286	5.60	518	590	229	267	747	857	1,604
4. ,, Hansen	101	5.36	199	192	84	67	283	259	542
5. ,, Niederursel	86	5.14	159	155	69	56	228	214	442
6. ,, Bonames	86	5.55	244	185	68	73	312	266	578
7. ,, Niedererlenbach	132	5.44	270	210	101	107	371	347	718
8. ,, Dortelweil	100	4.63	157	188	59	59	216	247	463
Total	9,126	..	26,760	26,373	6,515	6,596	33,275	32,969	66,244

The number includes strangers who have lived a year in the several localities.

Population.

The city of Frankfort occupies 625 acres (Morgen), and its lands comprise 10,777 acres. Sachsenhausen stands on 54 acres, and its lands comprise 4,335 acres. The forests of Frankfort contain 15,060 acres; the total area, therefore, contains 30,851 acres: the 8 villages cover 17,619 acres. The population of Frankfort and its dependencies is composed of citizens, sojourners, and strangers, comprised in several Christian sects, and two divisions of the Jews. I tried in vain to obtain the details of the numbers distributed under their religious beliefs, and equally failed in determining the numbers under the various occupations. It is understood that amongst the Christians the Lutherans greatly prevail; they having 7 churches and 3 chapels for divine worship; the Catholics have 3, and are said to number about 7000 souls; and the Calvinists 2 places of worship for 2000 souls. The Herrnhutters have a meeting-house, and the Jews 2 synagogues. I understood that the Jews numbered more than 7000 souls. These several numbers would leave above 40,000 Lutherans. Disabled from obtaining the details of the census of 1840, I went over the Directory, and picked out the following numbers of persons engaged in the chief occupations:—

Advocates, LL.D.	Physicians, including Surgeons and Accoucheurs.	Apothecaries.	Bakers.	Brewers.	Beef Butchers.	Veal Butchers.	Pork Butchers.	Mutton Butchers.	Innkeepers and Inns.	Shoemakers.	Men's Tailors.	Ladies Tailors (also Men.)	Teachers of Music, not including Orchestras.	Letters of Carriages.
96	69	10	44	109	66	25	29	16	58	205	175	64	52	27

These figures exhibit curious features. The lawyers more than double the number of bakers, and nearly equal the combined numbers of the bakers and beef butchers. Law would seem, therefore, to be as much a pabulum for the Frankforters as bread and beef; but the brewers slightly exceed the lawyers: the consumption of beer and law, therefore, runs almost neck and neck. The people support more dispensers of physic in their various grades than bakers or beef butchers. But if numbers supported in each trade be indicative of a predilection of a people, then the passion of the Frankforters is for dress; for the shoemakers, and men's and women's tailors, (the latter being males,) put the combined numbers of lawyers, doctors, brewers, and butchers of all classes—beef, pork, mutton, and veal—out of the category; and I must admit there is some semblance of truth in this, for the Frankforters are a well-dressed people.

There are about 4000 houses in Frankfort, averaging 14 souls to a house, and 12 in Sachsenhausen. But the city is divided into 14 quarters, and the proportion to a house varies from 20 in letter B and letter E to 11·1 in letters K and M. This large average to a house, exhibiting so marked a contrast to England is to be attributed to the magnitude of the houses, and does not occasion crowding. In the respectable and most aristocratic parish in London (Marylebone), the houses average only 9·7 inhabitants; Westminster, only 8·8; and all Middlesex only 7·6. Edinburgh, which I thought, might afford a fair contrast with Frankfort, contains without Leith only 6·5 to a house; Glasgow not so many; and the city of Perth, the extraordinary number of only 3·8 to a house; York city 5; Manchester not quite 6 to a house, and Liverpool 6·9. The feature, therefore, noticed in Frankfort is quite characteristic. The ventilation and drainage in most parts are bad, and the cesspools in most of the houses, even of the palatial character, are intolerable nuisances. The lighting and paving of the city are quite unworthy of it. There are not any foot pavements, and a miserable oil lamp is slung across the street at long intervals, making darkness visible.

It will be remarked that one unusual feature in the population is the equality of the sexes, even at those ages where in most countries females predominate: the males above 14 years of age amount to 23,475, and the females to 23,013, and this character predominates throughout the villages, with the exception of Oberrad, Neiderrad, and Dortelweil; and the final results exhibit the same features, namely, 26,760 males, and 26,373 females above 14 years of age. The sexes under 14 years of age exhibit a contrary feature, and opposed to the usual proportions; the male children amount to 6,515, while the female amount to 6,596. The Fourth Report of the Registrar-General states that 10,846 males are born to every 10,000 females in England; and between the age of 15 and 20 in the Fifth Report, it is calculated that there will be living only 782,425 males to 805,915 females, and the excess of females increases after this period; below 15, the excess is in favour of males. I am not aware of any local cause for this deviation from a general law at Frankfort.

Another unusual feature in the social condition of Frankfort, is the large number of persons constituting a family in Frankfort and Sachsenhausen, amounting to 7·66. If we look to the 7 out of the 8 dependent villages, the variation is only from 5·14 to 5·60. In the village of Dortelweil alone, 4·63 persons constitute a family. If we consider

the average to a house of 3·8 persons in Perth as indicative of each house being occupied by a family; the disproportion between the Frankfort average and this is remarkable.

Another feature in the Frankfort population is its probably stationary character for at least 120 years, judging from the marriages, births, and deaths noticed elsewhere, and this might be accounted for by the stringent character of its municipal institutions, which only permit vacancies to be filled up in the guilds; and persons seeking work or service, to remain in the city only three days, unless they find employment. The free city would thus appear to be little influenced by the progressive spirit of the age.

TABLE V.—Marriages Yearly in Frankfort and Sachsenhausen, according to the Station of the Parties.

—	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	Total for 10 Years.	Annual Ave- rages.
Citizens with citizens .	109	83	108	94	103	97	116	109	96	87	98	991	99 $\frac{1}{10}$
Citizens with residents, } not citizens	113	9	10	15	15	5	10	22	14	14	12	126	12 $\frac{6}{10}$
Citizens with strangers	*	155	138	140	136	157	179	149	135	133	121	1,443	144 $\frac{3}{10}$
Residents with residents, } both not citizens	14	2	2	1	1	1	..	..	2	1	1	11	1 $\frac{1}{10}$
Residents with strangers	†	5	11	10	17	16	13	7	6	7	8	100	10
Strangers with strangers	†	14	5	7	8	12	13	7	11	11	5	93	9 $\frac{3}{10}$
Belonging to the Jewish } community	16	35	24	28	26	23	11	31	12	18	22	230	23
Total Pairs .	252	303	298	295	306	311	342	325	276	271	267	2,994	299 $\frac{4}{10}$

* Included in the above.

† Included in the last.

Marriages, Births, and Deaths*.

It will be observed that in 11 years the births in Frankfort and Sachsenhausen amounted to 13,058, and the deaths to 12,864, making a difference only in favour of the births of 194. Now, as the guilds and trades have not increased from without, and as strangers seeking employment can only remain (unless employed) a limited period in the city, there is reason to believe that the population has remained nearly, if not altogether stationary, for many years back. Indications of this are furnished in the marriages, births, and deaths for periods going back for more than a century in Frankfort and Sachsenhausen.

—	Marriages.	Births.	Deaths.
1720	191	935	1,241
1746	262	1,081	1,345
1749	232	1,013	1,345
1794	288	823	1,497
1840	294	1,145	1,062

* Table VI., see page 342.

TABLE VI.—Monthly Return of Marriages, Births, and Deaths in Frankfort and Sachsenhausen, during Eleven Years.

	1833			1834			1835			1836			1837			1838			1839		
	Marriages.	Births.	Deaths.	Marriages.	Births.	Deaths.	Marriages.	Births.	Deaths.	Marriages.	Births.	Deaths.	Marriages.	Births.	Deaths.	Marriages.	Births.	Deaths.	Marriages.	Births.	Deaths.
January	19	83	102	10	81	95	17	112	90	16	102	134	28	78	100	15	95	102	20	94	128
February	16	59	80	21	89	99	11	110	94	24	95	136	17	109	162	16	114	82	30	113	101
March	32	72	89	18	120	112	24	108	96	23	108	133	16	95	144	24	117	102	20	110	129
April	11	88	123	31	93	137	26	106	98	30	94	122	30	119	164	26	106	107	29	115	129
May	28	95	123	29	116	111	26	76	87	34	98	123	24	100	103	35	98	121	38	104	90
June	22	84	137	24	97	82	22	91	94	18	101	108	24	93	84	23	82	93	26	109	83
July	27	96	100	30	97	93	21	100	72	29	95	75	26	84	92	31	105	83	37	93	79
August	20	101	99	20	95	106	40	91	89	30	89	85	30	89	84	36	103	91	37	97	93
September	21	76	102	24	95	105	28	95	89	25	110	72	28	106	69	25	95	99	30	96	86
October	30	81	94	38	85	96	38	95	59	31	96	78	31	104	71	38	105	108	30	92	87
November	17	79	88	33	97	96	25	92	80	25	97	91	24	77	85	20	86	90	19	91	81
December	9	86	93	25	98	95	20	91	89	20	81	91	18	84	86	22	76	100	26	95	111
Total	252	*1,000	1,230	303	1,163	1,227	298	1,167	1,037	295	1,166	1,248	306	1,138	1,244	311	1,176	1,178	342	1,209	1,197
January	16	96	86	21	123	106	18	104	105	10	128	94	190	1,096	1,142	17	99	103	20	101	103
February	24	87	98	20	99	93	16	116	100	25	120	89	220	1,111	1,134	20	101	112	20	101	112
March	3	98	103	25	119	126	25	99	86	15	102	130	254	1,148	1,250	23	104	113	23	104	113
April	29	108	116	14	111	134	16	97	87	20	99	109	252	1,136	1,326	22	103	120	22	103	120
May	28	104	105	26	108	103	35	108	105	22	104	97	335	1,111	1,168	30	101	106	25	101	106
June	28	111	84	21	119	80	20	118	96	30	90	78	258	1,095	1,019	23	96	91	30	96	91
July	11	101	73	19	114	104	38	117	80	34	102	64	323	1,104	915	29	100	86	30	99	86
August	38	114	83	23	89	91	21	99	97	27	116	83	322	1,083	1,001	29	98	91	30	99	88
September	23	106	70	28	90	83	21	120	98	20	105	92	273	1,094	965	23	99	87	23	99	87
October	29	108	80	28	96	133	25	113	96	30	84	92	348	1,059	994	31	96	90	31	96	90
November	17	95	82	28	92	70	16	100	95	14	93	83	238	993	941	21	90	85	24	90	85
December	30	99	82	23	106	95	20	100	82	20	112	85	233	1,028	1,009	21	93	91	24	93	91
Total	325	1,227	1,062	276	1,266	1,211	271	1,291	1,127	267	1,255	1,096	3,246	13,058	12,864	295	1,187	1,169	342	1,209	1,197

* Not including 62 born dead.

Now, the approximations in these numbers with those in the years from 1720 to 1840, seem to indicate that the restrictive policy is of ancient date, and that no great fluctuations have taken place in the population of the city. The population, by the census of December, 1840, was 66,244, including the 8 villages. In 1837, it was stated to be 63,936, but I know not on what authority this rests, and I shall use, therefore, the number in the city and Sachsenhausen 56,739, of the census of 1840 for determining per centages.

In marking the effect of seasons upon marriages, births, and deaths quarterly, the Registrar-General makes winter end 31st March; spring, 30th June; summer, 30th September; and autumn, 31st December: this does not accord with the curve of temperature, the greatest quarterly cold being in the months of December, January, and February, and not in January, February, and March. The effect of a natural law may be thus masked. He obtains the following results:—

Marriages	Autumn.	Spring.	Summer.	Winter
	36,306	31,355	29,634	25,482
Births	Winter.	Spring.	Autumn.	Summer.
	131,257	129,677	121,058	120,356
Deaths	Winter.	Spring.	Autumn.	Summer.
	97,765	89,141	83,639	75,707

According to the Registrar-General's division of the year the temperature for the quarter is

Winter.	Autumn.	Spring.	Summer.
Faht. 40.2	45.8	54.8	61.1

but if the Registrar-General had adopted the ordinary division of the year, the winter months, consisting of December, January, and February, he would have found that the deaths exactly followed the curve of temperature; and that instead of autumn being the next coldest quarter to winter, spring really is:—

Mean of 10 Years	Winter.	Spring.	Autumn.	Summer.
	Faht. 39.9	48.1	51.4	63.6

The Frankfort Returns for 11 years give the following:—

Marriages	Summer.	Spring.	Autumn.	Winter.
	30 $\frac{6}{11}$	25 $\frac{7}{11}$	24 $\frac{2}{11}$	20 $\frac{1}{11}$
Births	Winter.	Spring.	Summer.	Autumn.
	101 $\frac{7}{11}$	101 $\frac{2}{11}$	99 $\frac{5}{11}$	93 $\frac{1}{11}$
Deaths	Winter.	Spring.	Autumn.	Summer.
	109 $\frac{4}{11}$	106 $\frac{1}{11}$	89 $\frac{3}{11}$	88 $\frac{6}{11}$

The greatest number of marriages occur at Frankfort in summer; in England, in autumn: the least number in winter in both. The curve of deaths is absolutely the same in Frankfort and England. The same is the case with the births, with the exception of the inversion of summer and autumn, instead of autumn and summer. These coincidences are of considerable interest, as strengthening the inference that the seasons influence even social as well as physical events. The greatest number of marriages take place in England in autumn, and according to the natural course of events, the greatest number of births should occur in summer. This is not the case; winter exhibiting the maximum number. In this respect, Frankfort more closely follows the natural law than England. The greatest number of marriages occur in summer, and naturally the greatest number of births occur in winter and spring.

An inspection of the table will show what slight fluctuations there have been in 10 years. In 1833, the marriages were 252; in 1843, only

267. The births were 1,163 in 1834, and 10 years afterwards 1,255. The deaths in 1833 were 1,230, and 10 years afterwards 1,127. One feature in the monthly deaths is decidedly marked, that the average maximum of deaths for 11 years is in the month of April, as if the feeble had just been able to struggle through the intense cold of a German winter, but too much overpowered to rally. The average annual number of marriages for 10 years is $299\frac{1}{6}$; and as the population in the census for 1840 was 56,939, this gives only 1 marriage annually to 190 souls. In Great Britain, for 1841, the marriages were 1 in 130; the mean of 3 years, 1 in 128. In London, the marriages are usually 1 annually in a fraction more than 100 persons. In 5 of the principal Scotch towns, the very lowest proportion of annual marriages was in Perth, being 1 in 159, while Dundee had 1 in 111; Aberdeen, 1 in 140; Glasgow, 1 in 120; and Edinburgh, 1 in 131. The remarkable paucity of annual marriages, therefore, in Frankfort cannot be attributed to natural causes, but to that baneful restrictive policy, which interferes with the laws of nature, and is the parent of moral evils. Parties are not permitted to marry in Frankfort by the municipal laws, unless they have a certain tangible capital to commence life with, (I believe 600 florins,) and the consequences of this interference I shall proceed to exhibit.

Births.*

The average annual births for 10 years in Frankfort and Sachsenhausen is 1205·8, namely, 617·1 males and 588·7 females. The births, therefore, are only 1 in 47·2 of the population, or 2·1 per cent.; while the proportion for England is 1 in 31 of the population, or 3·197 per cent. In France it is 1 in 33, or 3·403 per cent. The restrictions on marriage are manifest in this result; but even of this number so many are illegitimate, that the restrictions are not less prejudicial to the progress of population than to morals. The proportion of births of male to female children is 20·6 to 19·6, or 1·08 per cent. to 1·03 per cent. In England it is 10,486 to 10,000, or nearly 20·9 to 20; in France 21·3 to 20. The *Annuaire* for 1842 says 17 to 16. The birth of males to whole males is 1 in 46·4, or 2·12 per cent., and female children to total females 1 in 47·9, or 2·08 per cent.

Coming now to the consideration of illegitimate births, we find that on an average of 10 years Frankfort gives annually 74·4 boys and 74·0 girls, and for Sachsenhausen 25·3 boys and 21·2 girls, making an annual average of 99·7 boys and 95·2 girls, and a total average annually of illegitimate children of 194·9, independently of the still-born children, whose legitimacy or illegitimacy is not specified. Every 6·18 child born, therefore, or 16·16 per cent. of the whole births, is a bastard!

This melancholy result of moral feeling, unexampled in England and France (for in the former country only 1 in 16, or 6·25 per cent., and in the latter 1 in 13, or 7·69 per cent. is illegitimate), may fairly be attributed to the municipal restrictions on marriage; and if we look to the loss of children under 5 years of age, amounting annually to nearly 32 per cent. for boys and $29\frac{1}{4}$ per cent. for girls of the whole deaths, the mind is unavoidably led to connect this great loss with the disproportionate number of illegitimate births. An onerous responsibility, therefore, may rest upon those who cause this amount of deviation from moral rectitude, and also a responsibility for the possibly fearful consequences

* Table VII., see page 346.

of the deviation. The object of the restrictions on marriage is, no doubt, to guard against a pauper population; but an evil affecting the pocket must be light in comparison with the moral consequences resulting to society from pernicious efforts to guard against it.

Some discussion has taken place both in France and England whether legitimacy or illegitimacy of birth has, or has not, any effect upon the relative proportions of the sexes. The French think that the proportions born in or out of wedlock are different. In wedlock there are 16 boys to 15·023 girls, but out of wedlock the proportions are 24 boys to 23·019 girls; which gives a less preponderance to male births. The Registrar-General in England, in his Report of the 14th August, 1843, says the English returns give a result exactly the reverse of this; the legitimate boys being as 105·4 to 100 girls, while the illegitimate are as 108 to 100. The Frankfort returns support the French view, the legitimate births exhibiting the males to the females in the proportion of nearly 74 to 70½, while the illegitimate births are only as 99·7 to 95·2. Indeed in Frankfort city the male and female illegitimate births are nearly equal.

The total average annual number of still-born children is 66·1, namely, 37·3 males and 28·8 females in proportion to the whole births, being 1 in 18·2 births, or 5·4 per cent.; the males 1 in 16·5, or 6 per cent. of male births, and females 1 in 20·4, or 4·8 per cent. only.—(See Tables VIII. and IX. pp. 347, 348.)

The present table, No. VII, exhibits the deaths in Frankfort and Sachsenhausen, according to the municipal standing of the parties, distinguishing also the deaths of grown-up males from grown-up females, and males and females below the age of 14. Not having been able to obtain the details of the census of December, 1840, I cannot determine the proportion of citizens to sojourners, strangers, Jews, &c. dying annually, but I have calculated the per centages in the sexes, old and young, dying annually. The average annual deaths in the whole population for the 10 years is 2·04 per cent., or 1 in 48·8, nearly 49. This is more favourable than the average for all England, from 1838 to 1841, inclusive, which is 2·22 per cent., or 1 in 45; but the average for the South Midland, Eastern, Welch, South-Eastern, and South-Western divisions of England give 1·99 per cent. of deaths, or 1 in 50 nearly; so that Frankfort is not so healthy as those divisions, but is exactly as healthy as Essex, Suffolk, Norfolk, Monmouthshire, and Wales. Although the respective mortality of males and females, separately considered, is more favourable for Frankfort, namely, males 2·09 per cent., or 1 in 47·7, and females 1·98 per cent., or 1 in 50·2, than the average of all England, which is for males 2·30, or 1 in 43, and females 2·13, or 1 in 47. Yet there are many counties in England which have more favourable indications for life and health than Frankfort; namely, Surrey, Kent, Sussex, Hampshire, Berkshire, Wiltshire, Dorsetshire, Devonshire, Cornwall, and Somersetshire, which average for 4 years, 1838—1841, for MALES 1·98 per cent., or 1 in 50·5; and for FEMALES 1·83 per cent., or 1 in 54·6. Had the vital statistics of the neighbouring duchies to Frankfort been mixed up with those of Frankfort, I have little doubt the numerical indications would not have been so favourable for the city; for assuredly, judging from complexion and appearance, the inhabitants of both banks of the Rhine, from Holland to Strasburg, are not so healthy as the English. The per centage deaths of all France is 1 in 39·7 inhabitants, or 2·52 per cent.

TABLE VII.—Table showing the Births, according to the Station of the Parents, together with the Sex, Condition, and Character of the Births in Frankfort and Sachsenhausen, for 11 Years.

YEARS.	Births according to condition of Parents, without reference to Sex.					Sex of Births.		Condition and character of Births.							Total Births.
	From Citizen Parents.	From Resident Parents.	From Stranger Parents.	From Resident Jews.	From Stranger Jews.	Boys.	Girls.	Twins.	Triplets.	Illegitimate Boys.	Illegitimate Girls.	Boys born dead.	Girls born dead.	Posthumous Births.	
1833	567	*176	..	*69	..	435	377	5	..	67	63	†62	4	812	
1834	669	31	178	61	16	494	461	18	1	73	73	38	33	955	
1835	639	32	187	65	18	455	486	8	..	70	68	34	18	941	
1836	673	31	159	82	15	453	477	9	..	71	67	18	27	960	
1837	619	31	176	73	15	501	415	11	..	65	53	32	21	916	
1838	631	31	183	68	29	478	464	2	1	63	62	23	14	942	
1839	645	28	204	80	36	516	477	13	..	68	74	29	21	993	
1840	677	31	221	62	20	536	475	9	..	73	79	34	20	1,011	
1841	666	47	226	70	31	522	518	14	..	84	96	38	28	1,040	
1842	662	37	247	64	31	533	508	15	..	89	84	33	21	1,041	
1843	643	25	260	62	39	511	521	12	..	88	84	32	26	1,032	
Total in 10 years	6,524	327	2,041	689	250	5,029	4,802	111	2	744	740	311	229	9,831	

YEARS.	No. of Births according to condition of Parents, without reference to Sex.			Sex of Births.		Condition and character of Births.							Total Births of Frankfort and Sachsenhausen.	
	From Citizen Parents.	From Resident Parents.	From Stranger Parents.	Boys.	Girls.	Twins.	Three at a Birth.	Posthumous Births.	Illegitimate Boys.	Illegitimate Girls.	Boys born dead.	Girls born dead.		Total Births.
1833	158	30	..	106	82	3	..	2	18	11	..	..	188
1834	179	4	25	117	91	1	..	2	23	17	2	3	208	
1835	189	7	30	123	103	3	..	1	27	17	7	2	226	
1836	169	4	33	108	93	5	..	25	25	8	9	9	206	
1837	184	12	26	106	116	2	..	29	22	8	5	5	222	
1838	193	5	36	130	114	4	..	23	22	10	9	9	234	
1839	184	6	26	116	100	1	..	20	21	4	10	7	216	
1840	180	5	31	107	109	2	..	20	25	2	7	4	216	
1841	178	14	34	119	107	3	..	24	19	11	4	4	226	
1842	218	10	22	116	134	4	..	28	31	4	5	5	250	
1843	189	12	22	110	113	1	..	34	13	6	5	5	223	
Total in 10 years	1,863	79	285	1,142	1,085	26	1	9	253	212	62	59	2,227	

* Including strangers (exclusive of dead births).

† Without specifying sex.

TABLE VIII.—Table of Deaths, according to Age, in the Towns of Frankfort and Sachsenhausen.

YEARS.	Birth to 5 Years old.		5 to 10		10 to 20		20 to 30		30 to 40		40 to 50		50 to 60		60 to 70		70 to 80		80 to 90		90 to 100		Total.	Grand Total.	Observations.			
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females				Per Cent.	Per Cent.	
On the total deaths	149.3	171.2	288.3	223.3	427.1	347.1	512.2	527.4	588.4	494.6	669.9	422.5	501.1	425.4	401.5	571.4	463.1	1190.2	1134.2	1176.9	11,769	48.0	50.5	49.3	100			
On the total living	179	148	199	190	241	216	316	266	354	283	380	253	296	208	244	316	217	283	171	197	224	224	51.5	48.5	51.5	100		
1835	199	148	204	163	208	148	185	138	185	138	185	138	185	138	185	138	185	138	185	138	185	138	185	138	185	138	185	138
1836	204	163	208	148	185	138	185	138	185	138	185	138	185	138	185	138	185	138	185	138	185	138	185	138	185	138	185	138
1837	208	148	185	138	204	163	208	148	185	138	185	138	204	163	208	148	185	138	204	163	208	148	185	138	204	163	208	148
1838	170	138	185	138	170	138	185	138	170	138	185	138	170	138	185	138	185	138	170	138	185	138	185	138	185	138	185	138
1839	202	185	170	138	202	185	170	138	202	185	170	138	202	185	170	138	202	185	170	138	202	185	170	138	202	185	170	138
1840	170	138	185	138	170	138	185	138	170	138	185	138	170	138	185	138	185	138	170	138	185	138	185	138	185	138	185	138
1841	227	204	170	138	227	204	170	138	227	204	170	138	227	204	170	138	227	204	170	138	227	204	170	138	227	204	170	138
1842	165	166	141	139	165	166	141	139	165	166	141	139	165	166	141	139	165	166	141	139	165	166	141	139	165	166	141	139
1843	175	143	143	137	175	143	143	137	175	143	143	137	175	143	143	137	175	143	143	137	175	143	143	137	175	143	143	137
Total in 9 years	1730	1485	192.2	165	10.3	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
Average.	192.2	165	10.3	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
Born dead, and died in the first 4 Weeks.	88	99	77	65	40	25	37	29	40	25	37	29	40	25	37	29	40	25	37	29	40	25	37	29	40	25	37	29
Died in the 1st Year.	99	87	90	110	93	109	93	109	93	109	93	109	93	109	93	109	93	109	93	109	93	109	93	109	93	109	93	109
Died between the 2nd and 6th Year.	37	29	40	25	37	29	40	25	37	29	40	25	37	29	40	25	37	29	40	25	37	29	40	25	37	29	40	25
Died between the 7th and 19th Year.	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Died between the 20th and 25th Year.	41	32	41	32	41	32	41	32	41	32	41	32	41	32	41	32	41	32	41	32	41	32	41	32	41	32	41	32
Died above 25 Years of Age.	132	110	138	106	132	110	138	106	132	110	138	106	132	110	138	106	132	110	138	106	132	110	138	106	132	110	138	106
Widows.	132	110	138	106	132	110	138	106	132	110	138	106	132	110	138	106	132	110	138	106	132	110	138	106	132	110	138	106
Married.	119	141	138	106	119	141	138	106	119	141	138	106	119	141	138	106	119	141	138	106	119	141	138	106	119	141	138	106
Single.	75	94	75	94	75	94	75	94	75	94	75	94	75	94	75	94	75	94	75	94	75	94	75	94	75	94	75	94
Other Classes.	138	106	138	106	138	106	138	106	138	106	138	106	138	106	138	106	138	106	138	106	138	106	138	106	138	106	138	106
Officers.	12	6	12	6	12	6	12	6	12	6	12	6	12	6	12	6	12	6	12	6	12	6	12	6	12	6	12	6
Citizens & Residents.	229	232	229	232	229	232	229	232	229	232	229	232	229	232	229	232	229	232	229	232	229	232	229	232	229	232	229	232

In all England the total is 2.22 per cent., or 1 in 45; males 2.30 per cent., or 1 in 43; females 2.13, or 1 in 47.

Average male deaths annually, 596.7 in 29,638 males. Ditto female deaths annually, 559.5 in 28,546 females. Total population, 56,939.

TABLE IX.—Showing the Deaths in Frankfort and Sachsenhausen, according to the Condition and State of the Parties, for 11 Years.

Years.	FRANKFORT.										SACHSENHAUSEN.												
	Citizens.	Residents.	Strangers.	Jewish Residents.	Jewish Strangers.	Males.	Females.	Widows.	Boys, inclusive of Dead Born.	Girls, inclusive of Dead Born.	Born Dead.	Total.	Citizens.	Residents.	Strangers.	Males.	Females.	Widows.	Boys, inclusive of Dead Born.	Girls, inclusive of Dead Born.	Born Dead.	Total.	
1833	643	351*	..	*81	..	358	108	115	193	230	51	1,075	124	31	..	32	11	17	39	45	11	155	1,230
1834	650	50	278	68	19	306	125	94	250	290	..	1,065	130	3	29	29	16	16	57	44	..	162	1,227
1835	518	37	254	41	26	286	78	83	184	245	..	876	125	7	29	21	14	20	58	48	..	161	1,037
1836	615	56	292	61	27	343	117	111	186	294	..	1,051	154	10	33	28	17	16	67	69	..	197	1,248
1837	618	67	311	59	26	348	126	137	215	255	..	1,081	131	7	25	33	20	13	49	48	..	163	1,244
1838	583	50	277	57	28	311	115	91	224	254	..	995	145	9	29	30	17	11	68	57	..	183	1,178
1839	539	46	327	61	30	279	115	107	230	292	..	1,023	145	3	26	22	10	12	65	65	..	174	1,197
1840	482	71	274	66	30	314	92	87	200	230	..	923	103	8	28	26	17	18	30	48	..	139	1,062
1841	606	74	264	56	26	346	109	105	189	277	..	1,026	155	15	22	31	12	10	73	66	..	192	1,218
1842	573	64	246	59	35	316	120	127	150	264	..	977	121	11	18	36	13	11	39	51	..	150	1,127
1843	581	67	244	49	27	326	106	113	180	243	..	968	112	5	11	24	15	8	45	36	..	128	1,096
..	5,785	582	2,767	577	274	3,175	1,103	1,055	2,008	2,644	..	9,985	1,321	78	250	280	151	135	557	532	..	1,649	11,634

England—Mean of years 1838-9-10 and 1841.

Note.—As there are some amalgamations of classes in the year 1833, I have struck it out from the averages. Strangers are only enumerated who have resided a year in the city. * Including strangers.

A remarkable feature will be observed in this latter table. While the respective mortality of males and females above 14 years of age was 1.4, or 1 in 67.9 for males, and 1.06 per cent., or 1 in 94.1 for females, the proportions were reversed in the sexes under the age of 14, namely, males 4.9 per cent., or 1 in 23.9; and females 6.06 per cent., or 1 in 16.5. The first of these per centages corresponds with the per centage mortality of male children in the English tables, between the ages of 1 and 3 only, and the per centage of female deaths with that of female children between 1 and 2. At 5 years of age, in England, 1 in 60 only is calculated to die, and yet at Frankfort there is a mortality amongst female children before they are 14, almost amounting in intensity to that of the first year after birth. The average running through 10 successive years, I should have thought there might have been some great disturbing causes, some strange anomalies in the number dying annually; but the close approximations in these numbers compel me to believe that the mortality amongst children is very considerable, and more so amongst girls than boys, contrary to the usual observations.

Educational Establishments.

TABLE X.—Educational Establishments of Frankfort; translated from two Papers communicated to the Physico-Geographical and Statistical Society, in 1840 and 1841, by Von Ravenstein.

	Number of Pupils.					
	1839			1840		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Gymnasium	160	..	160	182	..	182
*Boys' School of the Liebfrauenkirche	136	..	136	131	..	131
Model School	309	220	529	304	218	522
†Middle School	240	152	392	258	175	433
†Weissfrauen School	436	380	816	428	381	809
†All Saints' School	252	254	506	255	247	502
†The Three Kings' School	281	269	550	293	279	572
*Female School by English Ladies . . . . .	..	116	116	..	120	120
*Boys' School at the Cathedral	273	..	273	253	..	253
*Female School of the Rosenberger Union . . . . .	..	273	273	..	276	276
Jewish higher School	216	186	402	220	200	420
Jewish common School, free for permanent residents	20	16	36	8	11	19
Total number of pupils	2,323	1,866	4,189	2,332	1,907	4,239

The schools marked with an * are Catholic; those with a † Protestant.

The Gymnasium is the oldest of the schools in Frankfort. It commenced in 1521. It is divided into 6 classes, and has 15 teachers.

Independently of the classics and mathematics, modern languages, singing, drawing, and calligraphy are taught.

The Gymnasium is under the inspection of the Lutheran consistory.

The Protestant popular schools are constituted by a decree of the Senate, of the 17th March, 1823, under the direction of both the Protestant consistories.

The Model School has 19 instructors and 3 instructresses, and the pupils are taught the elements of religion, natural philosophy, the German language and history, mathematics, arithmetic, geography, the French language, drawing, singing; and in the girls' department needlework.

TABLE XI.—Number of Attendances at the Middle, Weissfrauen (White Women), Allerheiliger (All Saints) and Three Kings' Schools, since their foundation.

	Middle School.			Weissfrauen School.			All Saints' School.			Three Kings' School.			Grand Totals.
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	
1824	241	221	462	312	273	585	289	296	585	277	290	567	2,199
1825	280	258	538	347	313	660	302	288	590	289	284	573	2,361
1826	273	256	529	344	338	682	295	283	578	282	255	537	2,326
1827	281	266	547	377	350	727	290	275	565	303	279	582	2,421
1828	280	263	543	401	371	772	294	301	595	323	301	624	2,534
1829	298	263	561	417	380	797	321	307	628	337	291	628	2,614
1830	269	258	527	432	397	829	315	314	629	344	293	637	2,622
1831	254	238	492	449	405	854	310	290	600	343	293	636*	2,582
1832	248	231	479	468	398	866	307	295	602	316	273	589	2,536
1833	233	208	446	411†	347	758	299	283	582	299	263	562	2,348
1834	222	194	416	403	359	762	328	289	617	317	259	576	2,371
1835	228	185	413	445	388	833	309	284	593	310	272	582	2,421
1836	226	180	406	443	387	830	305	276	581	307	267	574	2,391
1837	229	176	405	443	387	830	299	271	570	289	260	549	2,354
1838	216	161	377	434	386	820	266	264	530	275	269	544	2,271
1839	236	154	390	436	380	816	255	249	504	281	269	550	2,260
1840	249	172	421	428	381	809	255	247	502	293	279	572	2,304
			7,952			13,230			9,851			9,882	40,915

Average 2406½

* In this year the Infant School at Sachsenhausen was opened, and the attendances noted in the next year's total.

† In this year a Class was discontinued; but restored in 1835.

The Middle School stands, in respect to the compass and extent of the instruction it gives, between the Model and the rest of the popular schools. It has 10 instructors and 4 instructresses. Religion, reading, calligraphy, arithmetic, the German and French languages, natural history, geography, history, drawing, and singing; and in the female department needlework is taught.

The White Ladies' School, (Weissfrauen Schule,) so called from its being held in the convent of the former nuns, called White Ladies. It was opened in 1813, and until the year 1824 had the character of the present Middle School. It has 6 instructors and 3 instructresses.

All Saints' School (Allerheiliger Schule) has 6 teachers and 3 instructresses.

The Three Kings' School, (Die Drei-Königs' Schule,) in the suburb of Sachsenhausen, is so called from its proximity to the church dedicated to those mysterious personages so well known in German religious legends. It has 6 teachers and 3 instructresses.

In these 3 last popular schools, 2 of which have existed since 1824, the children are taught religion, reading, writing, German, arithmetic, singing, the understanding of natural objects, geography; and in the female department needlework. It is to be remarked, that in all of these schools singing is taught, and in the two first the French language; but in none is the English taught.

The Catholic schools are under the direction of the Church and School Commission.

The first is the boys' school in the Liebfrauen Kirche; it has 9 teachers, and is nearly on the same plan as the Middle School.

The female boarding school, by English ladies, for the daughters of persons of the middle classes, has 4 teachers and 3 instructresses. History, German, geography, natural history, singing, arithmetic, calligraphy, drawing, and needlework are taught.

The boys' school at the cathedral has 3 teachers, and is on the footing of the Protestant common school.

The girls' school of the Rosenberger Union has 2 teachers and 4 instructresses. The usual instruction of the common or popular schools is taught in this school. The school owes its origin and name to a widow of the name of Anna Rosenberg, who in 1452 founded a community or convent of the Dominican order, for 12 daughters or widows of Frankfort citizens. Religious instruction in all the Catholic schools is given by priests.

It will be observed, that in the Catholic schools, as in the Protestant, singing is taught in all of them. The French language is taught in one, and no mention is made of the English in any.

The institutions for the instruction of the Jewish community consists of a superior and common school. Both were established in 1804 by the philanthropy of private individuals; but at a later period the State raised them to the dignity of public schools. At present there are 12 classes in the superior school, namely, 5 for boys and 5 for girls, and 2 classes for girls and boys in common. The common school has two classes for girls and boys in common. In the two schools there are 17 teachers and 5 instructresses. The inspection of the schools is in the hands of 3 Jewish elders and of 5 members of the Jewish community, constituting a school council.

Besides the above public schools, there are several private institutions both for males and females, on a good footing, the number of scholars attending which are stated in the following tables. A school also for the deaf and dumb; two French schools; and many private tutors for teaching foreign languages; also places where gymnastic and other exercises are taught; and infant schools; and since the 21st May, 1832, the children of the poor, between the age of 2 and 6, are attended to.

TABLE XII.—Attendance of Pupils at Educational Schools, and those of the Fine Arts (Bildungsanstalten), during the Years 1839 and 1840.

	1839 As Numbers stood Jan. 1840.			1840 As Numbers stood Jan. 1841.		
	Number of Pupils.			Number of Pupils.		
	Males.	Fem.	Total.	Males.	Fem.	Total.
Städel's Institution for the cultivation of the Fine Arts:*						
a. Painting	21	..	21	22	..	22
b. Drawing and Modelling	110	..	110	95	..	95
c. Sculpture	27	..	27	4	..	4
d. Architecture	67	..	67	7	..	7
e. Copper-plate Engraving	6	..	6	8	..	8
Total . . . . .	..	..	231	..	..	136
Association for promoting the Useful Arts, and their Auxiliaries:—						
a. Sunday School for Operatives	312	..	312	180	..	180
b. Trade and Craft School	130	..	130	90	..	90
c. Reading Association † . . . . .	..	..	..	277	..	277
Institution for the Education of the Deaf and Dumb	4	6	10	6	7	13
Institution for the Education of the Blind	5	..	5	5	..	5
Ladies' Association School ‡ . . . . .	..	50	50	..	40	40
Orphan House	122	66	188	128	70	198
Infant School in Frankfort	96	56	152	73	88	161
Infant School in Sachsenhausen	108	92	200	100	100	200
Total	777	270	1,047	859	305	1,164

* Several of the pupils are enumerated under more than one head.
 † Including the Reading Association.
 ‡ In the year 1840 the Reading Association is separated from the Sunday School for Operatives.
 § Independently, in the year 1840, of 13 in the Charitable Institution.

TABLE XIII.—Attendance at Private Schools during the Years 1839 and 1840, in Frankfort; from a Report by Aug. Ravenstein.

	1839			1840		
	Numbers.			Numbers.		
	Males.	Fem.	Total.	Males.	Fem.	Total.
a. Boys' Educational Schools: those of Stallwag, Hassel, Fenner, Doctor Weil, Doctor Geison, and Behagbel.	325	..	325	408	..	408
b. Girls' Educational Schools: those of Behagbel, Bercht, Böning, Kiefhaber, Lehn, Rumpf, and Schmidt.	..	325	325	..	347	347
c. Other Private Schools:—						
Drawing Schools . . . . .	..	..	*40	..	..	*38
Strobel's Drawing School . . . . .	..	..	60	..	..	60
Gymnastic Institution	104	11	†115	66	6	†12
Total	429	336	865	474	353	925

* Of which number 12 are taught the arts of manufactures, and 4 engraving on copper.
 † This number is exclusive of 50 free scholars from the Orphan House. The attendance at the Gymnastic Institution varied according to the season. Summer of 1839 = 72; winter of 1838-9 = 53; summer of 1839 = 115; winter of 1839-40 = 66; summer of 1840 = 96; and winter of 1840-41 = 86.

TABLE XIV.—Summary of the Attendance of Pupils at all the Schools in Frankfort during the Years 1839 and 1840; from a Report by Aug. Ravenstein.

1839														
Number of Scholars in all the Schools, Public and Private.														
Public Schools.			Orphan Houses and Ladies' Association.			Private Schools.			Deaf, Dumb, and Blind Schools.			Total.		Grand Total.
M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	
2,323	1,866	4,189	122	116	238	335	325	660	9	6	15	2,789	2,313	5,102
1840														
2,332	1,907	4,239	128	110	238	408	347	755	11	7	18	2,779	2,471	5,250

Scientific and other Institutions.

TABLE XV.—Number of Members constituting the Literary, Scientific, and other Societies in Frankfort.

	1839					1840				
	Members.					Members.				
	Effective.	Honorary.	Subscribing.	Corresponding.	Total.	Effective.	Honorary.	Subscribing.	Corresponding.	Total.
Museum	372	19	117	..	508	233	15	163	..	411
Dr. Senkenberg's Natural Philosophy Society	43	256	384	..	683	42	227	..	404	673
Physical Society	161	25	63	19	268	180	25	..	19	224
Geographical Society	124	1	..	21	146	125	1	..	24	150
Society for the promotion of the Useful Arts, and their Auxiliaries	508	30	..	197	735	500	30	..	198	728
Reading Society*	314	..	..	..	314	290	..	..	..	290
Society of Arts † . . . . .	..	..	1154	..	1154	..	..	1121	..	1121
St. Cecilia Society, chiefly for Ancient and Sacred Music	139	7	..	..	146	108	40	..	..	148
The Song Garland Society	106	5	..	..	111	111	9	..	..	120
Instrumental Music Society	83	3	..	103	189	83	3	..	96	182
Ballad and Table Song Society	58	6	..	..	64	73	6	..	..	79
Orpheus Society	50	4	..	..	54	43	4	..	..	47
Vocal and Instrumental Music Society ‡	100	..	..	..	100	100	..	..	..	100
Total	2058	356	1718	340	4472	1888	360	1284	741	4273

* Divided into two classes: in 1839 there were 236 of first and 78 of second class; in 1840 there were 232 of first and 58 of second class.
 † This Society is divided into money shares.
 ‡ For church music, and most of the members are honorary.

The Museum, so called, was originally an association for cultivating arts and science; but latterly it has chiefly been distinguished for its encouragement of music. It meets in the winter, every 14 days.

The Museum of Natural History is not a State foundation, but is supported by an association of members. The collection is very good, particularly in osteology, and it owes very much of its present value to the zeal, ability, and generosity of the distinguished traveller, Dr. Edward Rüppell. With a liberality worthy of imitation elsewhere, this private institution is open to the public on Wednesdays and Fridays in each week.

Senkenberg's Natural Philosophy Society was founded and named in honour of the Doctor. Its library is open on Mondays and Fridays.

The Physical Society was founded in 1824. Its objects are researches in physics and chemistry, and it has a good cabinet and laboratory.

The Geographical Society has existed since June, 1836, and with it is associated a section for statistics. It possesses suitable books, maps, charts, and relief models.

The Society for the promotion of the Useful Arts, or the Polytechnic Society, had its origin in 1817, in the formation of a Sunday school for operatives, who were taught drawing, architectural drawing, geography, &c. To this in 1828 was added the school of arts, embracing algebra, geometry, and mechanics, taught in the evenings of week days, and on Sunday evenings. In winter a reading-room was open, from 5 to 8, for the associates and pupils. In 1822 a savings' bank resulted from the institution. Horticulture and agriculture are systematically encouraged. Exhibitions of produce take place, and prizes are given.

The Society of Arts was founded in 1835. It has its exhibition of objects of arts, and prizes are given either in medals or in honourable mention.

In 1835, a society was founded for encouraging morality and good conduct amongst servants, by the annual distribution of prizes to those who had served long and faithfully; and, in 1837, an institution for teaching the blind to read was established.

The Reading Society was founded in 1788. It is managed by 6 directors, and the society consists of 2 classes of fellows: citizens who pay 14 florins annually, and those not citizens, who pay 16 florins. It is open from 9 A.M. to 9 P.M.

The Musical Associations of Amateurs are numerous and excellent; and I heard Handel's unpublished oratorio of Solomon performed by 60 or 70 ladies, and 80 or 90 gentlemen, of the society of St. Cecilia, in a manner which certainly no private association in England could equal. The first of them—the society of St. Cecilia, (Der Cäcelien verein)—was projected by the deceased Scheble, in 1818. It gets up the master-pieces of religious music of Mozart, Bach, Handel, and Haydn.

The Song Garland Society (Der Lieder kranz) meets weekly in a private room, and strangers can be introduced by the members. Its object is part singing. From this body originated Mozart's Institution, in 1838, to assist musical talent in young persons, and, when the interest of their capital amounts to 2,000 florins per annum, to found a conservatory.

The Instrumental Music Society has the object indicated by its name. It commenced in 1834.

Of the other three societies—"Die Lieder tufel," "Der Orpheus," and "Der Vocal und Instrumental musickverein," the first is for glees and table songs, and the other two for vocal and instrumental music.

Charitable Institutions.

TABLE XVI.—Statistics of the Hospital of the Holy Ghost.

Years.	Admitted.		Discharged Cured.		Discharged not Cured.		Died.		Per Centage of Deaths, Men.	Per Centage of Deaths, Women.	Per Centage of Deaths, Men and Women.
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.			
1834	709	654	590	533	35	32	48	39	6.77	5.96	6.38
1835	699	736	574	595	32	32	45	29	6.58	3.95	5.16
1836	1,011	795	842	704	42	20	62	44	6.13	5.53	5.86
1837	909	733	777	615	30	38	60	32	6.60	4.36	5.60
1838	1,001	885	812	740	52	37	60	36	5.99	4.07	5.08
1839	999	833	832	695	39	25	68	41	6.50	4.92	5.94
1840	930	832	748	677	48	32	62	43	6.66	5.16	5.99
1841	918	878	753	745	52	50	53	26	5.77	2.96	4.39
1842	962	890	770	729	89	58	38	28	3.95	3.14	3.56
1843	952	833	787	642	56	69	54	40	5.67	4.80	5.26
Total .	9,090	8,069	7,485	6,675	475	393	550	358	6.05	4.43	5.29
Annual Averages }	909.0	806.9	748.5	667.5	47.5	39.3	55.0	35.8			

The following are the hospitals:—

Senkenberg's Citizen and Sojourners' Hospital. This was founded by Dr. Senkenberg, who in his will of the 18th August, 1763, left a large sum for the establishment of two institutions, a hospital and a school of medicine and anatomy; one-third of the sum to the former, and two-ninths to the latter. The hospital is for the reception of Christian citizens and sojourners, and in the lapse of time has been considerably enriched by donations, particularly from Simon Moriz von Bethmann, and Peter Meermann, and Madame Anna Elizabeth Klots. The interior management is truly a pattern; it makes up 110 beds. The noble founder, alas! did not live to see the completion of his work, for on the 15th November, 1772, a fall from the entablature of the well-nigh finished building closed his career. With this foundation is joined a bequest of 100,000 florins, from the senator John Charles Bröner, for the constant support of 6 old unencumbered citizens, incapable of work, who are to spend the rest of their days in peace and comfort, as residents in the hospital. A botanical garden is attached to the hospital, in which is the tomb of the founder. Under the same roof is the Senkenberg Natural History Society.

The hospital of the Holy Ghost is intended for sick Christian strangers, either domestics or operatives employed by the citizens, or sojourners. The hospital has been known since the 12th century; but the present building is modern, large, and handsome. The English servants of English resident families are received into the hospital, and a trifling daily sum is paid for their support. It can make up from 280 to 300 beds.

The present building of the Hospital for Lunatics (Das Jerrenhaus) owes its origin to a donation of 20,000 florins from the poor-box, and its continued support to the same source. It has a very good sleeping ward, and a suitable garden.

The Hospital for Epileptics forms part of the Lunatic Hospital.

There is also a Lock Hospital, under the inspection of the police; and a Military Hospital for the garrison, of 80 to 90 beds.

The Jews have a hospital for their sick, on a very good footing, with separate wards for males and females. The Rothschild family have been, and are, great contributors to this, as to other institutions for the Jews.

The general or common Poor-Box (Der allgemeine all mosen kasten) was founded in 1428, by the priest John Weissbender. Ten years later John von Holzhausen, and, subsequently, others, increased its funds by gifts, in money and in lands and rents. The executive committee distribute yearly in the 14 quarters of the town a large quantity of bread and work, besides ready money, which amounts to more than 50,000 florins (4,170*l.*) Its charity is carried to the doors of the humble poor; and the very large expenditure is kept up by legacies, and free contributions on Sundays at the Evangelical churches. Considerable though these may be, they are frequently insufficient, and the City Chest has to assist largely. Independently of the common Poor-Box, each religious community has a poor-box for its own poor; and so well are they kept from being a public spectacle and annoyance, that I must do Frankfort administration the justice to say, that during my residence of 7 months in the winter and spring of 1843-44, I never was accosted but once in the streets for charity. Each of the 14 quarters has its committee, who examine into every individual case, and prevent fraud and idleness.

Police and Criminal Courts.

The following tables are copied from official returns in the police offices; for which purpose a German friend was good enough to employ and pay a competent copyist. The table as a whole is satisfactory, although it may not quite support the impressions of some with respect to the comparative unsophistication of German habits and manners. Offences not of a criminal nature have progressively increased from 1,185 in 1840, to 1,523 in 1843. In the first year about every 56th person passed through the hands of the police; and in the last year about every 43rd person. The average annual offences not criminal is 1,347, which gives about one offence to every 49 inhabitants. Frankfort, however, has above 100 per cent. the advantage of London; where it is found that about 1 in 22 of the inhabitants passes through the police courts, chiefly, however, for drunkenness, or brawls consequent upon drinking; while in the Frankfort table there is not any entry at all of drunkenness as an offence. The two chief offences in the table are "larceny," and "quarrels, disputes, brawls." The former class of offences appears to have increased progressively and considerably, not only in the city, but in the dependent villages; for the trespasses for the most part seem to be for petty depredations, while the second class of offences, quarrels, &c., have gradually diminished. The

Germans have the characteristics of a good-humoured people, and I am somewhat surprised to find the instances of brawls and insults so numerous.

Analysis of all the Investigations and Trials, which came before the Court of Police at Frankfort during the years 1840, 1841, 1842, and 1843, after the Statute of December 15th, 1835.

	Number of Cases.				
	1840	1841	1842	1843	Total.
I. Offences against property, larceny, &c..	281	320	374	389	1,364
II. Offences against the health of the inhabitants	58	58	47	46	209
III. Offences against public morals, modesty, namely debauchery, bullying, and concubinage	8	7	17	5	37
IV. Offences against religion.	..	..	..	..	..
V. Real insults, as fighting in the streets, house disturbances, and domestic brawls	212	165	171	146	694
VI. Verbal insults	49	45	51	30	175
VII. Injuries on public property and tearing up of court seals, &c. &c.	4	5	..	2	11
VIII. Assistance to prisoners in escaping from the custody of the police	..	..	..	..	..
IX. Interruption of public pleasures.	..	..	..	..	..
X. Offences against the censorship (laws of the press)	7	13	6	4	30
XI. Prohibited societies and meetings	..	..	..	..	..
XII. Other different offences against the public peace by dangerous threatening, &c.	6	9	3	5	23
XIII. Cruelty to animals	2	3	4	5	14
Besides these cases the police court discharged trifling offences	274	354	390	473	1,491
In the 8 villages belonging to the free City of Frankfort there were brought before the magistrates the following cases of trespasses over gardens and fields, and stealing fish.	258	271	273	286	1,088
Requisitions of foreign governments were made for the apprehension of offenders.	26	31	64	132	253
Total	1,185	1,281	1,400	1,523	5,389

The paucity of offences against public property cannot fail to strike the attention, surrounded as the city is by beautiful public gardens and promenades. Offences of the press in this free state indicate that the office of censor is not an entire sinecure.

The report of the criminal court is certainly favourable as far as offences against the person go. I have elsewhere mentioned, upon verbal authority, however, that there has been but one execution for murder in Frankfort for the last 60 years; and the report shows that there are only 3 cases of supposed assassination, and 19 cases of wounding in 4 years. The Frankforters are evidently averse from shedding blood. The number of suicides 68, and attempts at suicide 13, in 4 years, considerably surprised me, for the people are neither excitable nor nervous, and they are less exposed to those extreme cases of destitution which prompt to suicide in London.

If, however, offences against the person exhibits a favourable picture, those against property are not equally so. The number of cases of robbery, both with and without housebreaking, shows that the system of watch and ward needs some improvement. The other offences against property are few in number, and unimportant; but fires, supposed incendiary, are noticed.

Reports of the Criminal Courts.

	Number of Cases.				
	1840	1841	1842	1843	Total
I. Crimes against the Lives and Safety of the Inhabitants.					
1. Assassinations . . . . .	..	1	..	2	3
2. Suspected assassinations . . . . .	..	..	1	..	1
3. Suicides	17	14	18	19	68
4. Attempts at suicide	3	8	2	..	13
5. Suspected rapes . . . . .	..	2	..	..	2
6. Wounding	4	5	4	6	19
7. Debauchery with children	1	2	2	..	5
8. Suspected attempt at poisoning	2	1	1	..	4
9. Dead children found	3	2	..	..	5
10. Exposition of new-born children	1	1	1	..	3
11. Suspected abortions	3	1	1	..	5
12. Concealed pregnancy and accouchements	1	1	..	..	2
13. Insolence against the magistrates . . . . .	..	..	1	..	1
14. Perjury . . . . .	..	1	2	..	3
15. False depositions of witnesses . . . . .	..	1	..	..	1
16. Deaths through being run over	1	..	..	1	2
17. Dangerously using guns	1	..	1	..	2
18. Suspicion of attempting sodomy	1	..	..	..	1
Total	38	40	34	28	140
II. Crimes against Property.					
1. Highway robbery . . . . .	..	..	..	1	1
2. Robbery without housebreaking (above 100 florins).	36	50	34	34	154
3. Robbery with housebreaking	52	33	14	42	141
4. Receivers of stolen goods	9	..	13	14	36
5. Issuing false money . . . . .	..	1	..	..	1
6. Coining . . . . .	..	..	1	..	1
7. Forgery of Prussian bank notes . . . . .	..	..	1	..	1
8. Embezzlements	2	5	4	..	11
9. Swindling (above 100 florins)	2	2	5	5	14
10. Fraudulent borrowing . . . . .	..	2	..	..	2
11. Forgery . . . . .	..	1	1	..	2
12. Gambling . . . . .	..	1	..	..	1
13. Suspected incendiarism	1	1	1	..	3
Total	102	96	74	96	368

I have already stated that the prices of all provisions are fixed by the police once a fortnight; and as the means and comforts of a people can best be appreciated by the quantity they can get for their money, I subjoin one of the official prices tax proclamations, from 29th February to 13th March, 1844:—

	Weight.		Prices.	
	lbs.	oz.	Kreutzers.	Hellers.
<i>Bread:—Price and Weight.</i>				
Rye bread, second sort	4	..	12	..
Ditto ditto	2	..	6	..
Ditto ditto	1	1	3	..
Ditto first sort	6	..	19	2
Ditto ditto	3	..	9	3
Wheat, or, so called, priests' bread	1	26	8	..
Ditto ditto . . . . .	..	29	4	..
Ditto ditto . . . . .	..	14½	2	..
Ditto ditto . . . . .	..	7½	1	..
Milk bread . . . . .	..	4¾	3	..
The inhabitants of the 8 villages who bring their bread for sale in the town market are obliged to sell at a cheaper rate; for instance:—				
Rye bread, second sort	4	..	11	..
Ditto first sort	6	..	18	2
<i>Prices of Meat.</i>				
Beef per lb. of 16 ounces English			13	1
Veal ditto ditto			11	1
Mutton ditto ditto			12	1
Pork ditto ditto			13	1

Beef and pork, therefore, are about 4½d. English per lb.; veal not quite 4d.; and mutton 4d. The butcher is obliged to add ½ an ounce (loth) to each lb.

Beer is 8 kreutzers the mug, or quart.

The price of flour per sack of 135 lbs. varies from 13 florins 8 kreutzers, to 6 florins 34 kreutzers, according to quality and the quantity of bran left in.

Rye flour 7 florins 59 kreutzers per sack.

In the same way the price of corn, hay, and straw, &c., is fixed.

The florin is 1s. 8d.; the kreutzer ½ of a penny; and the heller ¼ of a penny English.

Railroad.

It would scarcely be right to omit all mention of a public undertaking which is very creditable to Frankfort, not only for the manner in which it is managed, and the accommodation assured to the public, but to the cheapness of transit for individuals. It was commenced in 1837, and runs through three states, although only 43,350 metres long, from Frankfort viâ Kastel, to Bieberich. Hesse got 88,263 florins for its share of the ground, Nassau 327,813 florins, and Frankfort paid 93,497. The total cost of the ground was 523,623 florins; the buildings and construction 2,065,256 florins; the locomotives 495,207 florins; and at the end of 1840 there were 8 engines, 80 carriages, and 21 transport waggons in use. The cost of the administration 58,242 florins, which appears singularly economical. There are 4 classes of payers, the whole distance from Frankfort to Weisbaden being 2 florins 42 kreutzers; 1 florin 48 kreutzers; 1 florin 15 kreutzers; and 51 kreutzers. In the year 1839 the persons who passed were 61,766, and the money received 16,464 florins. In 1840 the numbers were 658,564 persons, and the receipts 338,374 florins: the outlay for 1840 was 140,787 florins. The whole

outlay from 1837 to 1840, including the 3,000,000 of capital, in 12,000 shares of 250 florins each, was 3,491,059 florins; and the whole outlay, including dividends and a balance of 74,795 florins, at the end of 1840, amounted to the same sum. Public confidence fluctuated exceedingly from 1837 to 1840—the 100 florin shares varying from 164 in May, 1837, to 103 in January, 1839. In December, 1840, the 100 florin share had risen to 131; and it is progressively increasing, and in February, 1844, it was nearly 148 florins.

I have now exhibited a statistical picture, in which the social body is portrayed as a piece of mechanism, the several parts of which are to perform their respective functions according to the laws prescribed for their operation: there is not to be any increase nor any diminution of action; nothing is to go out of its course. There is no doubt, a community so acting mechanically is free from many of those evils to which the unimpeded industry, speculation, and impulses of men give rise. There are few great crimes; indeed, there has been but one execution in Frankfort (for murder) since 1793; comparatively few offences against persons and property; no external and offensive indications of pauperism; immorality is veiled from the public eye; and a general appearance of well-being seems to obtain. But there is no progress; man in his social relations is at a stand-still; the past is the present, and the present is the future, both for the state and its citizens. No doubt such a state of things exhibits a certain amount of good, which may constitute an Utopia for the money-changer, the bill-broker, the commission agent, and even the merchant and banker; but which must be abhorrent to the lofty aspirations of the philosopher, the philanthropist, and the statesman, who look confidently to gradual amelioration in the moral, intellectual, and physical condition of men, societies, and states.

PROCEEDINGS OF THE STATISTICAL SOCIETY OF LONDON.

First Ordinary Meeting, 1844-45, Monday, 18th November, 1844.

Lieut.-Colonel SYKES, V.P., in the Chair.

The following gentlemen were elected:—

Julius Jeffreys, Esq.	|	Gregory Seale Walter, Esq.
B. Smith, Esq., M.P.	|	A. A. Knox, Esq.

The following gentlemen were proposed as candidates for admission into the Society:—

John Bright, Esq., M.P.	|	Arthur Parish, Esq., B.A.
James Blyth, Esq.	|	Major-General John Briggs, F.R.S.

Thomas Tooke, Esq., V.P., announced to the meeting the titles of the papers read before the Statistical Section of the meeting of the British Association for the advancement of Science at York.

A paper by Dr. Balfour, of the Grenadier Guards, was read, entitled, "A Comparison of the Sickness, Mortality, and prevailing Diseases among Seamen and Soldiers, as shown by the Naval and Military Statistical Report."

PERIODICAL TABLES.

The following set of Tables for the Quarter ended 30th September, 1844, is characterized by some omissions which require explanation. In the Table showing the "Mortality" of the country at large, the columns showing the number of deaths registered annually, in each district, in the several years from 1838 to 1843 inclusive, are omitted, but they will be found already entered in Part III., p. 271. The Table of the "Prices of Provisions, Fuel, &c." is omitted, because few of the returns from which it had to be abstracted, were received at the office of the Poor Law Commissioners at the date of our sending the rest to press. The abrupt termination of the "Currency" Tables is caused by the provisions of the Act of the last Session (6 and 7 Vic. c. 32) requiring the issue of such returns only as do not supply the means of continuing them in their present form. In the next number they will be recommenced from the date of their termination, in the form enforced by the recent changes.

BILLS OF MORTALITY.

"The quarterly returns are obtained from 115 districts, sub-divided into 576 Sub-districts. Thirty-four districts are placed under the metropolis, and the remaining 81 districts comprise, with some agricultural districts, the principal towns and cities of England. The population was 6,578,912 in 1841."

The deaths registered in the last quarter (ending September 30th) were 38,784; or 141 less than the deaths (38,925) in the June quarter; and 1701 more than 37,083, the average of five previous September quarters. Allowing for the increase of population, the mortality will be found to be about the average of the summer quarter, (July, August, September); that quarter being now the least fatal in the year.

The deaths in the Metropolis amounted to 11,825; which are 354 more than were registered in the spring quarter, and 694 above the average uncorrected for the increase of population. *Small-pox* and *Scarlatina* were both epidemic. The deaths from *Small-pox* in the first week of the quarter were 36, in the last 37; from *Scarlatina* 58 in the first week, 85 in the last, and 99 in the tenth. *Measles* was fatal but to a small extent; *Typhus* showed a tendency to increase, for the deaths from this disease, including what is sometimes called "common continued fever," and "fever," amounted to 424; while the average is 352.

In the country districts the most remarkable increase of mortality occurred in Cornwall; in the Redruth and Penzance districts the following were the results of registration:—

	Average Annual Deaths in 3 Summer Quarters.	Deaths in the last Quarter.
Redruth	218	419
Penzance	216	475

Measles and *Hooping Cough* prevailed in both the districts. *Small-pox* has been epidemic in many districts all over the kingdom, and has proved fatal to great numbers, whose vaccination had been neglected.

The return includes the deaths of nine persons who were suffocated or trampled to death at Nottingham, whilst witnessing a public execution. At Stockport six persons were accidentally killed by the falling of a wall during a heavy storm of rain.

The mean temperature at the Royal Observatory, Greenwich, was 58°·9, or 2° lower than the mean temperature of Greenwich on an average of twenty-five years. The mean of the highest temperature of day was 66°·9, the mean of the lowest temperature of night 51°·4; the difference 15°·5. The highest temperature attained in the sun was 115° in the week ending July 27th; the lowest temperature on the grass in the same week was 40°·5; the temperature of the air ranged in the same week from 85°·1 to 53°·7. In the 13 weeks the lowest temperature of the air was 40°·6; of the grass on the ground 30°·0. The difference between the dew point and air temperature was 5°·3. The fall of rain was 5·38 inches.

Districts in which the Mortality was GREATER than the mean mortality of the corresponding quarter in the same district.—The west, north, and south district of the Metropolis, Portsea Island, St. Albans, Wycombe, Bedford, Colchester, Plymouth, Redruth, Penzance, Stroud, Hereford, Shrewsbury, Kidderminster, Wolverhampton, Birmingham, Aston, Coventry, Nottingham, Liverpool, West Derby, Blackburn, Chorlton, Bradford, Merthyr-Tydfil.

Districts in which the Mortality was less than the average Mortality of the corresponding quarter in the same districts.—Central districts of the metropolis, Norwich, Devizes, Exeter, Basford, Stockport, Macclesfield, Great Boughton, Bury, Prescott, Salford, Ashton, Sheffield, Hull, Sunderland, Tynemouth, Newcastle-on-Tyne, Pontypool, Wrexham.

MORTALITY OF THE COUNTRY.

Quarterly Table of the Mortality in 115 of the Districts of England (including the principal Towns) showing the Number of Deaths registered in the Six Years, the Average Number of Deaths in the Five Summers, 1838-42, and the Number of Deaths in the Summer Quarter of 1844, ending 30th September—(continued from p. 272.)

DISTRICTS.	Population 1841.	1838-42		Deaths in the Summer Quarter ending Sept. 30 1844.	DISTRICTS.	Population 1841.	1838-42		Deaths in the Summer Quarter ending Sept. 30 1844.
		Quartly. Average†	Of Five Years.				Of Five Summs.	Quartly. Average†		Of Five Years.	Of Five Summs.
<i>Metropolis.*</i>					<i>North Midland Division.</i>				
West Districts	301,326	1,751	1,617	1,822	Leicester . . .	50,932	350	312	339
North Districts	366,303	2,112	1,966	2,293	Lincoln . . .	36,110	184	159	143
Central Districts	371,759	2,395	2,238	2,190	Nottingham . . .	53,030	361	366	394
East Districts	303,247	2,640	2,567	2,517	Basford . . .	59,634	310	266	233
South Districts	479,469	2,850	2,632	2,973	Derby . . .	35,015	217	196	200
Total . . .	1,915,104	11,749	11,020	11,825	<i>North Western Division.</i>				
<i>South Eastern Division.</i>					Stockport . . .	85,672	585	505	462
Maidstone . . .	33,210	181	161	160	Macclesfield . . .	56,018	370	307	283
Brighton . . .	46,742	251	254	233	Great Bough- ton (including Chester) . . .	49,085	305	253	203
Isle of Wight . . .	42,547	182	170	187	Liverpool . . .	223,054	1,875	1,830	1,945
Portsea Island . . .	53,036	297	272	345	West Derby (adjoining Liverpool) . . .	83,652	509	493	602
Winchester . . .	23,044	116	117	100	Blackburn . . .	75,091	465	331	474
Windsor . . .	20,592	97	83	99	Preston . . .	77,189	513	424	450
<i>South Midland Division.</i>					Rochdale . . .	60,577	396	325	316
St. Albans . . .	17,051	83	74	100	Bury . . .	77,496	506	405	380
Wycombe . . .	34,150	187	163	180	Bolton . . .	97,519	668	559	534
Oxford . . .	19,701	102	96	90	Wigan . . .	66,032	434	357	353
Northampton . . .	23,103	163	157	162	Prescott . . .	43,739	260	213	174
Bedford . . .	31,767	171	146	175	Chorlton . . .	93,736	591	593	653
Cambridge . . .	24,453	144	134	133	Manchester . . .	192,408	1,597	1,462	1,441
<i>Eastern Division.</i>					Salford . . .	70,228	530	501	417
Colchester . . .	17,790	113	106	124	Ashton . . .	173,964	1,196	1,008	918
Ipswich . . .	25,254	150	144	135	<i>York Division.</i>				
Norwich . . .	61,846	396	363	306	Sheffield . . .	85,076	598	530	494
Yarmouth . . .	24,031	118	117	115	Huddersfield . . .	107,140	514	460	447
<i>South Western Division.</i>					Halifax . . .	109,175	566	474	458
Devizes . . .	22,130	115	99	84	Bradford . . .	132,164	794	723	861
Dorchester . . .	23,390	107	88	99	Leeds . . .	168,667	1,107	1,042	997
Exeter . . .	31,333	192	190	160	Hull . . .	41,130	289	234	247
St. Thomas . . .	47,105	214	202	208	York . . .	47,779	274	243	247
Plymouth . . .	36,527	203	201	257	<i>Northern Division.</i>				
Redruth . . .	48,062	249	218	419	Sunderland . . .	56,226	369	353	267
Penzance . . .	50,100	236	216	475	Gateshead . . .	38,747	238	229	223
Bath . . .	69,232	423	370	361	Tyne-mouth . . .	55,625	315	296	242
<i>Western Division.</i>					Newcastle-on- Tyne . . .	71,850	497	485	414
Bristol . . .	64,298	476	429	435	Carlisle . . .	36,084	213	162	165
Clifton . . .	66,233	362	333	350	Cockermouth . . .	35,476	173	152	146
Stroud . . .	38,920	192	154	184	Kendal . . .	34,694	184	162	154
Cheltenham . . .	40,221	221	196	191	<i>Welsh Division.</i>				
Hereford . . .	33,646	188	165	197	Abergavenny . . .	50,831	315	260	244
Shrewsbury . . .	21,529	137	118	109	Pont-y-pool . . .	25,037	147	123	97
Worcester . . .	27,130	171	162	167	Merthyr Tydvil . . .	52,864	343	283	397
Kidderminster . . .	29,408	149	122	167	Newtown . . .	25,938	129	114	101
Dudley . . .	66,028	515	450	466	Wrexham . . .	39,542	217	185	159
Walsall . . .	34,274	202	170	163	Holywell . . .	40,787	204	162	177
Wolverhampton . . .	80,722	508	437	526	Anglesey . . .	33,105	154	126	122
Wolstanton . . .	32,669	203	189	169	Total exclu- sive of the Metropolis	4,663,803	29,049	26,063	26,959
Birmingham . . .	138,187	901	876	932	Grand Total	6,578,912	40,798	37,083	33,784
Aston . . .	50,923	279	275	317					
Coventry . . .	31,024	191	176	231					

* The deaths in the Metropolis for the years 1840-1-2 have been derived from the weekly tables, the Returns for each year comprising 52 weeks, or 364 days. The last quarter in the metropolis ended Sept. 23, 1844. The returns from other places are for the years ending December 31, and the quarter ending Sept. 30.
† Wandsworth District is included in the return for the Metropolis.

MORTALITY OF THE METROPOLIS.

A Table of the Mortality in the Metropolis, showing the Number of Deaths from all Causes, registered in the 13 Weeks ending 28th September, 1844.

CAUSES OF DEATH.	Quarterly Average of Deaths in the Five Summers of 1839-43.	Deaths in the Summer Quarter ending Sept. 28, 1844.	CAUSES OF DEATH.	Quarterly Average of Deaths in the Five Summers of 1839-43.	Deaths in the Summer Quarter ending Sept. 28, 1844.
ALL CAUSES	11,131	11,825	III. Cephalitis	156	164
SPECIFIED CAUSES	11,083	11,797	Hydrocephalus	475	413
I. Zymotic (or Epidemic, En- demic, and Contagious) Diseases	2,357	3,243	Apoplexy	197	237
SPORADIC DISEASES.			Paralysis	163	166
II. Dropsy, Cancer, and other Diseases of uncertain or variable Seat	1,312	1,239	Convulsions	781	721
III. Diseases of the Brain, Spi- nal Marrow, Nerves, and Senses	1,968	1,929	Tetanus	4	9
IV. Diseases of the Lungs and of the other Organs of Respiration	2,834	2,782	Chorea	4	2
V. Diseases of the Heart and Blood Vessels	235	326	Epilepsy	41	54
VI. Diseases of the Stomach, Liver, and other Organs of Digestion	1,085	1,027	Insanity	11	19
VII. Diseases of the Kidneys, &c.	63	90	Delirium Tremens	23	22
VIII. Childbirth, Diseases of the Uterus, &c.	105	124	Disease of Brain, &c	112	122
IX. Rheumatism, Diseases of the Bones, Joints, &c.	65	84	Laryngitis	6	7
X. Diseases of the Skin, Cel- lular Tissue, &c.	15	12	Quinsey	21	32
XI. Old Age	686	648	Bronchitis	73	140
XII. Violence, Privation, and Intemperance	303	293	Pleurisy	15	23
			Pneumonia	656	617
			Hydrothorax	41	38
			Asthma	113	104
			Phthisis or Consumption	1,833	1,681
			Disease of Lungs, &c.	126	140
			V. Pericarditis	8	23
			Aneurism	8	8
			Disease of Heart, &c.	218	290
			VI. Teething	301	233
			Gastritis	15	15
			Enteritis	353	264
			Peritonitis	14	26
			Tabes Mesenterica	84	136
			Worms	6	6
			Ascites	11	27
			Ulceration (of Intestines, &c.)	23	18
			Hernia	17	20
			Colic or Ileus	26	37
			Intussusception	9	3
			Stricture	7	5
			Hæmatemesis	6	13
			Disease of Stomach, &c.	66	86
			Disease of Pancreas	4	..
			Hepatitis	17	21
			Jaundice	29	23
			Disease of Liver, &c.	113	89
			Disease of Spleen	3	..
			VII. Nephritis	4	5
			Ischuria	2	..
			Diabetes	4	2
			Cystitis	3	3
			Stone	8	7
			Stricture	5	17
			Disease of Kidneys, &c.	36	56
			VIII. Childbirth	71	82
			Paramenia	2	1
			Ovarium Dropsy	5	3
			Disease of Uterus, &c.	27	33
			IX. Arthritis	6	1
			Rheumatism	30	31
			Disease of Joints, &c.	35	52
			X. Carbuncle	1	1
			Phlegmon	4	1
			Ulcer	4	1
			Fistula	4	3
			Disease of Skin, &c.	5	6
			XI. Old Age	686	648
			XII. Intemperance	11	8
			Privation	5	3
			Violent Deaths	292	282
			Causes not specified	47	23

QUARTERLY METEOROLOGICAL TABLE, Compiled from the Weekly Tables furnished to the Registrar-General by the Astronomer Royal.

Table with columns for 1844 Week ending, Phases of the Moon, Mean height of the Barometer, Thermometers (Mean, Dew Point, Self-Registering), Difference between dew point and air temperature, Wind (General direction, Pressure, etc.), and Deaths from various causes (Small Pox, Measles, etc.).

* The ages of 9 persons were not specified in the Table. † Inquests are held on violent and sudden deaths, which are returned irregularly.

REVENUE.

An Abstract of the Net Produce of the Revenue of Great Britain, in the Quarters and Years ended 10th October, 1843 and 1844; showing the Increase or Decrease thereof.—(Continued from p. 277.)

Table showing Revenue Sources for Quarters ended 10th October, 1843 and 1844. Categories include Customs (Consolidated Duties, Sugar Duty, etc.), Excise, Stamps, Taxes, Property Tax, Post-Office, Crown Lands, and Miscellaneous. Total Ordinary Revenue and Total Income are also shown.

Table showing Revenue Sources for Years ended 10th October, 1843 and 1844. Categories include Customs, Excise, Stamps, Taxes, Property Tax, Post-Office, Crown Lands, and Miscellaneous. Total Ordinary Revenue and Total Income are also shown.

CORN.

Average Prices of Corn per Imperial Quarter in England and Wales, with the Rate of Duty on Foreign and Colonial Wheat, during each Week of the Third Quarter of 1844; together with the Average Prices for the whole Quarter.—(Continued from p. 278.)

Returns received at the Corn Office, 1844.	Wheat.		Barley.	Oats.	Rye.	Beans.	Peas.	Date of Certificates of preceding Prices, regulating Duties for the Week ensuing.	Duties on Wheat per Quarter.	
	Weekly Average.	Aggregate Average of Six Weeks regulating Duty.	Weekly Average.	Weekly Average.	Weekly Average.	Weekly Average.	Weekly Average.		From Foreign Countries.	From British Possessions out of Europe.
Weeks ended 1844	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.		s. d.	s. d.
July 6 . . .	55 8	55 8	34 5	22 11	35 0	33 2	36 6	July 11	17 0	4 0
13 . . .	54 10	55 6	34 10	22 3	34 2	37 8	37 3	18	17 0	4 0
20 . . .	54 1	55 3	34 5	21 5	36 4	37 7	37 3	25	17 0	4 0
27 . . .	52 9	54 9	34 2	20 10	33 9	37 1	37 4	31	18 0	5 0
Aug. 3 . . .	51 0	54 0	34 0	20 3	37 6	34 7	36 5	Aug. 7	18 0	5 0
10 . . .	48 10	52 10	34 6	20 1	35 9	35 0	34 2	14	18 0	5 0
17 . . .	49 1	51 9	34 6	20 0	35 11	35 7	33 7	21	19 0	5 0
24 . . .	50 4	51 0	33 3	20 4	36 8	35 10	34 0	28	19 0	5 0
31 . . .	50 11	50 6	34 11	20 7	34 2	37 0	33 10	Sept. 4	20 0	5 0
Sept. 7 . . .	48 6	49 9	35 9	20 5	34 4	33 1	33 10	11	20 0	5 0
14 . . .	45 11	48 11	35 11	20 1	35 9	37 9	34 6	18	20 0	5 0
21 . . .	45 3	48 4	35 6	20 5	35 7	37 3	33 1	25	20 0	5 0
28 . . .	45 9	47 9	34 5	20 5	37 3	36 8	33 0	Oct. 1	20 0	5 0
Average of the Quarter	50 2	..	34 7	20 9	35 6	36 9	34 11	..	..	..

Foreign and Colonial Wheat and Wheat-Flour Imported in each of the Months ended 5th July, 5th August, and 5th September, 1844; the Quantities upon which Duties have been paid for Home Consumption during the same Months; and the Quantities remaining in Bond at the close of them.—(Continued from p. 278.)

Months ended	WHEAT.								
	Imported.			Paid Duty.			In Bond at the Month's end.		
	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.
1844	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
5th July . . .	221,762	3,032	224,794	77,946	3,032	80,978	549,106	119	549,225
5th Aug. . . .	166,853	14,331	181,184	351,586	14,331	365,917	351,430	119	351,549
5th Sept. . . .	125,671	7,270	132,941	137,341	6,772	144,113	330,274	618	330,892

WHEAT FLOUR.

Months ended	WHEAT FLOUR.								
	Imported.			Paid Duty.			In Bond at the Month's end.		
	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.
1844	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
5th July . . .	3,768	25,661	29,429	675	27,119	27,794	189,457	2,648	192,105
5th Aug. . . .	39,669	209,845	249,514	5,098	209,783	214,881	212,867	2,709	215,576
5th Sept. . . .	73,921	142,207	216,128	13,379	138,520	151,899	263,063	6,895	269,958

CURRENCY.

Quarterly Average of the Weekly Liabilities and Assets of the Bank of England, in the Quarters ended 13th July, 10th August, and 10th September, 1844; and in the corresponding Quarters of the preceding Year.—(Continued from p. 279.)

Quarters ended	LIABILITIES.			ASSETS.		
	Circulation.	Deposits.	Total.	Securities.	Bullion.	Total.
1844.	£.	£.	£.	£.	£.	£.
13th July . . .	21,246,000	13,977,000	35,223,000	22,471,000	15,767,000	38,238,000
10th August . . .	21,324,000	14,090,000	35,414,000	22,903,000	15,579,000	38,487,000
10th September . . .	See Explanatory Note at page 361.					
1843.						
15th July . . .	19,280,000	10,724,000	30,004,000	21,462,000	11,615,000	33,077,000
12th August . . .	19,358,000	11,218,000	30,576,000	21,890,000	11,820,000	33,710,000
9th September . . .	19,496,000	11,727,000	31,223,000	22,394,000	12,018,000	34,412,000

Average Aggregate Amount of Promissory Notes which have been in Circulation in the United Kingdom, distinguishing the several Banks, or Classes of Banks, by which issued in each part of the Kingdom, with the Average Amount of Bullion in the Bank of England, during the four weeks ended the 20th July, 17th August, and 14th September, respectively.—(Continued from p. 279.)

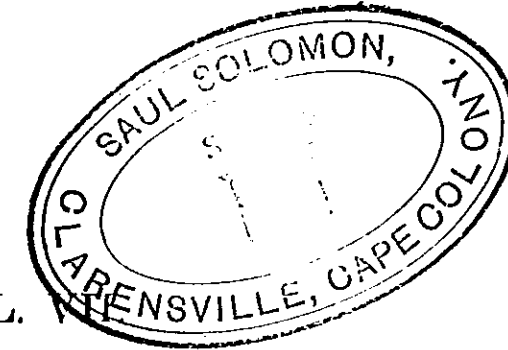
Banks.	Circulation during the Four Weeks ended		
	20th July, 1844.	17th Aug. 1844.	14th Sept. 1844.
	£.	£.	£.
England—Bank of England . . .	21,448,000	21,980,000	See p. 361
Private Banks . . .	4,624,179	4,550,353	4,338,569
Joint-Stock Banks . . .	3,340,326	3,204,460	3,158,290
Scotland—Chartered Private & Joint-Stock Banks . . .	2,903,322	2,894,853	2,940,456
Ireland—Bank of Ireland . . .	3,440,700	3,378,125	3,359,150
Private and Joint-Stock Banks . . .	1,974,284	1,993,533	2,052,262
Total . . .	37,730,811	38,001,324	15,848,727
Bullion in the Bank of England	15,485,000	15,227,000	See p. 361

Consolidated Fund Operations.—The total income brought to this account in the quarter ended 10th October, 1844, was 12,904,541*l.*; the total charge upon it was 8,308,906*l.*, leaving a surplus of 4,595,635*l.* The amount of Exchequer Bills issued to meet the charge on the Consolidated Fund for the quarter ended 5th July, 1844, and paid off out of the growing produce of that fund for the quarter ended 10th October, 1844, after deducting 500,000*l.* paid off out of the Sinking Fund, was 4,200,895*l.* The surplus of the Consolidated Fund, quarter ended 10th October, 1844, was 1,672,182*l.*; and the probable amount of Exchequer Bills required to meet the charge on the Consolidated Fund, quarter ended October 10th, 1844, was 2,528,263*l.*

BANKRUPTCY.

An Analysis of the Bankruptcies in England and Wales, gazetted in each Month of the Quarter ended September 30, 1844; showing the Counties and Branches of Industry in which they have occurred. (Continued from p. 280.)

COUNTIES.	TRADES.			COUNTIES.		
	July.	August.	September.	July.	August.	September.
Metropolis				<i>Agriculture and connected Trades.</i>		
Bedford					1	1
Berks						
Bucks						
Cambridge				3	1	2
Cheshire					2	2
Cornwall						
Cumberland					1	1
Derby						2
Devon						
Dorset						
Durham						
Essex	5	1	1	<i>Mining and connected Trades.</i>		
Gloucester						
Hants	5	1	2			
Hereford				<i>Manufactures.</i>		
Hertford				2	2	4
Huntingdon					1	
Kent			5		2	1
Lancaster	13	7	11			
Leicester	1	1				
Lincoln		1				
Middlesex (exclusive of the Metropolis)					1	1
Monmouth			1			
Norfolk	1					
Northampton			1		3	3
Northumberland	3	6	1		8	8
Nottingham			1	<i>Commerce.</i>		
Oxford	1				7	1
Rutland						3
Salop					6	7
Somerset (including Bristol)	4	3	1			6
Stafford	1	1	1	<i>Retail and Handicraft Trades.</i>		
Suffolk	1		1		2	
Surrey (exclusive of the Metropolis)		1			2	2
Sussex	1	1				
Warwick	2	3	1		9	4
Westmoreland					3	1
Wilts	2				7	5
Worcester	1	2			10	6
York (East Riding)		1	1			3
„ (North Riding)		1			2	
„ (West Riding)	6	10	8			
Wales		1	3		17	24
Total	86	72	60		86	72
						60



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