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LETTER to the REGISTRAR GENERAL on the Causes of Death in England and Wales, by William Farr, Esq., M.D., F.R.S.

YEAR 1856.

This year, it has been shown in your Report, is remarkable in the annals of England for its low rate of mortality. You have in previous years had more than once to dwell on the ravages of epidemics, and to register the losses of unusual numbers of the population. The process is happily reversed in the year 1856.

I have the honour to submit to you the result of the inquiries into the deaths of the year, and to state their causes, and to show which of them

have prevailed with mitigated severity.

The year differs from the year 1854 in the diminished number of deaths by cholera and other zymotic diseases. It differs from the year 1855 in the diminished number of deaths by influenza, catarrh, and inflammations of the lungs.

The people were neither destroyed by the severities of the winter nor by the pestilences of summer. The improvement will, we may hope, be the harbinger of still healthier years, under better sanitary

The meteorology of Greenwich does not exactly represent the meteorology of the whole inhabited surface of England and Wales, but it enables us to compare the meteorology of successive years. For, it may be safely assumed, that when the mean temperature is above the average at Greenwich it is also above the average in the other parts of England and

The air moved faster at Greenwich in the year than it did in the three previous years. It passed over the Observatory at the rate of 102 miles a day, the average pace of the wind being 99 miles a day. It is worthy of remark, that though the wind is proverbially "swift" its average pace of 41 miles an hour is little more than the ordinary pace of a good walker. The average annual pace is 4.125 miles; the highest pace (1850) is 4.530 miles, the lowest annual pace (1853) 3.548 miles an hour. The pace in 1856 was at the rate of 4.244, nearly 41 miles an hour.

The movement of the wind is of great importance, for it carries off the organic particles that float over human habitations. It varies considerably in different parts, as it is necessarily affected by the form, the

elevation, and the aspect of the ground.

The rain-fall was 21 9 inches, which is slightly below the average of the eight years. The rain-fall was 34 4 inches in 1852 and 18 7 inches

in the year 1854 when cholera was epidemic.

The dew point was 43 '4°; the difference between that point and the mean temperature was 43 '7°, and the mean temperature was 49 '1, which is near the average. In the previous year the mean temperature was 46.9°. The winter of the year 1856 was very mild; the temperature of the spring quarter was above the average; the mean temperature of summer and autumn presented little deviation from the average.

The meteorological elements of the year were not calculated to disturb

the ordinary rates of mortality.

For a summary of the meteorology of these islands, I beg to refer to the valuable table which was furnished by Mr. Glaisher (see pp. xxxii-xxxiii.)

The average price of wheat attained its maximum (74s. 8d.) in 1855; the price in 1856 began to decline, but it remained high, 69s. 2d. Potatoes were comparatively cheap. At the wholesale waterside London market they sold at the rate of 86s. a ton, or of 26 lbs. for a shilling. In 1853 only 17 lbs. of potatoes could be purchased wholesale for a shilling. The comparative abundance of potatoes in 1856 to some extent counteracted the effects of the high price of wheat, and as potatoes are antiscorbutic exercised in other ways a salutary influence.

The price of beef rose progressively from $4\frac{1}{8}d$. a pound in 1852 to $5\frac{5}{8}d$. in 1855; of mutton, from $4\frac{7}{8}d$. to $5\frac{6}{8}d$. a pound in the same years.

Wages apparently rose in the same years, so that the condition of many of the labouring classes was little less substantially good than it is in years when the prices of wheat and meat are moderate.

TABLE (1).—Causes of Death registered in England in each of the Eight Years 1849—1856.

of parameter of P make	Burnish .	1046	-1000	ine les	ARREST T			Michael
CAUSES OF DEATH.	1849	1850	1851	1852	1853	1854	1855	1856
ALL CAUSES SPECIFIED CAUSES 1 ZYMOTIC DISEASES (Z.) -	440,839 482,710 137,770	368,995 361,536 74,835	395,396 388,675 86,600	407,135 400,439 92,412	421,097 414,197 85,600	437,905 432,242 113,576	425,703 419,798 84,596	390,506 385,840 78,047
CONSTITUTIONAL DISEASES (C.): 2 Diseases of uncertain or variable seat 3 Tubercular Diseases	19,479 65,206	19,341 60,395	19,421 64,075	19,655 66,163	20,383 70,615	19,791 67,145	20,267 67,520	19,024 63,832
LOCAL DISEASES (L.):	47,910	47,447	49,854	50,733	52,017	52,036	52,901	50,535
5 Diseases of the Organs of Cir-	10,850	11,356	11,817	12,517	13,740	13,488	14,552	13,672
6 Diseases of the Respiratory Organs 7 Diseases of the Digestive Organs 8 Diseases of the Urinary Organs 9 Childbirth and Diseases of the	44,542 23,503 3,129	43,827 22,313 3,331	48,759 23,218 3,416	47,400 23,741 3,689	56,436 23,858 3,893	52,484 23,599 4,026	63,742 23,091 4,196	52,908 22,620 4,327
Organs of Generation	3,243	3,187	3,326	3,250	3,343	3,139	3,003	2,917
10 Diseases of the Organs of Locomotion	2,378	2,368	2,412	2,615	2,670	2,479	2,552	2,260
11 Diseases of the Integumentary System - DISEASES OF GROWTH,	917	725	840	830	766	797	775	672
NUTRITION, AND DECAY (D.): 12 Malformations 13 Premature Birth and Debility 14 Atrophy 15 Age 15	713 17,528 11,902 26,750	781 18,051 10,470 25,567	786 18,943 12,211 25,980	861 19,075 13,056 26,376	865 18,968 13,083 29,130	944 18,680 14,412 26,466	916 17,818 14,724 29,714	1,000 17,997 13,712 23,931
16 Sudden Deaths (Causes unascertained)	3,555 13,335	3,560 13,982	3,458 13,559	3,591 14,475	4,018 14,812	3,993 15,187	4,139 15,292	3,474 14,912
1 1 Small-pox	4,644 5,458 13,123 9,622 4,038 1,126 17,831 3,050 53,273 1,618 269 171 603 443 17,896 1,165 4,05 2,303 595 120 17 1,288 10,753 831 300 88 1,198 4,808 2,739 2,739 4,440 50,299	4,967 224 2,484 4,012 46,618	6,997 9,370 13,634 7,905 4,180 1,175 14,728 2,185 1,132 2,152 248 167 607 808 17,122 1,009 465 1,998 598 95 25 1,376 9,873 973 317 121 1,329 5,218 214 2,592 4,510 49,166	7,320 5,846 18,887 8,022 4,058 1,237 17,617 2,756 1,381 1,359 234 151 666 796 17,845 972 454 2,075 623 98 15 1,447 9,788 1,447 9,788 1,447 9,788 2,580 4,700 50,594	3,151 4,895 15,699 11,200 3,660 1,202 14,192 1,891 4,419 1,789 266 183 709 452 452 1,813 622 100 11 1,374 10,302 1,053 351 104 1,319 5,663 217 2,727 4,965 54,918	2,808 9,277 18,528 9,770 3,998 1,190 20,052 1,943 20,097 1,061 282 192 646 561 18,332 1,937 964 136 1,330 9,396 1,274 358 117 1,244 5,826 2,613 5,638 51,284	2,525 7,354 17,314 10,185 4,419 11,149 12,770 1,437 8,568 324 149 575 438 16,032 1,079 1,046 2,256 947 178 14 1,431 9,362 1,525 278 86 1,282 6,016 287 2,985 4,762 52,290	2,277 7,124 14,160 9,225 5,207 1,094 13,815 1,835 762 1,029 227 124 162 784 15,398 1,067 1,076 2,133 879 164 5 1,699 8,213 1,459 289 73 1,172 5,859 260 2,831 4,752 48,950
32 Phthisis (or Consumption) - 33 Hydrocephalus 4 34 Cephalitis 35 Apoplexy 36 Paralysis 37 Delirium Tremens 38 Chorea 39 Epilepsy 40 Tetanus 41 Insanity 42 Convulsions 43 Disease of Brain, &c	50,239 7,728 3,200 7,797 7,328 509 34 1,805 133 542 23,703 2,859	7,281 3,198 8,094 7,317 540 60 1,631 108 529 23,000	43,100 7,807 3,628 7,946 7,587 503 77 1,760 118 542 24,592 3,101	8,289 8,289 3,686 7,896 7,911 487 73 1,935 145 535 24,558 3,507	8,005 3,618 8,496 8,378 508 67 2,120 116 472 24,798 3,444	7,610 3,752 8,366 8,353 551 48 2,052 180 541 24,579 3,614	7,483 3,466 8,645 8,905 536 69 2,136 153 494 24,917 3,580	7,299 3,414 8,278 8,497 451 59 2,096 120 370 23,946 3,304

I. CAUSES of DEATH.

Of the 390,506 deaths in the year the causes were not specified at all in 4666 instances, and only specified vaguely in 3474 cases which are tabulated simply as sudden deaths, no further definite information having been elicited by the inquiries, chiefly of coroners' juries.

(1.) Zymotic diseases :- Zymotici.

78,047 persons died of zymotic diseases; which proved fatal to 4.148, or rather more than four in 1000 of the population. Twenty per cent. of the deaths were by zymotic diseases.

TABLE (1).—Causes of Death registered in England in each of the Eight Years 1849—1856—continued.

1849—1856—continued.													
CAUSES OF DEATH.	1849	1850	1851	1852	1853	1854	1855	1856					
5 44 Pericarditis 45 Aneurism 46 Disease of Heart, &c	569 288 9,993	620 286 10,450	563 289 10,965	589 266 11,662	561 315 12,864	594 308 12,586	588 312 13,652	531 338 12,808					
6 47 Laryngitis 48 Bronchitis	858 14,826 956 21,194 4,104 2,604	1,053 14,611 877 20,303 4,574 2,409	939 17,294 984 22,001 4,896 2,645	1,083 17,073 945 21,421 4,309 2,569	1,097 22,391 855 24,098 5,143 2,852	1,145 20,062 955 23,523 4,271 2,528	1,155 27,182 1,153 26,052 5,454 2,746	1,294 21,528 886 22,653 4,103 2,444					
7 53 Teething	4,627 459 720 4,097 1,304 612 817 667 982 272	4,086 473 519 3,733 1,248 664 791 704 1,149 222	4,408 369 721 3,854 1,250 684 856 708 1,107 268	4,413 391 685 3,901 1,304 698 976 683 1,088 250	4,676 421 676 3,659 1,269 753 1,022 779 1,147 244	4,369 345 755 3,614 1,432 748 911 828 1,224 258	4,057 874 810 3,225 1,388 836 876 874 1,188 243	3,660 416 816 3,234 1,310 760 946 848 1,190 280					
64 Disease of Stomach, &c.	233 2,405	248 2,247	240 2,235	291 2,159	241 2,000	257 2,018	233 2,362	242 2,357					
65 Disease of Pancreas 66 Hepatitis 67 Jaundice 68 Disease of Liver 69 Disease of Spleen	1,438 1,166 3,639 56	17 1,436 1,166 3,553 57	8 1,453 1,282 3,709 66	1,594 1,281 3,948 74	9 1,520 1,239 4,139 64	13 1,500 1,264 3,992 71	5 1,446 1,300 3,820 54	12 1,437 1,446 3,615 51					
8 70 Nephritis Bright's	172	178	183	197	237	205	244	269					
Disease)	400 86 416 219 239 179 1,418	430 91 422 249 214 207 1,540	477 100 403 204 212 244 1,593	570 106 402 208 231 251 1,724	641 109 412 224 236 241 1,793	776 118 436 183 276 256 1,776	793 120 448 234 278 218 1,861	954 83 433 233 270 177 1,908					
9 78 Paramenia 79 Ovarian Dropsy 80 Childbirth (see Metria) - 81 Disease of Uterus and Organs of Generation -	139 214 2,174 716	127 219 2,139 702	87 196 2, 281	98 178 2,275	115 217 2,268	70 220 2,055	61 208 1,900	57 211 1,821					
10 82 Arthritis 83 Rheumatism 84 Disease of Joints, &c	54 1,216 1,108	54 1,360 954	72 1,320 1,020	.699 84 1,476 1,055	743 81 1,443 1,146	794 101 979 1,399	834 80 1,124 1,348	828 71 931					
11 85 Carbuncle 86 Phlegmon 87 Disease of Skin, &c	81 645 191	134 422 169	161 481 198	233 365 232	252 309 205	300 239 258	255 255 265	1,258 253 126 293					
12 88 Cyanosis 89 Spina Bifida 90 Other Malformations -	161 178 374	167 212 402	230 210 346	279 242 340	295 279 291	294 243 407	300 247 369	341 299 360					
13-16-(See above.)	Lane of	11-											
17 95 Intemperance 96 Privation of Food 97 Want of Breast-milk - 98 Neglect 99 Cold	308 122 460 85 100	323 73 458 38 102	289 58 553 15 52	308 54 593 23 66	373 78 632 21 103	318 87 742 33 107	286 91 850 36 195	237 69 704 32 86					
100 Poison	2,761 1,068 2,434	454 2,782 1,174 2,531	444 2,620 1,162 2,280	370 2,582 1,330 2,719	409 2,590 1,249 2,508	398 2,755 1,349 2,528	380 3,177 1,314 2,472	432 2,919 1,314 2,681					
sions	4,171 542 839	4,232 590 1,225	4,433 586 1,067	4,847 622 961	5,551 574 724	5,777 596 497	5,468 617 406	5,433 603 402					
Causes not specified -	8,129	7,459	6,721	6,696	6,900	5,663	5,905	4,666					

The mortality in the last three years by zymotic diseases decreased progressively from 6·180 to 4·567, and to 4·148 in 1000 of the population. The decrease is due in great part to the diminished rates of mortality from cholera and its attendant diarrhœa; thus out of every million of the population 2185 died of cholera and diarrhœa in 1854, and only 774 in 1856; the decrease referable to these two heads is 1411, leaving 621 to be accounted for by the decrease in the mortality of small-pox, measles,

Table (2).—ENGLAND. Causes of Death. To 1,000,000 Persons Living, the Deaths from each Class of Causes, and from each Cause, in the Years 1854, 1855, and 1856.

CAUSES OF DEATH.		Deaths 1,000,000 Personaliving.		CAUSES OF DEATH.		Deaths t 1,000,000 Persons living.	
	1854	1855	1856	ARRE I SAME I IN MUNICIPALITY	1854	1855	1856
ALL CAUSES 1 ZYMOTIC DISEASES (Z.) CONSTITUTIONAL DISEASES (C.): 2 Diseases of uncertain or variable Seat 3 Tubercular Diseases LOCAL DISEASES (L.): 4 Diseases of the Nervous System 5 Diseases of the Organs of Circulation 6 Diseases of the Digestive Organs 7 Diseases of the Urinary Organs 9 Childbirth and Diseases of the Organs of Generation	23,520 6,180 1,075 3,654 2,832 784 2,866 1,287 219 171 134 43 51 1,016 784 1,441 217 826 153 505 1008 582	22,659 4,567 1,093 3,644 2,856 786 3,439 1,245 226 162 137 42 49 964 795 1,606 223 825 136 397 935 550	20,504 4,148 1,010 3,392 2,686 726 2,812 1,204 228 155 120 36 729 1,271 185 793 121 379 752 490	5 44 Pericarditis	82 17 685 62 1092 52 1,280 232 232 138 288 19 41 197 78 45 67 67 14 110 78 22 69 217 4	32 17 737 62 1,467 62 1,406 294 148 219 20 44 174 75 47 64 13 13 13 78 70 206 3	28 18 680 69 1,144 47 1,204 218 130 194 222 43 172 70 40 50 50 63 15 13 125 66 76 67 66 192 3 3 14 5 18 18 18 18 18 18 18 18 18 18
6 Croup	218 65 1091 106 1094 58 15 10 35 31 997 52 45 105	239 62 689 78 45 193 17 8 31 24 865 58 56 122	277 58 734 71 40 55 12 7 9 42 818 57 57	870 Nephritis	5	6 24 13 15 12 100 3 11 103 45	4 23 12 14 9 101 3 11 97 44 4
18 Erysipelas	52	51	47 9 3 90 436 78 15 4 62 311	83 Rheumatism	58 76 16 13 14 16 13 22	72 14 14 14 14 16 13 20	18 7 16 18 16 19
3 0 Scrofula	142 307 2,791 414 204 455 455 30 3112 10 29	161 257 2,822 404 187 467 481 29 4 115 8	150 253 2,601 388 181 440 452 24 3 111 6 20 1,273	17 95 Intemperance 96 Privation of Food 97 Want of Breast-milk 98 Neglect	17 5 40 2 6 22 150 73 138 314 32 27	15 5 46 2 11 21 171 71 133 295 33	13 4 37 2 5 23 155 70 142 289 32

The Table may be read thus: In 1856 to every 1,000,000 Persons living there were 20,504 deaths from All Causes (rather more than 20 in 1000); 121 deaths from small-pox; 379 from measles; 752 from scarlatina, and so on.

scarlatina, hooping-cough, thrush, dysentery, influenza, scurvy or purpura, ague, remittent and infantile fever, typhus, and syphilis.

Croup and rheumatic fever were unusually fatal. Metria (childbirth fever), which is closely allied to erysipelas, was also more fatal than it had been in some previous years.

The mortality by seven of the zymotic diseases within the last fifteen

years is shown in the annexed Table.

The new series of Tables (pp. 148-159.) exhibits the number of deaths in each district from the principal zymotic diseases, from consumption,

diseases of the respiratory organs, and from violence.

(2.) Constitutional diseases :- Cachectici.

82,856 persons died of this class of diseases; which contributed 4.402 to the annual rate of mortality out of 1000 living. 21 per cent. of the deaths were due to constitutional diseases.

This class consists of two great groups. Of the group of diseases of variable seat 19,024 persons died, comprising 8213 who died of dropsy and 5859 of cancer in its various forms. The tubercular diseases were fatal to 63,832 persons, comprising 2831 who died of scrofula, 4752 of tabes mesenterica, 7299 of hydrocephalus, and 48,950 of consumption. The mortality by consumption was at the rate of 2.6 in 1000 on the population; 12.7 per cent. of the deaths were by consumption; while in 1854 11.9 of the deaths were from this disease. The deaths by consumption to 1000 living were in an inverse proportion; or 2.601 in 1856 and 2.791 in 1854.

This is in accordance with the principle which was laid down in the Appendix to the First Report: when the deaths by consumption constitute a large proportion of the total deaths, the mortality from all causes, and often from consumption itself, is low, and conversely. Through ignorance of this principle, it has been assumed that consumption is more fatal in England than it is in the other countries of Europe.

Constitutional diseases vary less than zymotic diseases in different times and places, hence in unhealthy years and places the deaths by zymotic diseases increase more than the deaths by constitutional diseases, which appear to be comparatively less, although they are absolutely more numerous. Thus in the two years 1849 and 1856 the deaths by zymotic diseases were 137,770 and 78,047, the deaths by constitutional diseases were 84,685 and 82,856, and during the eight years constitutional diseases were every year nearly equally fatal.

Table (3.)—ENGLAND and WALES. Number of Deaths and Annual Rate of Mortality from Seven Zymotic Diseases, and from All Causes, in groups of Five Years.

							DEATHS.		AVERAGE to 100	AVERAGE ANNUAL MORTALITY to 100,000 Persons living.			
	Dise.	ASES.				I	n the 5 Yea	rs		n the 5 Yea	rs		
						1838 to 1842.	1847 to 1851.	1852 to 1856.	1838 to 1842.	1847 to 1851.	1852 to 1856.		
Small-pox		-	-	-	-	44,916	27,436	18,081	57 -	81	19		
Measles	-	-	-	-	-	42,413	37,467	34,496	54 .	43	37		
Scarlatina	-	-	-	-	-	62,911	75,326	84,588	80	86	- 91		
Whooping-	cougl	1 -	-	-	-	39,594	41,419	48,402	50	47	- 52		
Typhus	-	-	-	-	-	82,665	101,038	85,622	105	- 115	92		
Cholera	-		-	-	-	3,490	57,988	27,496	4	66	30		
Diarrhœa	-	-	-	-	-	16,994	66,689	78,446	22	76	84		
	ALL	CAU	SES	-	-	1,734,435	2,024,738	2,082,346	2,207	2,307	2,237		

(3.) Local diseases :- Monorganici.

149,911 persons died of inflammations, the allied pathological phenomena, or their results, and functional diseases of particular organs. 50,535 persons died of diseases of the brain and nervous system, including deaths by cephalitis 3414, apoplexy 8278, paralysis 8497, epilepsy 2096, convulsions 23,946. Of the rare and remarkable disease chorea 59 persons, of tetanus 120 persons died. The chorea fluctuated so much, rising from

Table (4).—ENGLAND. Causes of Death. To every 1,000,000 Deaths from All Causes, the proportional Numbers from each Class of Causes, and from each Cause, in the Years 1854, 1855, and 1856.

CAUSES OF DEATH.		roportion Number o 1,000,00 Deaths.		CAUSES OF DEATH.		oportion Number 1,000,00 Deaths.	
	1854	1855	1856	The standard of the standard of the	1854	1855	1856
ALL CAUSES 1 ZYMOTIC DISEASES (Z.)		1,000,000 201,516	1,000,000 202,278	5 44 Pericarditis 45 Aneurism	1,374 713 29,118	1,401 743 32,520	1,376 876 33,182
CONSTITUTIONAL DISEASES (C.): 2 Diseases of uncertain or variable Seat Tubercular Diseases	45,787 155,341	48,279 160,840	49,305 165,436	6 47 Laryngitis	2,649 46,414 2,209 54,421	2,751 64,750 2,747 62,058	3,354 55,795 2,296 58,711
LOCAL DISEASES (L.): 4 Diseases of the Nervous System 5 Diseases of the Organs of Circulation 6 Diseases of the Respiratory Organs 7 Diseases of the Digestive Organs 8 Diseases of the Urinary Organs 9 Childbirth and Diseases of the Organs of Generation	120,386 31,205 121,423	126,015 34,664 151,839 55,006	130,973 35,434 137,124	50 Pneumonia	9,881 5,849 10,108	12,992 6,541 9,664	10,634 6,334 9,486
Diseases of the Digestive Organs Diseases of the Urinary Organs Childbirth and Diseases of the Organs of Generation	54,599 9,314 7,262	55,006 9,994 7,153	58,626 11,215 7,561	7 53 Teething 54 Quinsy 56 Enteritis	798 1,747 8,361 3,313	891 1,929 7,682	1,078 2,115 8,382 3,395
10 Diseases of the Organs of Locomotion 11 Diseases of the Integumentary System DISEASES OF GROWTH, NUTRITION,	7,262 5,736 1,844	6,079 1,845	5,857 1,742	57 Peritonitis	1,731 2,108 1,916	3,306 1,991 2,087 2,082	1,970 2,452 2,198
AND DECAY (D.): 12 Malformations 13 Premature Birth and Debility 14 Atrophy	2,184 43,217 33,342 61,226	2,182 42,444 35,074	2,592 46,644 35,538	62 Intussusception 63 Stricture of the Intestinal Canal	2,832 597 595	2,830 579 555	3,084 726 627
15 Age 16 Sudden Deaths (Causes unascertained)	9,238	9,860	9,003	64 Disease of Stomach, &c 65 Disease of Pancreas 66 Hepatitis 67 Jaundice	30 3,470 2,924	5,627 12 3,445 3,097	6,109 31 3,724 3,748
17 VIOLENT CAUSES (V.)	35,135	36,428	38,649	68 Disease of Liver 69 Disease of Spleen	9,236	9,100	9,369
1 1 Small-pox		17,518 41,244 24,262 10,526 2,737 30,419 3,423 1,994	23,909 13,495 2,835 35,805 3,460 1,975	8 70 Nephritis	474 1,795 273 1,009 423 639 592 4,109	581 1,889 286 1,067 557 662 519 4,433	697 2,473 215 1,122 604 700 459 4,945
10 Influenza	2,455 652 444 1,495	772 355 1,370	588 321 420	9 78 Paramenia 79 Ovarian Dropsy 80 Childbirth (see Metria) - 81 Disease of Uterus and Organs of	162	145 495 4,526	148 547 4,720
14 Infantile Fever	42,412 2,207 1,925 4,481	38,190 2,570 2,492 5,374	39,908 2,765 2,789 5,528	Generation	234 2,265	1,987 191 2,677 3,211	184 2,413 3,260
19 Syphilis	2,230 315 37 - 3,077	33	425 13 4,403	84 Disease of Joints, &c 11 85 Carbunele	3,237 694 553 597	607	650
23 Dropsy	2,947 828 27]	3,633 662 1 208	3,781 749 189	12 88 Cyanosis	680 562 942	588	77.
27 Mortification	13,479	9 14,331	15,185	13-16-(See above.)'.			
3 30 Scrotla 31 Tabes Mesenterica 32 Phthisis (or Consumption)	6,04: 13,04: 118,64: 17,60:	7,111 4 11,34 6 124,56 6 17,82	7,337 12,316 126,866 18,917	17 95 Intemperance 96 Privation of Food 97 Want of Breast-milk - 98 Neglect	736	217 2,025 86	17 1,82 8
4 34 Cephalitis	8,68 19,35 19,82 1,27 11 4,74	5 20,593 5 21,213 5 1,273 1 16 7 5,08 6 36	$egin{array}{c cccc} 3 & 22,022 \\ 7 & 1,169 \\ 4 & 153 \\ 8 & 5,432 \\ 4 & 311 \\ \end{array}$	100 Poison	919 - 6,374 - 3,121 - 5,849 - 13,365 - 1,379	905 4 7,568 3,130 5,889 5 13,025	1,12 3,7,56 3,40 6,94 5,14,08
41 Insanity	- 1,25 - 56,86 - 8,36	4 59,35	5 62,062	100 Woulds	- 1,150		

The Table may be read thus:—To 1,000,000 deaths from All Causes in 1856 there were 5,902 deaths from small-pox; 18,464 from measles; 36,699 from scarlatina, and so on. By placing a decimal point before the three figures on the right hand, the proportion will be shown to 1,000 deaths; thus, there were 5'902 deaths from small-pox to every 1,000 deaths from All Causes.

34 to 77, that in this character it approaches the zymotic diseases, and it will be recollected that a peculiar dancing mania (allied to chorea) is a recorded epidemic of the middle ages.

13,672 deaths were referred to diseases of the organs of circulation, including 338 by aneurism and 278 by angina pectoris, and the mortality which they occasioned was at the rate of less than 1 (it was '726) in 1000 living. Of 100 deaths 3.5 were by these diseases.

52,908 persons died by diseases of the respiratory organs, including

52,908 persons died by diseases of the respiratory organs, including 21,528 by bronchitis and 22,653 by pneumonia. These diseases, and all others of the class, were less fatal than they were in the previous year.

Congestion of the lungs and pulmonary apoplexy were fatal to 594 males and 491 females; and of sunstroke 30 males and 6 females died. The number of deaths from sunstroke in the year 1855 was 9 males and 5 females.

The mortality by this class of diseases was at the rate of 2.8 in 1000. Of 100 deaths they constituted 14.

TABLE (5)—ENGLAND. CAUSES OF DEATH in the Year 1856, arranged in the order of Mortality.

District of the last of the la					
CAUSES OF DEATH.	Number of Deaths registered in the Year 1856.	Proportional Number from each Cause to 1,000,000 Deaths from All Causes.*	CAUSES OF DEATH.	Number of Deaths registered in the Year 1856.	Proportional Number from each Cause to 1,000,000 Deaths from All Causes.*
Phthisis (or Consumption) — Convulsions — — — — Age — — — — — Pneumonia — — — — Pneumonia — — — — Premature Birth and Debility Typhus — — — — — Scarlatina — — — — Scarlatina — — — — Atrophy — — — — Disease of Heart, &c. — — Whooping-cough — — — Paralysis — — — — Apoplexy — — — — — Hydrocephalus — — — Hydrocephalus — — — Cancer — — — — — — Fractures and Contusions Croup — — — — — Tabes Mesenterica — — — Asthma — — — — — Tabes Mesenterica — — Asthma — — — — — Cephalitis — — — — Disease of Liver — — — Sudden Deaths — — — Cephalitis — — — — Disease of Brain, &c. — — Enteritis — — — — — Burns and Scalds — — — Childbirth and Metria — — Scrofula — — — — — Drowning — — — — Drowning — — — — Disease of Stomach, &c. — Disease of Kidneys, &c. — — Hamorrhage — — — — Laryngitis — — — — — Hanging and Suffocation — Peritonitis — — — — — Hanging and Suffocation — Peritonitis — — — — — Mortification — — — — — Mortification — — — — — Rheumatic Fever — — — Influenza — — — — — — Nephria (or Bright's Disease) Ulceration of Intestines —	48,950 23,946 23,931 22,653 21,528 17,997 15,398 14,160 13,815 13,712 12,803 9,225 8,497 8,278 8,273 7,299 7,124 5,859 5,433 5,207 4,752 4,103 3,660 8,615 3,474 3,314 3,304 3,234 2,919 2,888 2,831 2,681 2,444 2,357 2,277 2,133 2,096 1,908 1,699 1,459 1,446 1,437 1,335 1,314 1,310 1,294 1,258 1,190 1,172 1,094	126,866 62,062 62,063 58,711 55,795 46,644 39,908 36,699 35,805 36,538 33,182 23,909 22,022 21,454 21,286 18,917 18,464 15,185 14,081 13,495 12,316 10,634 9,486 9,369 9,003 8,848 8,563 8,382 7,565 7,485 7,337 6,948 6,334 6,109 5,902 5,528 5,432 4,945 4,403 3,781 3,748 3,724 3,460 3,395 3,354 3,260 3,084 3,085 3,355 3,354 3,260 3,084 3,085 3,355 3,354 3,260 3,084 3,083 2,835	Rheumatism	931 886 879 848 828 816 784 762 760 704 603 531 451 433 432 416 402 370 360 341 338 299 280 270 269 230 253 242 227 211 177 164 162 124 120 86 83 71 69 57 57 57 57 57 57 57 57 57 57	2,413 2,296 2,278 2,198 2,146 2,115 2,032 1,975 1,970 1,825 1,563 1,376 1,169 1,122 1,120 1,078 1,042 959 933 884 876 775 759 749 726 709 697 674 656 627 614 604 588 547 459 425 420 327 321 311 223 215 189 184 179 153 148 132 83 81

^{*} The causes of 4,666 deaths were not specified; in calculating the proportional numbers they have been distributed pro ratâ over all the causes in the Table.

Causes of Death in 1856.

The diseases of the digestive organs were fatal to 22,620 persons; including 3660 children who died in teething, 3234 persons who died of enteritis, 1310 of peritonitis, 760 of ascites; many persons died of various kinds of obstruction of the intestinal canal, namely, 848 of hernia, 1190 of ileus, 280 of intussusception, and 242 of stricture. Of the 848 deaths by hernia, 71 were stated to be by inguinal, 14 by scrotal, 113 by femoral, and 52 by umbilical hernia, besides II deaths (10 of children) by congenital hernia; in 598 cases the kind of hernia was not distinguished. Of the 1190 deaths classed under ileus, 845 were returned as obstruction of the bowels. Of 254 persons who died of worms, 176 were children under 5 years of age. 10 persons died of hydatids of the liver.

Disease of the pancreas was returned as the cause of 12 deaths; of the spleen as the cause of 51 deaths. The liver is much more liable to disease; and including hepatitis, jaundice, and its other maladies, 6498

fatal diseases of this organ were registered.

The mortality by all the diseases of the digestive organs was at the rate of 1.2 in 1,000 of the population; and of 100 deaths 6 were caused by the diseases of this class.

The other local diseases are the causes of comparatively few deaths. 4327 persons died of diseases of the urinary organs; namely, 269 by nephritis, 954 by nephria (or Bright's disease), 433 by diabetes, 233 by stone, 270 by cystitis. 177 deaths by stricture of the urethra, properly belong to gonorrhea, of which it is sometimes the sequel. 1908 deaths are the result of bladder, kidney, and prostate disease of a kind not specified. Diabetes is a well-defined disease, and it has fluctuated very little in eight years; the average annual number of deaths by it was 422, the lowest number was 402 (in 1852), the highest number was 448 (in 1855), the year of extreme cold.

2017 deaths were the results of diseases of the organs of generation; the mortality by them was at the rate of '16 in 1000, and they caused 8 in 1000 deaths. 1067 mothers died of metria or puerperal fever, which is in the zymotic class; and 1821 died of other diseases incidental to the state of childbearing; of the latter diseases flooding was the most fatal; 315 mothers bled to death. The fatality from this disease increases rapidly with the advance of age. Thus 34 women died of flooding of the age 15-25, 121 of the age 25-35, and 150 of the age 35-45; and at the

TABLE (6.)—MORTALITY OF WOMEN BEARING CHILDREN at different Ages in the the Two Years 1855 and 1856

Age Estimated Number of Women bearing Children, 1851.	£	Two	guished in the Years nd 1856.	e	Annual Rate of Mortality. To every 100 Mothers bearing Children, the Number of Deaths by				
	Placenta Prævia and Flooding.	Puerperal Mania.	Puerperal Convulsions.	Rupture of Uterus.	Placenta Prævia and Flooding.	Puerperal Mania.	Puerperal Convulsions.	Rupture of Uterus.	
15—25	107,440	87	33	208	4	•066	•025	158	.003
25—35	328,720	305	90	160	34	.087	*026	.046	.010
35-45	166,140	376	27	65	31	'219	.016	•038	.018
45—55	7,545	23	1	6	2	*262	.011	*068	*023
15—55	609,845	791	151	439	71	1119	023	.066	.011

In calculating the annual mortality a correction has been made for increase of population. The annual rate of increase (females aged 15-55) 1841-51, was '01200, and it has been assumed that the number of women bearing children increased at a uniform rate at each of the ages in the Table. A further correction has been made as follows: At the age 15-55 there were 1,900 deaths from childbirth and 1079 from metria in 1855; and 1,821 from childbirth and 1067 from metria in 1856: excluding deaths from metria, only 964 deaths from childbirth in 1855, and 954 in 1856, were designated under any of the definite headings of the class; and the deaths under each of the above headings are assumed to have been understated in the same ratio, and raised accordingly in calculating the mortality, A similar correction has been made for each age in the Table.

same ages 3, 40, and 38 women died (probably from hæmorrhage), the result of the insertion of the placenta over the aperture of the uterus (placenta prævia). Puerperal mania follows another law. Puerperal convulsions are most fatal to young mothers. The dangers to be guarded against in childbirth thus vary with the age of the woman. The relative extent of the danger from several causes is shown approximatively in Table (6).

The danger of rupture of the uterus increases rapidly; the danger of flooding increases less rapidly; the danger of death by puerperal convulsions is greatest in early life; and the liability to puerperal mania

decreases as age advances.

The mortality in childbirth continues to decrease in England and Wales; the birth of every 10,000 living children was the death of sixty mothers in 1847, and of forty-four in 1856; thus sixteen mothers are now saved on every 10,000 children born. This happy result is partly due to the progress of science; and may well encourage its cultivators to redouble

2260 persons died of diseases of the organs of locomotion, exclusive of the deaths under scrofula, which often affects the bones. The rate of mortality was less than one in 1000; it was little more than 1 in 10,000.

Nearly 6 in 1000 deaths belong to the class.

672 persons died of diseases of the integumentary system; not one in 10,000, but only 36 in 1,000,000 of the population. Less than 2 deaths in 1000 were from these diseases. Yet they included 253 deaths from carbuncle, which has within recent years prevailed epidemically, and may now be justly referred to the zymotic class. The learned Professor of Medicine in Edinburgh gives cases which appear to show, that, under certain circumstances, carbuncle is contagious.* Carbuncle and boil are

Table (7).—Mortality from Metria at different Ages, in the 2 Years 1855 and 1856.

Ages of Mothers.	Estimated Number of Women bearing Children 1851.	Deaths from Metria in 1855-56.	Annual Number of Deaths from Metria to 100 Mothers living.
15-25	107,440	609	*269
25-35	828,720	942	136
35-45	166,140	568	*162
45-55	7,545	27	170
15-55	: 609,845	2146	167

In calculating the annual rate of mortality, a correction has been made for increase of population

Table (8.)—Deaths of Women in Childbirth in the Ten Years 1847-56.

			Nun	ber of Deaths	from	Deaths of
YE	ARS.		Metria and Childbirth.	Metria.	Accidents of Childbirth.	Mothers to 10,000 Children born alive.
1847	-	-	8226	784	2442	60
1848	-	-	8445	1365	2080	61
1849	-	-	3339	1165	2174	58
1850	-	-	3252	1113	2139	55
1851	-	-	3290	1009	2281	53
1852	-	-	3247	972	2275	52
1853	-	-	3063	795	2268	50
1854	-	-	3009	954	2055	47
1855	-	-	2979	1079	1900	47
1856	-	-	2888	1067	1821	44
10 years	1847-	66 -	31738	10303	21435	52

^{*} See the valuable paper on the Pathology and Treatment of the Contagious Furunculoid, by T. Laycock, M.D., F.R.S.E., &c.

not separated in the returns; and in this extended sense the disease is rarely fatal; yet the number of deaths from 81 in 1849 rose to 300 in 1854, and subsequently fell to 253. Singularly enough the deaths from phlegmon decreased.

(4.) Diseases of Growth, Nutrition, and Decay, or Developmental Diseases.

1000 children died of malformations of various kinds; and they were nearly all taken from their parents in the first five years of a life which they could never enjoy. Many children are born prematurely; others are born without evident defects of form, but are feeble, and are so defective in vital energy that they die shortly after birth; adults also, before they attain old age, fall into a state of debility without discoverable disease. All these cases, classed as premature birth and debility, amount to 17,997, or nearly 5 per cent. of the total deaths. The mortality from these causes was at the rate of little less than 1 death to 1000 persons living. Atrophy, or wasting away, was returned, in the absence of any specific malady, as the cause of 13,712 deaths, or of 3.6 per cent. of the total deaths. Seven out of 10,000 of the population died of atrophy.

Old age was the assigned cause of 23,931 deaths. The proportion would be higher were it not that the number of old people living in England in proportion to the population is below the average standard, chiefly in consequence of the excess of births over deaths; yet it is a remarkable fact, that after corrections have been made for this disturbance,

so small a number of the people should attain old age.

(5.) Violent Deaths.

14,012 deaths were the evident effects of external causes, and belong to the violent order of unnatural deaths. 237 deaths were referred directly to intemperance; 451 to delirium tremens. The mortality under both heads has decreased during the last three years; so has the number of deaths (69) described as the result of the privation of food. 704 children died, it is stated, from the want of breast milk; 32 from neglect. The effects of alcohol, and the effects of the privation of proper food at different ages, are often indirect, and are not easily recognizable, as they are liable to be confounded with the effects of other causes. Cold, which was the cause of 195 deaths in the severe winter of 1855, was fatal to 86 persons in the year 1856. The number of deaths by burns and scalds fell from 3177 to 2919; the decrease was 258, while the decrease in the deaths by cold was only 109. This bears out the observation in my previous letter, that the excess of deaths by burns in 1855 was the consequence of the increase of fires, and of the nearer approach of people to the burning fuel. 432 persons were poisoned in the year, or 52 persons in excess of the numbers poisoned in the previous year. The beneficial effect of the Act of Parliament appears to have been temporary.

1314 persons died by hanging and suffocation; the deaths under this head are nearly stationary. 2681 deaths from drowning imply an increase of the mortality by this cause; the deaths at sea are not included in the registers, so that the number of deaths by drowning among our population

a understated

5433 deaths from fractures and contusions imply a great number of injuries to great numbers of people, and they could only occur in a country where mechanical forces of every kind were in extensive action. The number of deaths from these causes, and from other violence not specified, was 5010 in the year 1849, 6275 in the year 1853, and 5835 in the year 1856. Thus the deaths by mechanical violence for some years increased rapidly, and they are now gradually declining. The deaths by wounds were 603.

The rate of mortality by this class of violent causes was nearly 8 in 10,000 living, and nearly 4 in 100 deaths were deaths by violence.

II. DISEASES OF THE SEXES. (Tables, pp. 120-147.)

Few diseases are equally fatal to males and females. The difference in the organs of the body is considerable; the tissues are of different quality; all the functions are modified in boys and girls, in men and women; and by their occupations they are exposed in different degrees to the causes of disease,

In reading the tables it will be borne in mind that there are 1000 males to 1035 females in the population.

Diseases of males.—Zymotic diseases are generally more fatal to males than to females; thus 1248 males and 1029 females died of small-pox; 137 males and 90 females of purpura and scurvy, men being more frequently than women deprived of vegetables. 599 males and 477 females died of rheumatic fever; 4 males and 1 female of hydrophobia, men being more exposed to bites; 61 males and 33 females died of mumps; 7 males and 1 female of glanders.

Among the deaths by constitutional diseases are 825 deaths of males and 634 of females by abscess; 60 of males and 13 of females by fistula; 221 of males and 39 of females by gout, as men generally eat and drink more inordinately than women. Scrofula and tabes mesenterica are most fatal to males; and so is hydrocephalus, of which 4161 males and 3138 females died; the brain of the boy being more liable to disorder than the brain of the girl.

Of the local diseases males die in greater numbers than females (78,152 males, and 71,759 females).

The brain diseases, cephalitis and convulsions, are both most fatal to males; so is delirium tremens, of which 390 males and 61 females died, the excess being referable to the same cause as the deaths of 171 males and 66 females, ascribed directly to intemperance. Of softening of the brain, 475 men and 289 women died. 79 males died of tetanus and 41 females; but it is probable that tetanus was generally induced by wounds and injuries, and that women, the injuries being equal, are more tetanical than men.

Heart disease kills more women than men; but of angina pectoris, 156 men and 122 women died; and aneurism was fatal to 84 women and to 254 men, who often make violent exertions which rupture the large arteries, when these are once rendered fragile by deposits.

Inflammatory affections of the respiratory organs are more fatal to males (28,400) than to females (24,508).

Teething was returned as the cause of the deaths of 1979 males and of 1681 females; it follows the same law as convulsions. So does laryngismus, of which 147 males and 78 females died.

The excess of the deaths of males by disease of liver is probably the result of intemperance. Inguinal hernia is most fatal to males; femoral and umbilical hernia to females.

Diseases of the urinary organs are the causes of the deaths of 3161 males and of 1166 females. The excess of these diseases among males is in the first place due to the difference of organization; the urethra is wider and shorter, the bladder larger in the woman than in the man, hence calculi are passed, which in the form of stone killed 212 men and only 21 women. The inflammatory and other affections of the kidneys are often indirectly caused by calculi, and sometimes by stricture, itself the result of gonorrheal infection. Prostatic disease, of which 313 men died, is peculiar to males. The urinary secretion also probably differs in the two sexes; for diabetes was fatal to 274 men and to 150 women.

Only 40 deaths of males are ascribed to diseases of the organs of generation, exclusive of syphilis and its results.

XIX.

Caries and necrosis, amongst the diseases of the bones, are, like scrofula, most fatal to males.

Malformations from arrested development are generally most frequent in males; such is the case as regards cyanosis (males 209, females 132); anus imperforatus (m. 62, f. 22); and cleft palate (m. 32, f. 22); of spina bifida, however, 153 females and only 146 males died.

Of premature births and debility, the deaths of males are 1929 in excess of the 8034 deaths of females. The intrauterine life of the males is the most hazardous. Sudden death from diseases undetermined is more frequent in men than in women.

Males, are in every way except one, the most exposed to die violent deaths, whether it be by war, by suicide, by accident, by negligence, or by public execution.

Diseases of females.—Of the zymotic diseases, hooping-cough is the most fatal to females; 4007 males and 5218 females died of the disease. Influenza is also most fatal to females; chiefly, perhaps, because the number of females living at advanced age is in excess of the number of males. Metria is a disease exclusively incidental to child-bearing women.

Of the constitutional diseases,—dropsy, from disease of the kidneys, probably, or from diseased heart—is most fatal to women; 4715 women and 3498 men died of dropsy. Of cancer, attacking chiefly the breast and the uterus, 4069 women and 1790 men died.

Consumption is much more fatal to women than to men; of this destructive disease 23,016 males and 25,934 females died. The disparity in the rates of mortality is most striking at the ages from 15 to 55, as will be immediately apparent on comparing the figures.

TABLE (9).—DEATHS FROM CONSUMPTION.

Commence of the second section of	-	1	F			
Ages	10-	15-	25-	35-	45-	55-
Men Women	725 1192	5437 6915	5335 6598	4143 4657	2338 2527	1660
Excess of female deaths in one year -	467	1478	1263	514	189	defect 438

Consumption, which is so fatal to young persons, attacks young women in a greater proportion than it attacks young men. How many of the thousands of excessive deaths are to be ascribed severally to the fatal

Table (10.)—ENGLAND AND WALES. Annual Rate of Mortality from Phthisis at different Ages, during the 7 Years 1848-54.

	ESTIMATED In the Mid	POPULATION dle of 1851.	DEATHS from	m PHTHISIS ars 1848-54.	AVERAGI DEATHS fro to 1000 livin	EXCESS of Female Rate over the Male	
	Males.	Females.	Males.	Females.	Males.	Females.	Rate of Mortality.
All Ages -	8,808,662	9,174,187	166,741	187,801	2.40	2*92	•22
0- 5- 10- 15- 25- 35- 45- 55- 65- 75- 85- 95 and upwards	1,180,430 1,053,510 967,907 1,671,634 1,323,621 1,017,018 734,514 482,788 268,052 97,008 12,745 535	1,174,915 1,045,298 952,248 1,746,854 1,417,298 1,072,611 782,010 528,186 311,135 123,610 19,009 1,014	13,990 4,825 5,879 38,416 37,421 28,104 20,086 12,127 5,038 756 5 53	18,271 5,374 9,583 48,963 46,457 31,403 17,578 10,036 4,224 803 71 8	1.69 .65 .87 3.28 4.04 3.95 3.91 3.59 2.68 1.11 0.60 .19	1'61 '78 1'44 4'00 4'68 4'18 3'21 2'71 1'94 '93 '53 '39	- '08 '08 '57 '72 '64 '23 - '70 - '88 - '74 - '18 - '07 '20

Note.—The Table may be read thus:—In the 7 years 1848-54 the average annual rate of mortality from Phthisis, to 1,000 living, of males aged 15 and under 25 years, was 5 28; of females 4 00; being an excess in the female rate of mortality of 72. At the ages 0-5, 45-55, &c. the male rate is in excess of the female rate, as is

stays, to the in-door life of women, to peculiarities of organization, and to other causes, it is not easy to calculate. But it is evident physiologically that air is the pabulum of life, and that the effects of a tight cord round the neck and of tight lacing round the waist, only differ in degree, in the time of their manifestation, and in some of their symptoms; for the strangulations are both fatal. To wear tight-laced stays is in many cases to wither, to waste away, to die; and is perhaps the natural chastisement of the folly which inflicts this Chinese deformity, natural only to wasps and other insects, on the grace and beauty of the human figure.

The causes of the fatality of this disease require further investigation.

The causes of the fatality of this disease require further investigation. Among the brain diseases, chorea was fatal to 45 females and 14 males. Insanity is often complicated with other diseases, which are returned as the causes of death; but a majority of the deaths ascribed to insanity occur among females. 32 women are returned as dying of hysteria; 9 of fright.

Heart disease is more fatal to women than to men; so are gastritis, peritonitis, ulceration, and stricture of the intestines and gallstone. Of ascites 276 men and 484 women died.

Of ovarian dropsy, a disease peculiar to women, 211 died; and 57 women died of paramenia. While 40 men died, 788 women died of diseases vaguely returned, and classed consequently as diseases of the organs of generation.

Of the malformations, spina bifida alone appears to be most fatal to females.

While other violent deaths were chiefly fatal to men, burns and scalds are nearly equally fatal to the two sexes.

III. DISEASES OF INFANTS UNDER ONE YEAR OF AGE.

The structure of the infant frame is immediately tested after his birth; and sometimes from injuries in birth, sometimes from physical defects, and sometimes from his imperfect chemical affinities, the process of life ceases. The infant dies. His elements are given to the grave. All his faculties are imperfectly developed, and he can give no articulate information. The characters of diseases themselves are often imperfectly marked; and his means of defence against injury lie chiefly in his mother's love, which is generally adequate to its office. The fate of the infant which the mother abandons, not in the street, but in the house, when she works in the field or the factory, or when she indulges in any vice, or neglects cleanliness, is early death. All the poisonous emanations from the drains and cesspools destroy children, created to live in pure air. Hence, with few direct infanticides, the deaths of 94,407 infants under one year of age are registered in England and Wales, in the year; 18,808 infants died of zymotic diseases, of which diarrhoea is the most fatal. 7893 infants died of diarrhoea. To thrush the deaths of 1034 infants are ascribed. Whooping-cough was fatal to 3708 infants. The other zymotic diseases were more or less fatal. Syphilis, either congenital or from immediate infection, was the registered cause of 579 deaths.

Scrofula, tabes, and hydrocephalus are fatal to many infants; cephalitis was fatal to more than 500 infants; convulsions to 10.718.

Bronchitis and pneumonia are not easily distinguished in infants; in the aggregate the deaths from these causes amounted to 12,738. Like convulsions, they are much more fatal in males than in females.

The malformations generally terminate fatally in the first year of life. The want of breast-milk was returned as the cause of 695 deaths. A few infants die of burns and scalds; but suffocation in bed, from overlaying or from the shutting out of the air from the child, is the most frequent violent death of infants.

IV. CORONERS' RETURNS OF VIOLENT DEATHS.

Life is still a mystery, and it ceases sometimes inexplicably; yet many causes of death are evident. It was known from the beginning that man can kill man; and the cause of homicide is not only discoverable, but, to some extent, controllable. The culpable man can be punished, with a view to prevent the repetition of the fatal act by himself or by others. In England a special officer has been elected by the people, from the earliest times, to visit the body of every person slain or wounded, and to inquire into the circumstances of each case. The mere fact that the death was sudden, or that the body was found in water, if the coroner was called upon, rendered inquiry imperative; and it is accordingly enjoined in the statute (4 Edward I.) regulating the coroner's office.

The progress of science has created new forces, often fatal, and has produced new substances, of which our forefathers had no knowledge. Machinery is organized on a large scale, so that the lives of numbers of men are liable to be destroyed, not by malicious intent, but by the negligence of other men who have their lives in charge. Thus, great numbers die by railway accidents; many perish in mining operations; children are suffocated in bed or are burnt by "their clothes taking fire." Poisoning is not mentioned in the act of Edward; but poisoning is now, unhappily, a common cause of death. Poisons are the most insidious instruments which assassins can employ, and they were evidently little known in England before the Reformation; yet the first English legislators directed inquests to be held on the body dying suddenly, because death might possibly even then be the result of secret violence. Persons slain generally die suddenly; hence, it was made the rule to hold inquests in cases of sudden death. Such was the wise provision of the law.

A man is killed; the coroner receives notice, and summons a certain number of men to inquire, under his direction, into the causes of the death, and to pronounce, after hearing the evidence, a preliminary verdict of acquittal or of guilt. The utility of the inquest is evident. It recognized, in barbarous times, the value of human life. No man could be slain without inquiry. It was a simple means of discovering the guilty, and it brought home blame to the negligent; at the same time the innocent were protected against false imprisonment, for "guilty" was not the verdict of a despot, but of a jury of twelve or more ordinary men who fairly represented public opinion. The verdict threw a shield around the innocent, who, without the inquiry, might have been falsely suspected: it left no excuse for private vengeance: and, undoubtedly, the coroner and the jury deterred many evil natures from the commission of crimes which they would have perpetrated had not the dread of the inquest interposed. Lives were thus saved, and every man enjoyed a sense of security which the commission of murders with impunity would have destroyed in the great mass of the population. For, without the inquest, assassination would be the death of many men—the dread of all.

The coroner's inquest is entirely a popular institution. The county coroner is elected by the freeholders; and it is one of the great advantages of the inquest that it engages the great body of the people in the administration of justice; public opinion is thus never in favour of a man whom a jury has pronounced guilty. Assassins and bravoes have been shielded from discovery by people in foreign lands who have never served on juries. Through inquests the great body of the English people have been taught also, to some extent, the action of general causes, such as nuisances,

Coroners are elected for counties, and in some cases, for sub-divisions of those counties; boroughs and some districts have special coroners. England and Wales have, apparently, 324 coroners, some of whom appoint deputies; they held, according to Mr. Redgrave's returns, inquests on 21,801* bodies in the year 1856. The total charges amounted to 67,000l., averaging 3l. 1s. 6d. for each death into which inquiry was made. The charges included the coroner's fees (11. 6s. 8d. on each inquest), and mileage (9d. a mile, reckoning only one way, from his usual place of abode to the body); medical fees for evidence, autopsies, and analyses; witnesses' expenses, constables' allowances, and payments to jurymen, and for rooms.

The findings of the juries are classed under the following heads by Mr. Redgrave:

Injuries from Causes unknown Homicide	424 482	Including—Murder 205 Manslaughter - 271 Justifiable Homicide - 6
Suicide Accidental Deaths	1,314 9,716	o ustinable Hollifelde - 6
Ascertained Violent Deaths -	11,936	
Natural Deaths Found dead	7,102 3,183	
Total Dead bodies on which inquests were held]	22,221	Thèse numbers are 420 in excess of the true number—owing to a dupli- cate entry.

It would thus appear that nearly 10,285 of the bodies died of disease, or in ways not positively ascertained to be violent; and that 11,936 died violent deaths, which involved charges of murder, manslaughter, or justifiable homicide in 482 cases. Ultimately 265 persons were, according to the Criminal Returns, committed to trial for homicide (murder 82, manslaughter 183); and 100 were convicted (31 of murder and 78 of manslaughter).† Of the 31 convicted murderers, including Palmer, 16 were hanged. This was the ultimate result of 21,801 inquests; 100 men and women were convicted of homicide, and variously punished. It is asked, upon the face of this return, "Whether, under our police system, such a number of inquests, leading to no results, is necessary?" "No evidence," it is said, "of crime to satisfy a coroner's jury was found in 21,325 cases; and of the 476 verdicts of murder and manslaughter only a few were sustained by sifted evidence before the judges, for only 109 convictions ensued."

It must, however, be recollected that 1,314 suicides are included in the return; and the importance of inquiring into these cases will not be disputed. If a man has executed himself for crime, or in a state of delirium has destroyed himself, it should be known; and murder may sometimes be disguised under appearances of suicide. 3,183 bodies were found dead; and the utility of inquiry into all these deaths will scarcely

be questioned.

War, homicide, and deaths by wild beasts are probably the principal causes of violent death in uncivilized countries; but the development of mechanical forces in a country is not always accompanied by corresponding safeguards. Horses, untrained by Mr. Rarey, are at first ridden recklessly; carriages are upset by unskilful drivers; children are exposed to death; young ladies are dressed in elegant muslins, but muslins still inflammable, which sometimes, alas! burn away their beauty and reduce them to ashes; light-houses and life-boats are often unprovided. and are often of no avail. Men are destroyed by explosions in mines for the want of adequate ventilation; by defective machinery; and by carelessness. In factories death arises from unfenced machinery. Railway accidents are sometimes accidental, sometimes the consequence of bad

^{*} These numbers are corrected for a duplicate entry in the original Table. The corrections are made on Mr. Redgrave's authority. The details cannot now be corrected. † Criminal Returns 1856.

Coroners' Returns of Violent Deaths.

arrangements, and sometimes the results of carelessness. Drunkenness is frequently a cause of accidental death. The examination of the whole series of violent deaths shows conclusively that the coroner should sit in every case, for the denunciation of the guilty, for the comfort of the innocent, and for the information of the public, who should be taught the nature and the extent of all the dangers by which they are surrounded: for some of those dangers they will learn to avoid, and many of them can be diminished or entirely removed.

Whenever a death occurs suddenly it is wisely enacted that an inquest shall be held; and in interpreting the word "sudden" the fact that the deceased has or has not been recently visited by a legally qualified medical practitioner should be taken into account. Under this interpretation a considerable number of inquests is held on persons who die of common diseases, the effects of which, if scrutinized by medical witnesses, leaves little doubt of their nature. The supposition of violence is thus negatived, and this decisive result is ample compensation to society for the

Virtually, it is true that of twenty-one thousand inquiries only a few lead to the committal and conviction of criminals; but the utility of the inquest is not to be proved by the number of crimes committed, but by the number of crimes prevented; and it is gratifying to find that homicide is comparatively rare in England and Wales. Few countries present so low a proportion of murders. Yet, the instant that the provisions of the law are disregarded, and inquests are not freely held, such homicidal eruptions break out as the poisonings in Essex, the atrocities in Norfolk, which Sir James Graham feared "had resulted from an interference with the duties of the office of coroner," and the systematic poisonings of Palmer, in Staffordshire, who was executed in the year (1856).* The increase of subtle poisons lying for sale in the shops, the increase of life insurance, and the immense number of violent deaths in England, demand the observance of all the existing safeguards of life.

The legislature, in the year 1837, extended the inquiry under the Registration Act so as to make it embrace the cause of every death in England and Wales. The informant, in registering a death, has to answer the question, What was the cause of death? and in all cases of inquest on any dead body it was enacted (6 & 7 Gul. 4. c. 86. s. 25.), that "the jury shall inquire of the particulars herein required to be registered concerning the death, and the coroner shall inform the registrar of the finding of the jury, and the registrar shall make the entry accordingly."

In a letter which was published in the Appendix to your third annual Report (1841) I discussed the coroners' returns of violent and sudden deaths.+ The defects in the "information" were pointed out; and in the year 1845, after further experience, you addressed a letter to coroners, accompanied by observations on the registration of the causes of violent deaths. Your letter to the coroners concluded in these words: "I confidently anticipate that for the future, in all cases in which inquests shall be held, the finding of the jury, as recorded in the register book of deaths, will contain all the particulars which it is desirable to ascertain."

It is gratifying to find that the "cause of death" as returned by the coroners exhibits improvement. That the information is still very imperfectly given in many cases will, however, be evident, upon the most cursory inspection of the Tables (pp. 162-9). Thus it will be seen that in the case of railway accidents the nature of the accident is not

defined in a large number of instances: the deaths in mines are well described: of the deaths by burns, 2181 are referred to the clothes taking fire in the 5 years 1852-6, and 75 to conflagrations, but in 7,730 cases the circumstances are not distinguished; the poisons are not stated in many cases of death by poisoning; the deaths by drowning are often obscure, but they are evidently imperfectly returned where the cause can be ascertained; we learn that 588 persons were drowned while bathing, 215 by falling from ships and boats, 265 by shipwreck, 4 while sliding and skating, and in the greater part of 11,758 cases of drowning the information is left imperfect. Suffocation was the cause of 1,624 deaths, which were left unclassified. The coroners' returns state that in 1856 the verdict of suicide was returned in 1,314 cases; only 1,182 were distinguished in the registers, owing, it is believed, to obscurities in the verdicts. In 195 cases of suicide, 182 of murder, 257 of manslaughter, 2,402 of accident in the 5 years 1852-6, the means by which death was caused are not expressed; thus, it is impossible to learn the total deaths from poisoning or from drowning, or from any particular agent, through these serious oversights in the coroners' returns. In the calculations it has been necessary to distribute 5,328 cases of violent deaths so as to get approximations to the numbers of deaths by railways, mines, mechanical injuries, chemical injuries, and asphyxia. Yet this classification was expressly made to include the greatest number possible of the facts as

TABLE (11.)—DEATHS from RAILWAY ACCIDENTS from 1852 to 1856, both inclusive, in England and Wales, Scotland, and Ireland respectively, as reported to the Board of

Years.	England and Wales.	Scotland.	Ireland.	Total.		
1852	181	24	11	216		
1853	243	36	26	305		
1854	180	29	14	223		
1855	214	14	18	246		
1856	232	30	19	281		

TABLE (12.)

T	'he Abstract of the Causes of Death in
	England and Wales shows that in the
	year 1856, 548 persons lost their lives
	from Violent Causes in connection with
	Railways in England and Wales. They
	are thus returned:

Run over on line	-	306
Fall from carriage or engine	-	22
Collisions	-	11
Carriages off rail, &c.	-	7
Explosion of boiler -		7
Killed between buffer -	-	8
Fall of earth		3
Other deaths (manner not stated)	-	184
		-
Total	-	548

Similar Accidents attended with Death reported to the Board of Trade as having occurred in England and Wales in 1856: --

Run over on lin	ne -	4		137
Fall from carria	age or en	gine		35
Collisions		-	-	14
Carriages off ra	ail, &c.	-	-	10
Explosion of bo	oiler	-	-	. 1
Killed between	buffer		-	23
Fall of earth	-	-	-	Nil.
Other deaths	- 11			12
	Total	-	a Tale	232

Captain Galton, R.E., in explanation of the discrepancy, makes the following remarks: "I believe railway companies return to us all fatal accidents to passengers, except perhaps occasionally when death ensues a long time after the accident; but probably not more than one half the fatal accidents to their own servants are returned; and I believe that many cases of fatal accidents to trespassers are not returned. We endeavour to get as complete returns as we can, but the law only requires returns of accidents to passengers.

^{*} It was stated before a Committee of the House of Commons in 1851, that the constabulary of Staffordshire were instructed not to furnish "notices" of deaths to the coroners, except when crime was suspected. And the coroners were informed, that if they held inquests in such cases their fees would be disallowed. Under these regulations Palmer committed several murders. † Third Annual Report, App. pp. 75-97. See also Sixth Report, pp. 210-66.

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they were returned in 1840; and we are scarcely yet prepared for a more minute classification.

The Tables (pp. 162-180) contain, nevertheless, much useful information. The returns are for the five years 1852, 3, 4, 5, 6. They include 68,554 violent deaths. On an average 13,711 such deaths were registered annually; of males 10,057, of females 3,653. Thus to one female three

males die by violence.

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On an average 480 deaths are returned as occurring annually by railways; the numbers rose from 301 in 1852 to 548 in 1856. The number of the deaths by violence from these as well as other particular causes is probably understated, as it has been already remarked that the manner in which some accidents occur is not distinguished. Yet these numbers greatly exceed the deaths returned to the Board of Trade. In 1856 the Board received accounts of 232 deaths from railway accidents, whereas 548 deaths were registered as having occurred in connexion with rails,

railway carriages, and railway works. (Tables 11, 12.)

In mines 1,136 persons were killed annually; 985 in coal mines, 151 in copper, tin, lead, and other mines. We hear chiefly of deaths by explosions in coal mines, but accurate registration shows that the deaths by the explosion of fire damp are 198 to 939 from other causes. The fall of coal, stone, &c. kills 500 men and women in mines annually, including the crushed; 157 fall into the pits or shafts. Few women are killed by either railways or mines. The deaths by all other mechanical injuries are 4,157 annually, comprising the deaths of 3,328 males and 829 females. Falls from heights, scaffolds, windows, stairs, ships,—and falls in walking, -kill 1,077 persons annually; of whom 253 are females, falling chiefly from heights, windows, or down stairs. The fall of heavy bodies kills 332 persons annually. 1,107 persons are killed annually by horses and horse conveyances; more than double the number killed by railways. The numbers exposed constantly to accidents of this kind are probably greater than the numbers exposed to accidents on railways. The accidents by horses and horse conveyances make less noise in the world than railway accidents; and it is only when the aggregate results are collected by registration that the truth is revealed. The returns are however defective; for 546 annual deaths are referred simply to fractures, leaving the cause of the fractures unspecified.

584 persons die annually by wounds; 161 by gunshot wounds; 233 by cut throat, and 190 by other wounds. A large number of these deaths

are suicides.

3,045 persons died annually of chemical injuries, that is, almost exclusively by burns and scalds. 1,184 females are burnt to death; 815 males. And how is it that so many females die this painful death? The coroners have not yet enabled us to answer the question explicitly. But of the 451 cases where the information is given, 436 were from the clothes taking fire, and only 15 from fires. In the five years 1,349 females are stated to have died from the clothes taking fire; 890 were girls under 10 years of age, 173 were of the age 10-25, and the rest were women of higher ages. Of the 832 males who died from their clothes taking fire, 526 were boys under 5 years of age, 226 were boys of the ages 5-10, and only 80 were of the age of 10 years and upwards. At these early ages the boys as well as the girls wear combustible clothes. Of the 3,195 males and the 4,544 females who died of burns, though in what way the returns do not state, a large number undoubtedly died in the same way. The discovery of these appalling facts will, it may be hoped, lead to new precautions against this danger; and probably the clothes will in the end be rendered by some chemical process incombustible. Of scalds by drinking scalding water, 142 males and 88 females, nearly all children under five years of age, are stated to have died. The larynx is closed in these unhappy cases, and the child is suffocated. Such deaths will be diminished by greater care. Teapots and other vessels containing scalding water will be placed beyond the reach of the children. It will be observed that the young boys are more incautious than the young girls; 125 boys and 70 girls of the ages 1 and under 4 died by drinking scalding water.

The deaths by lightning are so interesting in a scientific point of view that it was thought right to give them in detail. The deaths of males and females at different ages, and in the several divisions and counties, are

401 persons died annually of poisoning; and in nearly 113 cases the poison is not specified. Opium is the principal specified poison; by that drug 125 persons are said to have died, namely, 89 by laudanum, 34 by opium, and 2 by morphia. 34 persons were killed annually by prussic acid, including 15 by the essential oil of bitter almonds. Arsenic stands next, and to it 27 annual deaths are referred. The salts of lead kill 23 persons annually, the salts of mercury kill 10, oxalic acid kills 13, sulphuric acid (oil of vitriol) kills 15 persons annually. The deaths from these poisons are understated, as the 113 deaths from unspecified poisons are chiefly caused by them, and in some cases the poisoning is not dis-

TABLE (13.) VIOLENT DEATHS IN ENGLAND .- AVERAGE ANNUAL MORTALITY to 1,000,000 Living in the 5 Years 1852-56.

No.	end to the meadless of the second	AGES.	0-	5-	10-	15-	25-	35-	45-	55-	65-	75-	85-	95 and upwards.
	TOTAL OF VIOLENT DEATHS	1100.7	1467*8	655.0	795.6	918-2	982.4	1145.5	1384.8	1563.9	1762.3	2228*1	3237 * 5	3603
1 2	Connected with RAILWAYS -	52.8	8.0	15.1	35.8	58.2	88.2	83.6	78.4	60.4	60.8	40.2	16.6	_
-	Connected with Coal Mines - Connected with Copper, Tin, Iron, &c. Mines -	116*4	1.9	11.6				156.0						
3	MECHANICAL INJURIES	396.6	250.6	The state of the state of	15·7 294·8	26·1 303·2	26·6 365·7	10000 minus	100000000000000000000000000000000000000	18·5 798·3	No. of Concession, Name of Street, or other party of the Concession, Name of Street, or other party of the Concession, Name of	11°2	12/5/2019 1974	2803
4	CHEMICAL INJURIES (including Mortality by Burns and Scalds and Poison which see below) -	171.6	716.8	212.5	45.7	41.2	51.0	69.7	84.2	94.4	128.8	254.5	381 . 9	800
5	ASPHYXIA, &c., Suspension of Respiration (including Mortality by Drowning which see below)	345.5	490.2	252.0	250.6	306.2	273.0	315.6	432.3	1000		540.3		-
	BURNS AND SCALDS	138.2	650.6	202.1	33.4	22.2	23.6	29.5	30.8	40.1	78.6	221.0	381.9	800
	Poisoning	27.2	64·5 238·0	8°7	3·2 234·0;	11.0	Married World	33.4	46.7	47.2	42.9	33.5	149.4	-

DEATHS OF FEMALES to 1,000,000 LIVING at each of 12 PERIODS OF LIFE.

		-	1110 1	441 9	169.2	143.0	123.6	172.3	280.1	877.4	745.7	1816.0	4158.5	4580.2
	nnected with RAILWAYS -	4.2	4.8	3.6	3.7	1.9	2.2	4.2	6.1	7.2	13.1	10.3	21.7	_
1	Onnected with Coal Mines - Connected with Copper, Tin,	1.0	-4	•4	1.2	2.3	.6	-6	1.1	1.2	-	-	-	_
	Iron, &c. Mines	.5	-	.5	-	•4	.1	-	. 8	-	-7		-	
3 MH	ECHANICAL INJURIES	93.7	176.7	45.0	31.4	25.6	83.8	50.2	88.4	145.4	366.3	1039 2	2275-0	2081.9
5 Asi	EMICAL INJURIES (including Mortality by Burns and Scalds and Poison which see below) - PHYXIA, &c., Suspension of	181.4	602.7	346.3	102.0	52.8	35*4	46.8						2498.3
te	Respiration (including Morality by Drowning which see elow)	104.8	358*8	46.4	30.8	60.0	51.2	70.2	106.2	122.6	146.2	130.3	108.4	
Por	RNS AND SCALDS	161·0 19·5	556°0 45°6	339·8 5·9	98°6 2°6	35·0 16·7	21·7 12·2	27·4 19·0	47·9 29·0	71·9 28·8	Name and Address of the Owner, where	600.2	1605·0 43·4	2498.3
DR	OWNING	29.0	134.4	41'6;	29.2	52.1	38.1	44.7	60.2	69.1	82.1	80.6	43.4	-

NOTE .- In calculating the annual mortality, the number of deaths of persons whose ages were not stated has been proportionally distributed over the different ages in the Table; the number of deaths referred to violence, of which the kind was not distinguished, has also been proportionally distributed over the different classes.

covered, and the death is ascribed erroneously to disease. The deaths by poisons are murders, manslaughters, suicides, or accidents. They would be greatly diminished if solid opium, laudanum, prussic acid, essential oil of bitter almonds, arsenic, sugar of lead, corrosive sublimate, oil of vitriol, oxalic acid, were only retailed upon the production of a

TABLE (14.)—SUICIDES IN ENGLAND AND WALES. AVERAGE ANNUAL MORTALITY to 1,000,000 living in the Five Years 1852-56.

	DEATHS OF MALES	to 1,0	00,000	LIVIN	g at 12	2 differ	ent PE	RIODS	of Lif	E.	1	
No.	considered to the second	ALL AGES.	10-	15-	25-	35-	45-	55-	65-	75-	85-	95 and upwards.
	SUICIDES	85.1	3.8	40.1	80'0	138.4	240.0	311.1	295.6	252.4	136.2	-
BUILD	Connected with RAILWAYS -	•2	100	.1	•3	•4	•8	•4	.7	· · · · · · · · · · · · · ·	2 1 7	0.00
1	MINES. Connected with COAL MINES-	•2	-	.1	•1	9-0	.5	•4	2.2	-	-	-
	Connected with COPPER, TIN, IRON, &c. MINES	-	-	-		•2	-	-	-	-	-	-
2	MECHANICAL INJURIES (including Mortality by Cut-throat and Gunshot Wounds, which see below)	25.7	•2	10.0	27.2	54.6	66*4	85.1	74.1	77.5	60.6	
3	CHEMICAL INJURIES (including Mortality by Poison, which see below)	6.9		4.4	9.6	14.0	18.9	14.8	16.5	9.9	MIN	8五
4	ASPHYXIA, &c. Suspension of Respiration (including Mor- tality by Drowning and Hang- ing, which see below) = =	100000000000000000000000000000000000000	3.6	25.2	42.8	69.2	153.4	210.4	202.1	165.0	75.6	
4694 V (139 13966	CUT THROAT GUNSHOT WOUNDS	18·5 4·9 6·9	- -2 -	3·4 6·0 4·3	19·4 5·9 9·5	40°3 7°9 14°0	52·2 8·7 18·9	62·9 15·6 14·8	59·9 6·9 16·5	50·5 12·6 9·9	45.4	
	DROWNING	9.9	6	5.8	11.0	17.4	26.0	33.7	29.3	14.7	-	T
	DROWNING, including the Numbers found drowned although not returned as Suicides	85.1	34'9	67:3	85.9	119.9	143.8	151.6	169.5	167'8 147'2	66.4	-
	HANGING	39.8	2.6	18.3	30.0	49.8	120.0	167.7	159.0	147.2	10.0	

DEATHS OF FEMALES to 1,000,000 LIVING at 12 different Periods of Life.

	SUICIDES	32.3	2.8	30.2	33:3	49:3	83.6	80.2	84.0	43.8	50.9	_
	Connected with RAILWAYS -	-	-	-		-	1 - Total	-	-	-		-
1	MINES:— Connected with COAL MINES- Connected with COPPER, TIN,	'1	'2	•2	-	-	•2	-	-	_	1	_
	IRON, &c. MINES	-	-	-								
2	MECHANICAL INJURIES (including Mortality by Cut-throat and Gun-shot Wounds, which see below)	6.2	-	3.2	7.6	10.2	18'3	15'8	21.8	9.4	20.4	-
3	CHEMICAL INJURIES (including Mortality by Poison, which see below)	00	•4	7.2	5.7	10.3	14.1	10.6	6.2	7.8	-	-
4	ASPHYXIA, &c. Suspension of Respiration (including Mor- tality by Drowning and Hang- ing, which see below)	20.1	2.2	19.3	20.0	28.5	51.0	53.8	56*0	26.6	30.5	# 74 M
	CUT THROAT	5.2	-	2.5	6.1	9.2	14.8	13.4	17.2	6.3	10.2	-
	Gun-shot Wounds	5.6	1.4	7.2	5.6	10.1	14°1 15°1	10.6 15.3	6.2	7·8 6·3	10.2	-
	DROWNING, including the Numbers found drowned although not returned as Suicides -	29.7	11.0	33.9	26·7 8·5	30°2 17°4	46.8	48.0	46·9 37·7	37·7 18·8	21.7	-

Note.—In calculating the Annual Mortality the Deaths of Persons whose Ages were not stated have been distributed proportionally over the different Ages in the Table. The Deaths referred to Suicide (manner not stated) have also been distributed proportionally over the various classes. The numbers are still under-stated, and should be raised about one ninth part if the coroners' returns to the Home Office be taken as the basis of an estimate.

medical prescription. Quack medicines, overdoses, and improper medicines are stated to have caused 183 deaths in five years.

3,826 annual deaths are the result of interrupted respiration (asphyxia), including 2,566 deaths by drowning. These returns are incomplete. Persons drowned at sea, whose bodies are not washed on the English shores, are not registered; hence large numbers of the maritime population perishing in the sea remain unregistered. Of the dying by drowning 2,044 were males, 522 were females; they were generally adults. Bathing, shipwreck, falls overboard, are the principal assigned circumstances to which drowning is referred, but the circumstances are unassigned in nearly 2,352 cases.

Suffocation is stated to have caused 708 deaths annually; it was referred to choking by food in 57 cases, bedclothes in 183 cases, overlaying in 106 cases, mephitic gas in 16 cases, limekilns in 13 cases, charcoal in 3 cases. But the cause of suffocation was not stated in nearly half the cases.

494 persons die by hanging every year, 384 males and 110 females; and 50 are strangled annually.

Some of the persons executed have not been distinguished in the registers from other persons hanged; instead of 35, the number actually executed in the five years was 45.

I have already referred to the imperfect returns of 195 suicides, 182 murders, 257 manslaughters, 2,402 accidents, 1,684 injuries. Often the way is not ascertained in which infanticide is committed.

Suicides.

1,083 suicides were returned annually so as to be distinguishable in the register*, which is probably less by a tenth than the numbers actually distinguished. Hanging is the most common form of suicide; cut-throat and drowning stand next in the order of frequency: eight-tenths of the suicides are committed in one of these three ways.

The tables show how a few of the murders and manslaughters were committed. The information is very defective.

The annexed Tables show some of the most striking results deducible from the returns in their present state. (Tables 13, 14, 15.)

Table (15.)—MURDERS AND INFANTICIDES AND MANSLAUGHTERS IN ENGLAND AND WALES.—AVERAGE ANNUAL MORTALITY to 1,000,000 LIVING in the 5 Years 1852-56.

and the second	ALL AGES.	0=	5-	10-	15-	25-	35-	45-	55-	65-	75-	85-	95 and
MURDERS AND INFANTICIDES MANSLAUGHTERS	12.8	68.8	60000	1.6	8.9	7:0	4'9	6.3	2.8	3·6 9·4	6.0	-	-
DEATHS OF FEMA	LES t	0 1,00	0,000	Livin	at ea	ich of	12 diffe	erent 1	PERIOI	s of	LIFE.		
MURDERS AND INFANTICIDES MANSLAUGHTERS	9.7	59°1	2.4	'8 1'4	·8	2.7	2.7	4.0	4.0	4.4	9.4	10.5	1 1

Note.—In calculating the annual mortality the deaths of persons whose ages were not stated have been distributed proportionally over the different ages in the Table.

^{*} In 1856 the suicides distinguishable in the registers were 1,182; the coroners' returns in Mr. Redgrave's Tables (p. vii.) make the suicides 1,314, from which a few should be deducted for the duplicate return.

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V. Suggested Improvements in the Coroner's Inquest.

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The inconceivable importance of these inquiries will be evident from the number of the violent deaths, which exceed the deaths in all our wars, and may undoubtedly be prevented to a large extent.

The contentions of the county coroners and the magistrates have already been referred to. The county coroners pay the expenses of inquests, and are afterwards reimbursed out of the county rates. By a decision of the courts of law, the magistrates consider themselves justified in deciding in every case after the inquest has been held whether it was "necessary." If they consider it unnecessary, they stop the coroners' fees. The utility of the coroner's office is greatly impaired by this state of things. The cause of death is sometimes not ascertained. He ceases to be responsible for holding inquests, which are disallowed on no settled principles. Cases occur in which the coroners refuse to hold inquests on the bodies of persons dying by violence, dying suddenly, or found dead; and in other cases they hold inquests for which they are mulcted to the full extent of their fees and allowances. The coroner is thus degraded in the eyes of the country. His is a high judicial office, and yet it is assumed that for the sake of putting a fee in his pocket he will hold an unauthorized useless inquest on a dead body. The censorship is an invidious office, and is as injurious to the magistrates as it is to the coroner. They are appointed by the crown; he is elected by the freeholders. The jurisdictions of the offices are sometimes conflicting. The coroner holds inquests in prisons, and in county lunatic asylums, which are under the control of the magistrates. The magistrates are not elected by the ratepayers; and their limitation of the expenditure on an institution which has the protection of the life of the people for its object is viewed with suspicion. No unseemly disputes appear to have arisen in boroughs where the coroners are paid by the representatives of the ratepayers.

All the expenses of the county coroners are now paid out of the county rates. They were formerly paid out of the poor rates it is believed, with the exception of the coroner's fees. And more inquests are now required than were necessary formerly, when violent deaths were of rare occurrence. The aim of the magistrates is apparently to keep down the county rates. But it has been seen that all the expenses of inquests amounted to 67,000l. This is a small portion of the county rate. The 324 coroners of the whole of England and Wales received 29,0681. in fees in the year 1856; or rather less on an average than 901. each. After deducting 91 coroners who held less than ten inquests each in the year, the incomes of the rest was about 123l. on an average. The highest income amounted to 1,692l. The mileage was fixed in the last century, and is evidently too low in many districts. The coroners pay the salaries of their deputy

coroners and clerks out of the above incomes.

Of all judicial officers the coroner appears to be paid on the lowest scale. Yet his office is subordinate to none in importance. Its requirements are high. He should inspire public confidence by his intellectual as well as by his moral qualities. Without a knowledge of medical jurisprudence in its extensive sense, it is impossible to conduct satisfactorily an inquiry into the causes of deaths, often surrounded by unusual obscurity. His duties are by no means attractive. He is liable to be called upon to hold inquests at all times. The inquiries are often protracted. It is his duty to view the dead bodies in all their revolting changes. His mind is conversant chiefly with deadly accidents; with the sudden deaths from which people pray to be delivered; with suicides; with infanticides; with manslaughters; with dismal murders, which no poet's art can turn into tragedies.

It is the men undertaking all these painful duties whose pay is constantly liable to be disputed by the magistrates. And no other judicial

officer is paid in the same precarious way. What would be thought of a proposal to make the pay of the county court judges depend on the number of their decisions, and to allow them to adjudicate only in such a number of cases as the county magistrates consider reasonable. The judges are not fined, as the coroner is, when their decisions are reversed. The chief coroner of England, the Lord Chief Justice, is not paid by fees; and instead of a precarious income he enjoys a certain salary, with a vested right in a pension. The coroner is paid by fees, which can be withheld by the justices; his income fluctuates; and when he is old and disabled, he has no pension to retire on.

The subject is so important that it should be inquired into. And the comparative merits of the pay by fees and by salary should be carefully weighed. The unseemly contention between two high classes of the officers of justice should be brought to a close. When the coroners' pay is placed upon a proper footing, several improvements might be introduced into the conduct of the inquest. Certain classes of cases should be laid down in which inquests should invariably be held; and others should be held on the coroner's responsibility. It should be proclaimed that the inquest involves no suspicion; as indeed its most important function is to dissipate unfounded suspicions. Without an examination of the organs of the body, and often without an analysis of their contents, the cause of death cannot be determined, either negatively or affirmatively. And this examination would be most satisfactorily conducted by one medical officer in each district, who would become by experience expert in manipulation, and sagacious in judgment. He might undergo, before his appointment, a special examination in medical jurisprudence, and be very properly the health officer of the district.

While all existing rights are scrupulously respected, and the selection is left in the hands of the freeholders, it would perhaps be found possible to diminish the exorbitant expenses of contested elections, and at the same time to secure adequate acquirements in the coroners. Physicians, surgeons, clergymen, barristers, solicitors, now undergo examinations. Why should not the future candidate for the office of coroner be required. to produce a diploma, certifying the possession of a competent knowledge

of medical jurisprudence?

These improvements would necessarily raise this important office to its proper dignity, and greatly increase its public utility. The causes of death would be ascertained. New safeguards of human life would be

> I have the honour to be, Sir, Your obedient and humble servant, WILLIAM FARR.

To

The Registrar-General.

REPORT

TO THE

REGISTRAR GENERAL on the INTERNATIONAL STATISTICAL CONGRESS at VIENNA, by WILLIAM FARR, M.D., F.R.S., D.C.L.

AT your instance Her Majesty's Government was pleased to appoint SIR, me as one of the two Delegates of England to attend the Third International Statistical Congress in Vienna. I was the colleague of Mr. Fonblanque of the Board of Trade.

I left London on August 22d, and upon arriving at Vienna learnt to my great regret that Mr. Fonblanque had had on the way an attack of illness, at Frankfort, and that his physician forbade his travelling any

The Congress met at mid-day on Monday, August 31st, in the Chamber of the Lower Austrian States. Several Ministers of the Imperial Government and official delegates from nearly all the principal States of Europe were present; besides about four hundred other members, chiefly, but not exclusively, Austrians and Germans. As soon as the meeting was opened, the Minister of Commerce, the Chevalier von Toggenburg, on the part of the Government, greeted the Members; and addressed them in a discourse, of which the following is a translation:-

" The capital of Austria had no sooner been selected for the place at which the Third Meeting of the International Statistical Congress should be held, than the Government, having obtained the gracious permission of His Majesty, immediately made the necessary arrangements for furthering to the utmost the object of the meeting. It wishes you success in your labours the more confidently, as it sees here so many representatives of science and of the various branches of administration, who have responded to our invitation.

" We welcome you then, Gentlemen, on the banks of the Danube. But first of all let me thank the Governments who by sending official delegates have shown how desirous they are to maintain for the Statistical Congress its true character, as a means of drawing closer the bonds uniting nations, by establishing the incontestable and uncontested

utility of its labours for the weal of the civilized world. "The idea of such assemblies has from the beginning been favourably entertained in Austria, and I trust that in the course of your investigations you will discover that in our Official Statistics we have not failed to take into account the previous decisions and wishes of the Congress.

"The object of these periodical Congresses is to arrive at uniform principles in conducting Statistical Inquiries, so as to render the comparison of their results possible; for, as one of the most distinguished founders of the Congress justly remarks, 'without the possibility of comparing observations, progress in the Sciences based on observation is

" In the position which the science of statistics now holds in every State of Europe, this alone is required for its completion. And in fact since statistics is no longer viewed as a mere theoretical science for the gratification of the curiosity of the learned; since, on the contrary, it specially subserves the practical ends of political society, and lends its service to administrations as well in determining the value of existing institutions and laws as in weighing measures not yet carried out; since statistics, I say, has obtained such an important place in our governmental system, your investigations are neither arrested by the fulness of its materials nor by the manifold nature of its subjects. It is, then, above all essential to establish such an order and subdivision of the materials as may render it possible to represent the observations in the several countries under the same point of view, and thus to establish truths and laws which the human mind could never divine by pure speculation.

"This is without doubt a great and difficult problem, and therefore deserving of the zeal with which you have undertaken its solution. If you make your observations the common property of all, if you impress upon them the stamp of a loftier truth, if you place the results deduced from the facts in a clearer light, will you not thereby aid the Governments in accomplishing their special mission, the improvement of the political condition and of the moral and material well-being of the people?

" And if you, through a uniform system of statistical tables and a uniform nomenclature, bring the Statistics of the various states nearer to each other, do you not share my opinion that this uniformity in the form will react on the material, and ultimately bring about an approximation in the laws and institutions? I can therefore safely say that this day, in the midst of us, you resume your labours and devote yourselves to the study of a problem in civilization, the solution of which, rest assured, will obtain the sympathy of all governments and the applause of all nations."

His Excellency then addressed the German members, and congratulated them on this first meeting of the Congress on German ground. He reminded them that the necessity of statistical unity applied with twofold force to Germany, and suggested that it would be a happy circumstance, if out of the meeting a more intimate connection arose between the Statistical Departments of German States. This would also promote the great end of the Congress. He then thus concluded his address:*

" I conclude, Gentlemen, by assuring you of the entire sympathy of the Imperial Government, which follows your labors with the greatest interest; and I express its sincere wishes that the third meeting of the Statistical Congress may be as rich in useful results as the two which preceded it."

His Excellency's speech was warmly applauded.

BARON CZERNIG, the President elect, occupied the chair; supported by the Official Delegates, who were nominated Vice Presidents. M. Quetelet, in a brief statement, described the objects for which the Congress was founded.

REPORTS of DELEGATES from the GOVERNMENTS of the STATES of EUROPE.

All the principal States of Europe, except Naples, have sent delegates to the Congresses. Sardinia and Prussia, however, sent no delegates to Vienna; Russia, Turkey, and Spain sent delegates to the Congress there for the first time. As is usual the delegates of those States gave an account of the national statistics.

^{*} Translated from the German Report in the Wiener Zeitung, No. 200. The first part of the Address was delivered in French.

DAOUD EFFENDI, the representative of the Sublime Porte, expressed the interest with which the first meeting of the Congress had been regarded in Turkey. And he anticipated the greatest advantage from the results of their deliberations, which would lessen the difficulties of the Government in the establishment of a system of statistics in his country.

As nothing would possess greater interest than correct statistics of this vast and important Empire, connecting Europe and Asia, so nothing probably would be more advantageous to the Sultan's Government.

His speech, characterized by brevity and truth, was well received. Than Daoud Effendi the Turkish Government could scarcely have had an abler representative. He is the author of an excellent classified arrangement of the Anglo-Saxon and other ancient German laws and institutes.

COUNT RIBALDO said that in Spain a central commission had been appointed under the presidency of the Duke of Valencia, which in conjunction with local commissions had been charged to take a census. This great statistical report would speedily be published; it had been drawn up with a special regard to the recommendations of the Congress.

BARON REDEN gave a short account of the statistical operations in

Brunswick.

M. Vernadzky, the Councillor of State who represented Russia, traced the statistical records of the empire from the year 1246 down to the present date; giving an interesting account of the various methods which

the Imperial Government employs in procuring information.

Peter the Great and Catherine—like Augustus in Rome, William the First of England, the Emperor Napoleon the First, and all great administrators,—perceived the importance of obtaining information in a statistical form, so as to be able to analyze all the forces and products of their dominions.

A statistical committee, M. Vernadzky said, was founded in 1802, and still exists. It is connected with 33 committees in the provinces; and the Minister of the Interior has since 1852 directed several expeditions for statistical enquiry to be undertaken. The statistical section of the Geographical Society and other bodies devote themselves to particular inquiries.

Russia is at present acting in the spirit which Tegoborski displayed, and is making laudable efforts to place on a sound footing the statistics of the empire—presenting on several accounts unusual difficulties to statistical inquiry. An improved census, which is the basis of statistics,

is likely to be soon undertaken.

M. HOPF, Finance Councillor, well known in England as the Manager of the Gotha Insurance Office, gave an account of Saxe-Meiningen,

Saxe-Altenburg, and Saxe-Coburg.

M. Rathgen reported that in Saxe-Weimar, ever since 1816, annual reports of the population, and of the births, deaths, and marriages had been obtained. The summary of the results was published in the State Manuals and the Weimar Zeitung, which contained also statistical reports on the property in land, on mortgages, and on finance; also judicial statistics.

MAYER VON KNONAU reported, that the Swiss Confederation had not, as such, any statistical department; and the absence of this had only been supplied by the unwearied industry of Franscini, the Minister of the Interior, in the contributions to the statistics of Switzerland, which were continued down to the date of his death. In the Cantonal Reports important statistics might be found, but they were of limited extent and view. Cartography had been diligently studied. In fine, both the Confederation and the several Cantons were devoting increased attention to physical statistics.

M. FAUL, Chancery Councillor, said that in Mecklenburg-Schwerin a statistical commission had been constituted of members of the principal

state offices in 1851. The commission had published various reports in the Mecklenburg Archives.

BARON BAUMHAUER mentioned that in Holland medical reform bills had been introduced into the Chambers, and that it had been proposed in a public burial bill to render the grant of medical certificates of the cause of death compulsory. This bill had not yet passed. A grant of 5000 florins would be asked for with a view to establish a central commission of statistics. An essential improvement of the census law is in preparation. The statistics of Holland—it may here be remarked—occupy a high place, from the value of their information, their form of publication, and the able commentaries of Baron Baumhauer.

Professor Wappäus said that in Hanover a new director of the statistical department had since 1855 introduced great improvements in the statistical publications of that kingdom. The two last publications gave the results of the censuses of population 1852-5, and of the enumeration of the cattle in 1853; also returns of deaths in 1853-5.

Baron Sick stated that in Wurtemburg a central statistical commission had been formed by attaching representatives from the several offices to the Statistical and Topographical Department. The commission could take up any subject and meet at any ministry. Among its labours may be mentioned the summary of the births and deaths in the years 1846-56.

Professor Aschehoug, of Norway, said that the statistical office there embraced all branches of the administration, except the administration of justice, public education, and certain branches of finance. It is occupied mainly on the census of 1855, the statistics of industry, commerce, shipping, and the returns of births, deaths, and marriages. The land valuation had, on account of its practical bearing, attracted great attention. The statistics of this fine people are full of interest.

Under the regulations the business of the Congress was transacted either in German or in French. At this stage I made the following

report on the progress of official statistics in England :-

"L'Angleterre dès la première réunion du Congrès International de Statistique a toujours compris son importance et sa grande utilité. C'est ainsi que le Gouvernement de Sa Majesté la Reine a nommé deux représentants à Vienne comme à Paris. Malheureusement mon collègue, M. Fonblanque, tombé malade en route, ne peut assister à nos réunions. Vous regretterez avec moi, Messieurs, son absence et la cause de cette absence. Il avait preparé une note sur le progrès de la Statistique Commerciale en Angleterre depuis la seconde réunion du Congrès. Avec la permission de l'Assemblée je vous en donnerai tout à l'heure lecture en Anglais. En ce qui me concerne je ne vous entretiendrai que des changemens qui ont eu lieu dans la Statistique Officielle depuis la dernière réunion du Congrès—et dont quelques uns sont dus à vos delibérations.

"L'état des recettes, des dépenses, et de la dette publique est publié

annuellement depuis longtemps, et avec beaucoup de détails.

"J'ai l'honneur de mettre sous vos yeux un exemplaire de l'État Financier (Finance Accounts) pour l'année qui a fini le 31 Mars 1857. Vous y verrez que les recettes se sont élevées à 75,350,825 l., ou à peu près à 753,508,250 florins. Voilà les revenus enormes que le peuple a voulu voter par ses représentants, et qu'il a pu vouer sans gêne, à la chose publique sous l'empire vivifiant de la libre concurrence. Les dépenses n'ont été que de 68,097,287 l, ou à peu près de 680,972,870 florins. L'intérêt de la dette publique a été 28,681,177 l., ou à peu près à 286,811,770 florins.

"J'ai l'honneur de placer sous vos yeux d'autres documents entièrement nouveaux ; ce sont les Rapports raisonnés de l'administration des Douanes, des Recettes perçues à l'intérieur ; et du produit de la Poste. On y trouve des explications et des résumés historiques d'un très grand intérêt.

"Je dois reconnaître que la classification des faits n'a pas été inspirée par la statistique; et qu'il y manque notamment le Tableau de la fortune de

Statistical Congress at Vienna.

l'État, dont parle M. le Chevalier Hock dans sa note lumineuse, et dont nous serons, sans doute, unanimes à reconnaître la nécessité. Des comptes communaux sont publiés annuellement par l'administration des pauvres. D'après le dernier de ces comptes les recettes de 1856 pour l'Angleterre et le pays de Galles étaient de 8,496,458l., ou à peu près de 84,964,580 florins; les dépenses de 8,212,012l., ou à peu près 82,120,120 florins. Cette somme ne comprend pas les dépenses des routes de tout genre, ni quelques autres dépenses locales.

"Pour la rédaction de ces divers états je crois que nous profiterons

largement des travaux de la troisième section.

"Il faut constamment se rappeler qu'en ce qui concerne les finances de l'état il ne saurait y avoir de terme moyen entre le silence absolu et la publication franche et loyale de la vérité. Les capitalistes peuvent toujours faire payer cher le silence, et encore plus cher l'imperfection des comptes publics; ils nous pardonneront, si, dans l'intérêt de la science, nous leur enlevons à jamais cet avantage, qui, vraiment, à la fin, not enriches them, and makes us poor indeed.

"En ce qui concerne l'Irlande et l'Écosse des rapports annuels font connaître les superficies consacrées aux diverses cultures, et contiennent des évaluations plus ou moins exactes sur les produits agricoles, et sur le

nombre des animaux domestiques.

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"Lord Stanley d'Alderley, Ministre du Commerce, a compris toute l'utilité de l'extension de la statistique agricole à l'Angleterre, proprement dite, et nous esperons que dans l'intérêt de l'agriculture même, la législature adoptera le projet de loi qui lui a été soumis à cet effet par M. Caird, agronome Anglais des plus éclairés. Je mets sous vos yeux un exemplaire du Rapport sur les produits agricoles de l'Irlande en 1855.

"Lord Brougham, prenant en considération particulièrement les recommendations du Congrès de Paris, a soumis un projet de loi sur la statistique judiciaire à la Chambre des Pairs; et M. Redgrave a inauguré la réforme de cette statistique dans l'Angleterre. Je dépose sur le bureau du Congrès

un exemplaire de la première partie de son travail.

"Nous possédons de très bonnes cartes à l'échelle de 1-10560 pour l'Irlande, et de bonnes cartes pour la plus grande partie de l'Angleterre, et pour une partie de l'Ecosse à l'échelle de 1-63360. Conformément aux recommendations du Congrès de Bruxelles le Gouvernement de sa Majesté s'est déterminé à faire dresser des cartes générales à l'échelle de 1-2500, et des cartes des villes à l'échelle de 1-500. Déjà les cartes de plusieurs comtés et de plusieurs villes ont été dressées sur ces échelles. Ce travail a été malheureusement suspendu. Les avantages qu'offrirait une carte de l'Europe à une échelle uniforme sont évidents : ils ont été démontrés à la Chambre par le Vicomte Palmerston; et nous croyons qu'ils seront appréciés par la commission royale qui est chargée de l'examen de la question. Une grande majorité des savans de l'Angleterre a exprimé des vues qui sont en complet accord avec celles du Congrés. Je dépose sur la table le dernier Rapport du Colonel James : il contient des specimens rémarquables des cartes que l'on a déjà executées et des réductions à l'aide de la photographie.

"Le Registrar-General vient de publier son 18me Rapport, et il prie le

Congrès d'en accepter deux exemplaires.

"Je me suis occupé dernièrement d'une enquête sur laquelle je demanderai au Congrès la permission d'appeler son attention; c'est l'organisation du travail,—ou plutôt la classification de la population par professions. La quatrième section du Congrès rendra des services des plus importants; elle a en vue particulièrement les produits de l'industrie: l'enquête dont je parle regarde spécialement la disposition et la condition variable des hommes, -maîtres et ouvriers. Je dépose sur le bureau notre questionaire. Je dirai seulement que nous avons commencé notre enquête par la profession des mineurs, qui sont en grand nombre chez nous. En 1851 on en a compté deux cent cinquante deux mille, dont 182,180 travaillaient à l'extraction de la houille.

"Je ne dirai rien quant à présent de leur condition économique. Je me bornerai à faire connaître que ces hommes intéressans sous tant de rapports à l'égard de leur santé souffrent beaucoup dans certaines circonstances et en aucune manière dans d'autres. La mortalité sur 1000 dans quelques districts à l'âge de 20-40 est de 19 ; c'est le double de la mortalité de la population mâle générale aux mêmes âges. On croirait d'abord que cette mortalité exceptionnelle est due au travail souterrain : point du tout; car dans d'autres comtés, ou les mines sont sur la plus grande échelle (Durham et Northumberland), la mortalité n'est que de 8 par mille. Nous ferons connaître les causes de l'excès de la mortalité; et il vous sera évident que ces causes ne sont point du tout inhérentes à ce genre de travail ; qu'elles peuvent au contraire disparaître de l'industrie

"Nous venons de faire aussi des recherches recentes sur la mortalité de nos armées; et j'éspère que le Congrès voudra bien en prendre connaissance. Il serait vivement à désirer que des recherches semblables fussent faites sur toutes les armées de l'Europe. Le soldat Anglais, comme vous savez, se trouve dans tous les climats; et la mortalité qu'il a éprouvée pendant les dernières années est de 33 par 1000. La mortalité des troupes en Angleterre est de 18 sur 1000 ; tandis que la mortalité de la population mâle aux âges correspondants (20-40) est de 9 sur 1000. Ainsi la mortalité des troupes est telle que le paysperd deux hommes où il ne devrait en perdre qu'un, suivant la loi de la mortalité naturelle. Constatons si les faits sont les mêmes dans les autres pays? C'est à la statistique de répondre. S'il en était ainsi on pourrait eroire peut-être que le soldat vivant paisiblement en garnison est soumis inévitablement à une mortalité double de celle des autres hommes. Des recherches faites chez nous démontrent cependant l'existence des causes bien évidentes de la mortalité excessive du soldat; et quelques unes de ces causes peuvent être éloignées, notamment l'encombrement des casemes. Comme membres du Congrès nous ne saurions être partisans de la paix à tout prix, et encore moins de la guerre à son prix actuel : nous ne devons même pas discuter ces questions; mais s'il nous appartient d'employer la statistique à l'amélioration de la population civile nous pouvons à plus forte raison l'appliquer à améliorer l'état sanitaire des armées. Dans ce cas nos soldats pourraient bien continuer à mourir sur le champ de battaille, mais il succomberont en moins grand nombre qu' à présent aux maladies qui remplissent les hôpitaux militaires, et dont ils ont été atteints faute de recherches statistiques.

" Avec votre permission, M. le Président, je vais maintenant donner lecture au Rapport de mon ami M. Fonblanque tel qu'il l'a écrit, c'est à dire en bon Anglais, au lieu de le traduire en mauvais Français. Vous verrez que l'Angleterre s'est vraiment associée à vos honorables travaux ces travaux qui ont commencé à Bruxelles sous les auspices de l'un des premiers statisticiens de l'Europe—qui ont pris un grand développement en France-et qui recevront, je crois, un nouvel élan des lumières et de la coopération du Gouvernement de ce vaste Empire, qui nous a reçus dans sa ville capitale avec tant de bienveillance. Nous apprécions tous le "Wilkommen an den Ufern der Donau" que M. le Ministre du Commerce a bien voulu nous adresser hier."

REPORT of Statistical Progress in the Department of the BOARD of TRADE, by A. W. Fonblanque, Esq.

Since the meeting of the second International Congress in Paris the Statistical Department of the Board of Trade has, in addition to its usual serial accounts, published a volume of the general resources and trade of the British Colonies and Dependencies, and also an abstract of the

Statistical Congress at Vienna.

Statistics of the Hanse Towns; Holland, with Java and Sumatra; France,

and Belgium.

The Monthly Accounts of the Trade and Navigation of the United Kingdom have been completely revised and greatly enlarged and improved since 1856. The most important new feature is the introduction of the principal countries from and to which the chief articles of British Trade are imported and exported; and a Quarterly Account of the Declared Value of the British Exports to each Foreign Country and British Possession has been appended during the present year.

In addition to these improvements steps have been taken for ensuring the issue of the Monthly and Annual Trade Publications at the earliest possible period, the Government having authorized several measures in various departments for expediting the collection and compilation of the

particulars contained in them.

The most important work published by this Department, "The Annual Statement of the Trade and Navigation of the United Kingdom," is now issued within ten months after the close of the year to which it relates, but will, in future, most probably be issued at a much earlier date.

The Annual Trade Volume of France is usually published within eight

months after the close of the year.

The Meteorological Department of the Board of Trade, under Admiral

FitzRoy, was established early in 1855.

During so short a period as has since elapsed much production could not be expected, as time has been devoted to the collection and preparation of materials rather than to their publication, yet some advance has been

A series of fourteen large wind charts for most parts of the world has

been compiled.

A quarto volume of reduced and tabulated observations, with various papers and diagrams, has been published; and a full report of the state and progress of the work undertaken has been laid before Parliament.

More than two hundred ships in the mercantile navy, and nearly all the ships of war in commission, are now supplied with tested and reliable

instruments, besides books and charts, at the public cost.

The captains of most of those merchant ships, and some of the men of war, have already returned a large number of well-filled and valuable meteorological registers.

There are in use about sixty collecting books, adapted to the various

subjects and parts of the world.

(Papers by Admiral FitzRoy and by J. H. Brown, Esq., Registrar of Merchant Seamen, forwarded through Mr. Fonblanque, were handed in.)

The meeting, at the instance of the President, expressed its regret at the

absence of Mr. Fonblanque through illness.

M. HEUSCHLING reported that the Belgian census, placed on a new and better footing, was taken on 31st December 1856. The general results are already published. They were deduced from the returns by a subcommission under the direction of M. Visschers. An improvement in reporting the causes of death is now in operation. In continuation of the decennial report on the whole statistics of Belgium an annual report is to be published; the first number has recently appeared. Belgium still maintains its eminent position by these publications.

On the third day Baron Lasser presented, on the part of the Minister of the Interior (Baron Bach), a work by Dr. Wurzbach, in two volumes, on the statistics of Austrian literature, and expressed a hope that the

statistics of literature might figure in the next program.

M. LEGOYT, who is at the head of the statistical department in France, and has greatly contributed to the recent progress of statistics in that empire, then gave a rapid sketch of the official statistics. Napoleon I., who

happily defined statistics—as the complement of the financial budget the budget of things (budget des choses), founded an organized statistical department in 1802. Since the peace it has published several remarkable works; some periodical, others occasional. The periodical publications include (1) the finance returns, (2) the conscription reports, (3) the return of French imports and exports, and other foreign commercial returns, (4) the mineral statistics, (5) a return of the Minister of Finance of the tonnage and voyages of vessels upon navigable rivers, (6) colonial statistics, (7) statistics of friendly societies, which through the encouragement of the government have grown up everywhere lately as if by enchantment, (8) criminal statistics (since 1825), (9) the judicial statistics of the civil courts, (10) prison statistics. Among the occasional publications M. Legoyt named the returns of births, deaths, and marriages, as well as the census; which have latterly been greatly extended and improved. The results of the census of 1856 will be published early in 1858. A new series of agricultural statistics is in the press, and will show the progress of agriculture since 1840. The statistics of insanity 1851-3 will speedily appear; so will returns of the charitable institutions, and their results. The railway statistics have been published on the plan laid down in the Paris program. To Count Dubois, who was present, M. Legoyt gave the credit for this admirable work. The valuable educational return is unfortunately only published at rare intervals. The great map of France by the Corps Impériale d'Etat Major is nearly completed; reduced lithographic copies will soon be published. The statistics of the charitable institutions, by M. Davenne, as well as the celebrated work on the industrial statistics of the capital, by M. Horace Say, are full of interest, and have a semi-official character.

"J'espère," M. Legoyt concluded, "que vous y aurez trouvé la preuve que l'intérêt scientifique occupe au moins une part égale, si ce n'est supérieure, à l'interêt administratif, dans ces enquêtes si nombreuses, si variées. Je crois d'ailleurs ne rappeler qu'un fait généralement admis, en disant que la France ne s'isole jamais dans ses travaux; qu'elle n'y cherche jamais une satisfaction exclusive à des besoins purement nationaux. Je crois, au contraire, qu'il est de la mission providentielle de mon pays d'embrasser toujours le plus vaste horizon possible, et de mettre sans cesse son activité, son intelligence, son ardente initiative au service des intérêts generaux de l'humanité."* (Applause).

The Scandinavians are by nature statisticians. Sweden has undoubtedly taken the lead of all other countries in its official statistics, which date from the middle of the last century. The tables have from the first been clear and well arranged, the facts well selected. Improvements, however, are required by the progress of statistical science; and the Swedish government has shown every disposition to maintain its position, by establishing a new statistical office on a liberal footing, at the head of which Dr. Berg is placed. The report of the population returns of 1851-5, founded on the old basis, is in several respects new, and shows that Dr. Berg understands and is able to maintain the statistical fame of Sweden; which supplied Dr. Price with data for the construction of life tables at a time when England and France were entirely destitute of such materials. The report on the cholera, the extension of meteorological stations along the telegraph lines, the geological survey at the expense of the state are also noteworthy in Sweden.

Denmark and Norway, like Sweden, have able statists. Privy councillor David, of Denmark, stated that the results of the census of 1855,

 $^{^{*}}$ M. Legoyt has published his statement, of which I have availed myself in this analysis. For the statements of the other official Delegates, I have relied on the reports in the Wiener Zeitung, which though brief are, I believe, substantially correct.

and the commercial and shipping statistics of 1854 would speedily be published; the latter would exhibit the destinations * of vessels, which had so often been desired. The learned Danish statist exhibited a means of expressing the density of population by means of curves.

Dr. ENGEL, the representative of Saxony, has placed the official statistics of that country among the first in Germany; but he unfortunately made

no report of the recent progress of Saxon statistics.

Ministerial Councillor Dietz reported briefly on the state of statistics in the Grand Duchy of Baden, and the encouragements to their study.

Bavaria, by its publications under the direction of State Councillor BARON HERMANN, still maintains in statistics a distinguished place in Germany. It has a grand map of the kingdom in 100 sheets, and a reduced topographical map of 15 sheets, Every proprietor can have for a small sum any of the 26,000 field maps. Among the most interesting recent publications of Bavaria, Baron Hermann enumerated the reports on charities; on the properties of public institutions and communes; on criminal and police statistics (1849-55); on the post offices, railroads,

steam navigation; on mines, manufactures, and salt works.

The President BARON CZERNIG concluded these communications by a luminous exposition of the recent progress of statistics in Austria. The question of the nomenclature of fatal diseases was discussed in Paris. The Minister of the Interior referred the nomenclature to the Vienna College of Physicians, who approved of its principles. It figured in the program and would be reported on by the first section. The railway accidents of 1856 are already compiled on the plan laid down at Paris; so are also the statistics of the roads of Carinthia. Since 1853 the reports of the state railways have been most judiciously planned and most comprehensive: they have been applied for by other states. Under actual circumstances it has been held that agricultural statistics could be most satisfactorily collected through the agency of the agricultural societies, which exist in almost all the crown provinces. The Minister of the Interior has taken active steps in the matter, and in consequence many of the societies are already at work. I may cite for instance the returns of Bohemia, which are under collection by 2000 delegates in every part of that kingdom. Similar returns have already been collected in Styria and in Moravia. M. Fleury in an elaborate report lays it down, that in order to render the foreign trade returns really international, four things are necessary. (1.) The publication must immediately follow the close of each period. The Austrian Government has endeavoured to give effect to this principle: within six weeks of the end of the year the quantities and values of all exports and imports are published. This is not an easy matter in a monarchy which has to employ six hundred custom-houses on its long boundary line extending from the Bukowina to Lombardy. Each office makes monthly returns to the statistical department where they are grouped and published monthly, with a summary at the end of the year. A more elaborate report showing the countries from and to which goods proceed, with comparisons between the returns of past periods, appears every year within twelve months of its close.

(2.) The annual returns should all date from January 1st. The Austrian returns did date from November 1st, which is the beginning of the official year; but in compliance with the vote of the Paris Congress, the returns of 1855 are for that year, and will continue to be for the

civil years dating from January 1st.

(3.) The same weights and measures should be used to express quantities. The Austrian Customs are now levied under the same laws as those of the Zollverein, and the pound weight in use is the half-kilogram. So that the metrical system is recognized in Austria.

(4.) A general summary showing the commerce of state with state should accompany the report. Such a resumé is found in the Austrian

The subject of judicial statistics is before one of the sections. I merely remark that the formulary for civil cases is completed; it is most comprehensive. The form for criminal statistics, with additions and improvements is in readiness. The judicial registry of criminals and of their crimes in their parishes, with a view to the distinction of recommittals is in operation in Austria as well as in France; and negotiations are in progress to procure the necessary interchanges with France and the German states. The forms in use at lock-up houses and prisons have been improved, so that they show the period of arrest and imprisonment in conformity with the recommendations of the Paris Congress. A return has been called for by the Minister of Commerce of the savings banks and insurance societies in the whole empire.

The statistics of the city of Paris are well known. They are models. The common council of the city of Vienna, to show how highly it appreciates the Congress, and how much it is gratified with its meeting here, determined to undertake a work of the same character; the first part will give the members an idea of the undertaking which the municipality has entered on, and has placed under the guidance of the Burgomaster. When complete it will give as exact an idea of our city as we can at

I come now to the last part which occupied the Congress in Paris. I mean the establishment of a central statistical commission in each state. Though this point may not have attracted the greatest attention, its importance becomes every day more evident, whether we consider the difficulties inherent in statistical inquiries, or the practical bearing of their results on the measures of governments. The conviction must ere long be universal, that without the establishment of a central commission or some such institution, the national statistics will reach a point at which they will remain stationary. And, Gentlemen, to stand still, is to retrograde. (Und meine Herren, stationär bleiben ist Rückschritt).

The half of this institution has existed, as far as Austria is concerned, since 1840 in our statistical office; which is so organized that it embraces all branches of the administration, and if all branches have not yet been dealt with, this is due to the inadequacy of the force at our disposal. But it cannot undertake the second and far weightier part of statistical operation. And if statistics are to obtain that influence which they merit in the Government; if they are to draw strength from the practical life of the Government, and from the life of the people; then must statistics enter into integral union with the Government. But a central commission, in which the several branches of the administration are represented, is the sole practical means of rendering this union durable and fruitful. So in Austria the way to the establishment of a central statistical commission is opened, but the final decision has not yet been taken.

Allow me to mention certain measures which also show the estimation in which the Austrian Government holds the Congress. Three ministers have undertaken important works, which, without the stimulus of this meeting in Vienna would probably never have been begun, would not have been begun so soon, or would have been carried out on plans far less comprehensive.

I take first the Home Office. There is probably no operation which will influence the national economy more than the disburthening the land in Austria, the disencumbrance of the soil in so large a portion of Central Europe, where now entirely new principles prevail in commerce and in agriculture. If it is important to ascertain the nature of the incumbrances

^{*}frachtfahrt. The return which appears to be here referred to is intended to show the countries from which vessels arrive and to which they are bound.

of the land, it is also difficult, and indeed next to impossible for anybody but this special department to comprehend all its intricate details. We must thank the Minister therefore for the work, of which you have received the first part, and of which the second will shortly appear. A most comprehensive work on the statistics of companies and societies of every kind in Austria has been prepared by our honourable colleague Professor Von Stubenrauch. A third work on the literary statistics of Austria has already been brought under your notice.

The Finance Minister has also, out of the rich archives of his office, placed before you a mass of valuable documents, which I hesitate not to say, are the most perfect of the kind that have ever appeared. I am not aware that in reference to the finance and the national economy of any state, such detailed information has ever yet been published. You can only understand the full value of this work when it is in print, and you receive the copy which I can venture to promise shall be placed in the hands of every member of the Congress. (Applause).

The Minister of Justice has also directed the criminal statistics of the

year 1856 to be compiled and printed for your use.

His Excellency the Minister of the Interior has been pleased to declare that when the first section has reported on the returns of the causes of death, and the Congress has come to a decision, a law shall be immediately promulgated carrying into effect a measure based on that decision (great applause). It is I believe, gentlemen, the first time that one of the results of your labours has been carried into immediate effect in a great and powerful State.

His Excellency the Minister of Justice also announces his intention, if the form for criminal returns receives your sanction, to submit it to His Majesty as the basis of the regulations under which the returns are to be

compiled.

I will now pass rapidly in review the works upon which the Statistical Department has been engaged during the two last years. I have first to announce to you the completion, -or, at least, the partial completion, -of a work which has been 16 years in hand; it is the ethnographical map of the monarchy, with a commentary in three quarto volumes, lying on the table.* The map is complete, and is published in two forms. The commentary embraces the eastern lands and the Archduchy of Austria. The German portions of the State are nearly completed. The Southern and the Northern Sclavonic States stand over for the present.

To this a work is attached for which I bespeak your attention; as I know you will all take an interest in the progress of this great State, in the midst of which you are assembled. The work, to which I have given the title "Neugestaltung von Oesterreich" (Reforms,-or, rather, the New-formation,-of Austria), constitutes an integral part of the Ethnography, but will appear also in a separate volume. Its object is to show in a compressed form all the great reforms, mightily working in the life of the people, as well as in the organization of the State of this kingdom, from the year 1848 down to the present day; also, where it is possible, to exhibit the result of these reforms in Statistical Tables.

I can now only notice the continuation of the great series of tabular returns,-of which nine parts are completed,-in which the returns of schools and educational institutions have been subjected to an entire revision. The map of the Danube is on the table, so are several numbers of our statistical memoirs, containing a complete account of the iron manufactures of Carinthia and Carniola, a commencement of the industrial statistics of Austria, with maps and other matters, which, as they are before you, I will not enumerate, for I have already occupied too much of your time.

The proofs which the able president's speech contained of the activity of the Imperial Government in carrying on statistical research, and in promoting the objects of the Congress, elicited loud and long continued

In any European scientific association Italy should naturally hold a high place. The learned Professor Nardi of Pavia and the Chevalier Zuccagni Orlandini of Tuscany represented Italy at the Congress. Bertini of Turin, who represented Sardinia in Brussels and Paris, is dead: he was a learned, zealous, sincere, honest man. His place was not supplied by any other representative from a State which has published a

valuable series of official statistics.

The absence of the Chevalier Dieterici, the official delegate who represented Prussia at previous Congresses, was greatly regretted, as it deprived the Congress of one of its most estimable members, and left a country which has contributed most essentially to the extension of statistics, without a representative. Professor Schubert and Mr. Otto Hübner of Prussia took an active part in the proceedings.

Count Ribaldo said a few words about the statistics of Chili; and expressed a hope that the Government of that country may be invited to

send a representative to the next Congress.

The absence of a representative from the United States of America was remarked and regretted, as some questions in science, particularly in relation to jurisprudence, might be elucidated by the statistics of that

It was recommended in the course of the proceedings that the following

questions should figure in the program of the next Congress:

(1.) The Statistics of Literature.

(2.) The Statistics of Agriculture and Forest-culture.

(3.) The Statistics of Banks and Credit Institutions.

And an amendment was moved by Privy Councillor Dr. Engel, on a motion of Professor Wolowski, to the effect that the official delegates to the next Congress should constitute a special commission, out of which a committee should be named to draw up a report to be read with the oral statements of the several delegates relative to the execution of the recommendations of the previous Congress. This amendment was carried.

Proceedings of Committees.

The work of the Congress was distributed among six committees, which sat in the mornings, and reported successively to the Congress in its

general sittings.

The absence of Mr. Fonblanque was here sensibly felt, as I could not attend the meetings of all the committees and make the necessary preparations for the general sittings of the Congress. Mr. Samuel Brown, the delegate of the Statistical Society, rendered me most important assistance; and Mr. Nassau Senior, who happened to be in Vienna. joined and assisted in the committees.

His Excellency the Chevalier von Toggenburg, Minister of Industry, Commerce, and Public Works was president of the preliminary commission.

Of the Congress as definitively organized, Baron Czernig was chosen President; the Official Delegates were elected Vice Presidents; Dr. Ficker and M. Louis Debrauz were secretaries.

SECTION I.—STATISTICS OF MORTALITY.

Presidents: Dr. Theodore Helm, Medical Councillor, Director of the General Hospital, Vienna; Dr. William Farr. Secretary: Dr. Maurice

This section discussed in detail the measures necessary to secure accurate returns of the causes of death. It revised the nomenclature.

 $[\]ast$ " Ethnographie der Oesterreichischen Monarchie" von Karl Freiherrn von Czærnig-Wien, 1857.

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which is substantially the same as that which has been in use in England for some years. It came to no decision on the question of classification, except that it should be for the present left in the hands of the Statistical

Departments. The Section decided :-

(1.) That the cause of every death should be investigated, and that it should be returned by the medical attendant. In Austria the medical attendant is bound by law to return the cause of every death which has happened in his practice; and the body is inspected by a sanitary officer (todtenbeschauer).

(2.) Where no such officer exists, the Section laid it down that in the interests of sanitary police and of justice, it should be ascertained through medical agency, if possible, whether death had actually occurred from natural causes, or otherwise; and where the person deceased had not been attended by a medical man, the cause of death should be especially investigated by the sanitary inspector, or a person appointed for the purpose.

(3.) That the several States should adopt the forms of certificate

appended to the report.

(4.) That the above measures would be illusory, unless in each State a special medical and statistical department were created for the classification, verification, and discussion of the facts in periodical reports.

The three first decisions of the Section were adopted by the Congress; the fourth, at the suggestion of MM. Legoyt, Farr, and Stubenrauch, and after some remarks by MM. Hopf, Varrentrapp, and Helm, was modified: it assumed this form—that the materials collected in each State should undergo revision by a medical officer specially appointed, and be by him arranged and discussed in reference to their bearings on statistics, medicine, and the public health.

Forms for statistics of societies and institutions for the benefit and relief of the sick were proposed by Dr. Helm—the excellent President of the Section—and by Dr. Stubenrauch. Dr. Seligmann, who is acquainted with English scientific literature, made some excellent general remarks on the statistics of the infirm, and on the statistics of epidemics. Dr. Riedel discussed the statistics of lunatic asylums. Several of the forms which they proposed were approved. I must refer to the official report for

II. The Section of Judicial Statistics adopted, with some slight modifications, forms of criminal returns which had been prepared by the Austrian Commission. The Austrian Government was requested to put itself in communication with the Governments of other countries, in order to obtain the information necessary to enable the next Congress to discuss and settle forms for the statistics of the civil courts. The Chevalier Hye inserted an interesting note on judicial statistics in the program; Baron Czœrnig, in another note, ably discussed the statistics of the actual distribution of real property and its charges, as well as of the annual changes in its possession and its burthens. The administration of justice on one uniform system in the various provinces of Austria was carried out in 1856; and the judicial statistics of that year were laid before the Congress. Professor Wolowski, of Paris, read the highly interesting report of this committee on the subdivisions of landed property, —its burthens,—and their changes.

III. Section for Financial Statistics. President: RITTER VON HOCK. Vice-Presidents: Governmental Councillor, Schubert of Prussia; M. Cabansky, Secretary to the Imperial Academy of St. Petersburgh. Secretaries: Dr. Otto Hübner, of Berlin; M. Buchatschek, of Vienna.

An able clear note by the President on this great question appeared in the program; with a classification of the various items of income and expenditure. Besides these items a classified tabular view of the public property and debt, at the beginning and at the end of the year, was declared to be indispensable in the program.

The difficulties of accurate financial statements were discussed in the Section; and the illusions and imperfections of nearly all the current financial statements were discussed with a view to future amendments.

Baron Hermann, of Bavaria, pointed out, in an acute and comprehensive statement, the numerous latent expenses which never figured in the budgets of states. Thus, under the conscription system men are compelled to serve for less than the market price of their labour; which is indicated by the sum required to obtain a substitute. Then consider the amount of taxation which the consumers pay under the various vicious systems of protection.

The report and the forms of this Section deserve to be carefully studied.

IV. Section. Statistics of Industry.—BARON CZŒRNIG was the President of this Section. He wrote the comprehensive introduction to the subject in the program, embodying the decisions of a preliminary committee, which consisted among others of Baron Czœrnig, the President and the Secretary of the Vienna Chamber of Commerce, Professor Jonak, and several eminent manufacturers.

The classification in eight groups and thirty-four classes of industrial products appears to be practical and well-considered; it is treated in the first part of the notice. In the second part of the paper the means are discussed of determining by a general method the quantity and the value of the industrial products of each class. The method described was tried twelve years ago in Austria; and the results were afterwards confirmed by exact inquiries for fiscal purposes. The first part of a new inquiry, conducted on the same principles, is published. The third point had reference to industrial maps, of which the Austrian Statistical Department exhibited specimens at the Universal Exhibition in Paris. The program contained also a classification of the raw materials of industry into three groups, seventeen classes, and several subordinate sections. This part of the classification, which appears to be excellent, was, as it appears to me, on inadequate grounds, not passed by the Section.

M. Engel and M. Visschers were the reporters of the Fourth Section.

V. Section. Statistics of Education.—The introduction to the proposed comprehensive form was drawn up by Dr. Springer. The sectional report proposed a few amendments, and a condensation of the original proposals. It was written by Dr. Ficker and Professor Nardi. The returns will furnish much valuable information; but the classification may be further improved by a separation of the facts which can be expressed in figures, and recorded in Tables, from the rest of the required information.

VI. Section. Connection of Statistics with the Natural Sciences: Ethnographical Statistics.—His Excellency Baron Baumgartner was the President of this Section, which comprehended among its members some of the most distinguished men of science in Austria, such as Hauslab. Ettingshausen, Kreil, Simony, Unger, Fitzinger, Hauer, and Fritsch, besides M. Quetelet and other foreign members. The work of this Section was in the hands of masters; it was new, and it was full of interest. It enumerated in a classification: (1) The elements with which the natural sciences must furnish statistics to enable that science to represent in the most complete form the various manifestations of social life. I will give here the definition of statistics—so often attempted—by Baron Baumgartner: "Statistics," he says, "embraces the facts having relation to social life, and deduces from them a representation of the condition of a given State; or it compares the analogous political forces of different communities. The facts of which the statistician has need are drawn from the observation either of nature and its forces in action, or of human action." Baron Hauslab happily adds, "It is a characteristic of statistics that it deals with measures, numbers, comparisons. It may be safely said, that where there are no ratios there is no statistics." (Ohne verhältnisszahlen, könnte man sagen, gibt es keine statistik). He discusses the applications of cartography and of graphic representation to statistical purposes with much ingenuity and method. Baron Czœrnig treats of ethnography in its statistical bearings.

PROCEEDINGS at the LAST MEETING.

The business of the Committees was brought to a satisfactory close by their reports. The only thing to regret in the arrangements was the late delivery of the program, which was placed in the hands of the members on their arrival in Vienna. By way of compensation, the program was ably drawn up by the members of the Austrian Commission. The principal subject (causes of death) with which the first section dealt, had been discussed before, and had been practically illustrated in England. The other questions were not only discussed in the program by experienced men, but were exemplified by works which the Austrian Government had undertaken and laid before the Congress in a form more or less complete. The notices and the works were substantial contributions to statistical science. The program was not a mere proposal, but a discussion of the general applicability of principles on which great statistical operations in Austria had been conducted.

The first meeting of the Statistical Congress was held in Brussels under the auspices of the Belgian Government. Upon the invitation of the French Government the second Congress was held in Paris under the Presidency of one of the Imperial Ministers. Vienna, the seat of the Austrian empire, had been visited; and here a general feeling prevailed at the close of the proceedings in favour of holding the next meeting in London. Mr. Fonblanque and I had been authorized by the President of the Board of Trade—Lord Stanley of Alderley—to express, if the Congress thought it desirable to meet in London, the readiness of Her Majesty's Government to receive them in the year 1859, the meetings being biennial; at the close of the proceedings on Saturday accordingly I gave the intimation, which was very favourably received. The subjoined extract from the official report of the proceedings shows precisely what took place in reference to this matter:

Extrait du procés verbal de la Cinquième Séance du Troisième Congrès International de Statistique. Samedi, ce 5 Septembre 1857.

M. William Farr, délégué du Gouvernement Anglais, prend la parole en ces termes, "Monsieur le Président, Il nous reste à décider de quelle manière notre quatrième session sera organisée. À ce sujet j'ai une proposition à faire à l'assemblée. Elle est à peu près la même que celle qu'a voté le Congrès de Paris. Elle est ainsi conçue: 'Le Congrès est invité à décider, que la commission Autrichienne d'organisation sera chargée, comme fut la commission Française en 1855, de déterminer dans quel pays et à quel époque se tiendra la quatrième session du Congrès International de Statistique.'"

Le Président met aux voix la proposition de M. William Farr ; elle est adoptée à l'unanimité.

M. William Farr, prenant de nouveau la parole, ajoute: "Ma proposition étant adoptée, j'ajouterai que M. Fonblanque et moi nous sommes chargés de déclarer, que si la commission Autrichienne décide qu'il est dans l'intérêt de la science que le Congrès tienne sa prochaine session à Londres notre Gouvernement veut bien le recevoir.

"Permettez moi d'y ajouter quelques mots de ma part. Je ne vous dirai pas que si vous venez à Londres la réception qui vous sera faite, sera aussi brillante qu'elle a été dans les villes impériales de Paris et de Vienne, mais j'ose dire qu'elle sera aussi cordiale (très bien!). L'Angleterre est hospitalière. Nos amis MM. Quetelet et Visschers vous diront que la première idée de notre Congrès, inauguré d'abord à Bruxelles, a pris naissance à l'Exposition internationale qui se tenait à Londres en 1851. Croyez bien que la statistique a encore dans cette ville des amis dont l'amour pour cette science et pour ceux qui la cultivent n'est pas refroidi. Londres est un peu loin de Vienne, et elle n'est pas si centrale quant à l'Europe que Paris, mais, messieurs, il faut bien que le Congrès et la statistique élargissent leurs bornes, et s'étendent au monde entier.

"Sur nos îles occidentales, mises en avant dans l'océan, des représentans des divers États de l'Amérique et des Colonies lointaines peuvent facilement se joindre à nous. Mais, dit-on, l'Angleterre est séparée du reste de l'Europe. En bien, messieurs, dans des temps déjà reculés, les Italiens, les Français, les Allemands, les peuples du Nord n'ont pas craint de passer les mers, et de fonder des colonies en Angleterre. Venez donc, messieurs, en Angleterre voir les enfants de vos ancêtres (applaudissemens). Et aux races diverses dont nous n'avons pas de représentans en Angleterre, je dirai, Venez nous voir en frères (très bien!); vous êtes certains de trouver l'accueil le plus cordial (très bien! très bien!)"

Le Président Baron de Czærnig.—"Je ne manquerai pas de porter à la connaissance de la commission organisatrice la proposition et le désir exprimés par M. William Farr; et je suis certain que l'accueil que l'une et l'autre ont déjà reçu dans cette enceinte aura de l'écho parmi les membres de la commission internationale."

M. Quetelet then moved votes of thanks to His Imperial Majesty for the gracious reception which he had deigned to give the Congress in Vienna; to His Majesty's Ministers, and particularly to His Excellency Ritter von Toggenburg, Minister of Commerce; and, finally, to the President, Baron Czernig, for the careful and impartial manner in which he had conducted the proceedings.

M. Visschers expressed the thanks of the foreign members for the reception which they had received in Vienna. Two languages had been employed with perfect ease, and without fatigue to any of the members.

After three cheers for the Emperor the third meeting of the Congress was dissolved.

Some Indirect Results of the Congress.

Without having for their direct object the promotion of peace or commercial advantages of any kind, the Congresses in Brussels, Vienna, and Paris have not only contributed to the progress of statistical inquiry, but have indirectly produced some beneficial results. Delegates from nearly every state of Europe have been brought together to discuss measures for carrying on inquiries by which their respective countries may be enabled to contribute most effectually to social science, and thus, as nations, become better known to themselves and to the rest of the world. The effect of this must be salutary; for the more people know of each other the more intimately they grow connected in interest and affection; ignorance being undoubtedly the main cause of the prejudices, the hostilities, and the isolation of civilized nations. The Congress, in the spirit illustrated at Vienna, not only tends to increase the friendly relations of governments with each other, but it engages them more or less in the promotion of a great international work,—the completion of the statistics of Europe.

The good effects of the union of the various countries of Europe in promoting a common object were seen at the great Exhibition of 1851; and they have not yet subsided on the continent. "Nobody," the Prince Consort then happily remarked, "who has paid any attention to the peculiar features of our present era will doubt for a moment that we are living at a period of most wonderful transition, which tends rapidly to accomplish that great end, to which, indeed, all history points, the realization of the unity of mankind. Not a unity which breaks down the limits and levels

the peculiar characteristics of the different nations of the earth; but rather a unity the result and product of those very national varieties and antagonistic qualities." *

AUSTRIAN HOSPITALITY.

After the business of the Congress was over the members were carried along the Vienna and Trieste railway by Neustadt to the Semmering, one of the greatest engineering works in Austria. The train ascends on a rising serpentine line over viaducts, and through many tunnels nearly up to the top of one of the Alps, when it plunges into a long tunnel opening over a valley of Styria on its way to Trieste. The traffic of Trieste is thus put in direct communication with Vienna and the Danube. This railway is also a military road, by which an Austrian army can now be speedily carried into Italy, and marched into Lombardy. At the entrance of the tunnel refreshments were spread under tents. After enjoying the views of the Alps around the Schneeberg and of the fine country extending to Vienna, the members were conveyed back to that city. On Monday the official delegates, with a few of the private members, had the honor to be presented by the Minister of Commerce to His Majesty the Emperor; who was pleased to express his pleasure at receiving the Congress in Vienna, and his approbation of their labors generally. He then in passing round addressed a few friendly words to each of the delegates. The principal foreign members were honored with invitations to dine with His Excellency the Minister of Commerce on Saturday or Monday. Prince Sapieha, who is well known, and is well acquainted with England, was one of the guests. The hospitality of Austria was not exhausted, for on Tuesday the members of the Congress were borne by a fine steamer of the Danube company (capital £3,000,000) down the magnificent river to Pressburg, in Hungary; where the members had been invited and were hospitably entertained by the mayor. Here, among other matters upon the tables, were labelled specimens of all the finest Hungarian wines; which might, I think, compete with any of the other wines in the English market. Besides Tokay there are several wines, cheap in the country, of very fine quality. Hungarian cattle, after having been driven to Vienna, are conveyed by railway to Hamburgh, where some are slaughtered for salting, and some are sent to England. Other commodities of equal value may probably now be transported from Hungary, with a profit, over the same route.

Baron Czernig undertook the management of the affairs of the Congress; and as he is an able administrator, or what in England would be called "a good man of business," the arrangements were admirable. He not only presided in the chair to the general satisfaction, but rendered the foreign members many friendly offices, and by his entire

conduct won their esteem.

His Excellency, Sir Hamilton Seymour, in the most obliging manner, rendered me all the assistance which I required.

I have the honor to be,

Sir,

General Register Office, December 1857.

Your very faithful servant, WILLIAM FARR.

The Registrar-General.

The following Index furnishes a reference to the Number of each DISTRICT in the topographical arrangement adopted in the Tables of Abstracts contained in the Report. the numbers running consecutively from 1 to 623.* In forming the alphabetical arrangement the principle is adopted of placing compound names in the order in which they are pronounced: thus, East Ashford will be found under the letter E, and not under A, as Ashford, East. 7

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^{*} Address at the Mansion House, March 21st, 1850, in "Addresses delivered on different Public Occasions by His Royal Highness the Prince Albert;" published by the Society of Arts, 1857.

^{*}Thus, the number of Marriages in the Aberayron District may at once be ascertained by referring, in the "Abstract of Marriages," to the District numbered 596 (see page 24); and in like manner the number of Births and Deaths, of Deaths at different Ages, &c. will be found by referring to the same district number in the appropriate Tables.

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