

CIRCULATION.—COUNTRY BANKS.

Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the SECOND QUARTER (April—June) of 1862; and in SCOTLAND and IRELAND, at the Four Dates, as under.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.			
DATES.	Private Banks. (Fixed Issues, 4·35.)	Joint Stock Banks. (Fixed Issues, 3·30.)	TOTAL. (Fixed Issues, 7·65.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2·75.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6·35.)	
1862.	Mlns. £	Mlns. £	Mlns. £	1862.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	
April 5	3,32	3,03	6,35	April 5	1,41	2,40	3,81	3,02	2,77	5,79	
,, 12	3,39	3,10	6,49								
,, 19	3,40	3,09	6,49								
,, 26	3,37	3,05	6,42								
May 3	3,34	3,03	6,37	May 3	1,52	2,44	3,96	3,15	2,71	5,86	
,, 10	3,26	3,03	6,39								
,, 17	3,33	3,02	6,35								
,, 24	3,25	2,94	6,19								
,, 31	3,19	2,87	6,06	,, 31	1,86	2,75	4,61	3,14	2,60	5,74	
June 7	3,16	2,86	6,02								
,, 14	3,15	2,85	6,00								
,, 21	3,13	2,84	5,97	June 28	1,63	2,63	4,26	2,88	2,51	5,39	
,, 28	3,12	2,81	5,93								

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

DATES.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	Paris.					Hamburg.					Calcutta.				
	London on Paris.	Bullion as arbitrated.	Prem Dis on Gold per mille.	London on Hamburg.	Bullion as arbitrated.	New York.	India House.	At Calcutta on London.	Hong Kong.	Sydney.	Standard Silver in bars in London.	pr. oz.			
3 m.d.	Agnst. Engd.	For Engd.	3 m.d.	Agnst. Engd.	For Engd.	60 d.s.	60 d.s.	6 m.s.	6 m.s.	30 d.s.	pr. oz.				
1862.															
Apl. 12 ..	25·50	pr. et.	pr. et.	0·4	par	13·8 $\frac{1}{2}$	pr. et.	pr. et.	112	d.	d.	d.	pr. et.	d.	
,, 26 ..	·50	—	—	“	“	·8 $\frac{1}{2}$	—	0·2	113	—	24 $\frac{1}{4}$	53 $\frac{1}{2}$	1 $\frac{1}{2}$ p.	61 $\frac{1}{4}$	
May 10 ..	·50	—	0·2	1 p.	·8 $\frac{1}{4}$	0·1	—	par	114	—	“	“	“	“	
,, 31 ..	·47	—	0·3	par	“	·8 $\frac{1}{4}$	—	—	“	“	“	“	“	“	
June 14 ..	·50	—	0·1	“	·9	—	0·1	115	23 $\frac{3}{4}$	24 $\frac{1}{4}$	“	“	“	61 $\frac{1}{4}$	
,, 28 ..	·52	—	0·3	“	·4 $\frac{1}{2}$	—	par	116	“	“	“	“	“	“	

JOURNAL OF THE STATISTICAL SOCIETY,

DECEMBER, 1862.

On the EARNINGS of AGRICULTURAL LABOURERS in SCOTLAND and IRELAND. By FREDERICK PURDY, Esq., Principal of the Statistical Department, Poor Law Board, London.

[Read before the Statistical Society, 15th April, 1862.]

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I.—Introductory.

The paper, on the “Earnings of Agricultural Labourers in England and Wales,” which I had the honour to read before the Society last year, concluded with these words:—

“ Since the publication of the English return, the House of Commons has ordered similar information to be laid before it in respect of Ireland and Scotland, in the same form and for the same period, as that we have just been discussing. If the facts are as fully

" given as in the original return, we shall then be in a position to institute some interesting comparisons with other parts of the United Kingdom."

The returns alluded to then, have since been issued. They contain the needful particulars for the purpose of the comparisons indicated. The present attempt is an endeavour to fulfil by their aid, the design held in the mind of the writer, though unexpressed at the time. The Scotch return, which bears the name of Sir Andrew Agnew as its mover, is presented to the public in a satisfactory manner; with this exception however, that four counties are entirely omitted from the paper. The Irish return, obtained upon the motion of Lord Dunkellin, is an excellent one in every respect. The particulars given are abundant; and each county is duly represented. Irish official statistics bid fair to hold their own against any which are prepared in Great Britain.

SCOTLAND.

II.—Classes of Agricultural Labourers.

The general description of the Scotch agricultural labourer falls under six classes. 1. the "crofter;" 2. the "cottar;" 3. the "farm-servant;" 4. the "day-labourer;" 5. the "hind;" and lastly, but by no means least, 6. the "shepherd." There are material differences in the fiscal, and in several respects, in the social condition of each class. The two first classes constitute the labouring portion of the community in the "Highlands and Islands." They are thus described by Sir John McNeill:—

"The *Crofters*, including under that designation all persons holding land directly from the proprietors at rents not exceeding 20*l.* a-year. In every district the great majority of the population consists of crofters. Besides the crofters, there is a class called 'cottars, who are numerous in some parishes and districts, and who either do not hold land at all, or hold only from year to year as sub-tenants.' 'The crofters and cottars,' says Sir John McNeill, 'constitute the great mass of the population.'*

The average yield of these crofts is generally stated to be six months food for a family of persons, with seed for the next year; but nothing beyond that, to meet the rent, buy clothes, or food for the remainder of the year.

Sir John McNeill, who visited the western district in 1851, has left on record so pleasing a description of the conduct, under great distress, of the labouring people in that part of the country, that I cannot refrain from transcribing the passage here:—

* Sir John McNeill "On the State of the Highlands and the Islands of Scotland," in 1851. Report presented to Parliament by Command.

"It is," says Sir John, "due to the working classes, in the parishes I have visited, to state that their deportment was uniformly civil and obliging, even in circumstances that might have produced feelings of discontent." *

Expectations having been fostered in the Highlands, that the Government would afford to the poor, the means of employment and subsistence, it became Sir John's duty to undeceive the people.

"Yet," he adds, "I did not anywhere observe a tone, a look, or a gesture that indicated resentment, or even irritation. They frequently argued freely, sometimes with considerable ability and subtlety, never with rudeness, and often with a politeness and delicacy of deportment that would have been graceful in any society, and such as perhaps no men of their class, in any other country I am acquainted with, could have maintained in similar circumstances."—(Sir John McNeill. "Highlands and Islands, Scotland," p. 5.)

The "farm-servant," and that name is borne both by men and women, works for wages, paid partly in money, and partly in board and lodging; the latter often afforded to him in the farm-house; but perhaps more frequently, in large barrack like wooden buildings on the farm called "boothies." Sometimes the "farm-servant" lives in a separate cottage provided by the farmer, who also supplies him with food for himself, and for his family, if he be married. The labourer thus remunerated is called a "benefit-man," and the payment in lodging and food his "benefit."* In the statistical survey of Scotland, a farm-servant's yearly money wages without "benefit," is stated to have been in 1843-4, 25*l.*; and with "benefit" 11*l.* 10*s.* The value of the "benefit" was, therefore, considered to have been 13*l.* 10*s.* In Dumfries the ploughman's wages being then 20*l.*; the "benefit" was valued at 8*l.* a-year.† With farm-servants, a preference in wages is had by the married man over the bachelor; because, the former has his wife, or some of his children to assist in the farm, at harvest or at other times of pressure, and for this advantage to his employer, he derives a larger reward. The distinction is brought out clearly in the return from Fifeshire. It is here only exhibited with regard to the ploughman; but it obtains with respect to other farm-servants.

Married Ploughmen are paid:

	Per Annum.	Per Annum.	
1860.	£ s. d.	1860. £ s. d.	
Money wages	17 10 -	Money wages	19 10 -
6½ bolls oatmeal, at 140 lbs....	6 10 -	6½ bolls meal, at 140 lbs. } per boll	6 10 -
Half gallon milk per day.....	4 12 -	Half gallon milk per day.....	4 12 -
36 cwt. potatoes, at 3 <i>s.</i>	5 8 -	Potatoes	1 -
House, garden, and cartage } of coals	2 15 -	Lodging, fuel, &c.	2 12 -
Beer and bread at hay, corn, and potatoe harvest, at 7½ <i>d.</i>	18 7	Bread and beer at harvest	18 7
	37 13 7		35 2 7

* "New Statistical Survey," vol. iv, pp. 31, 337, 383.

† Ibid., vol. iv, p. 252. Cummertrees parish.

The food allowances wherever returned, are set out in Table (V) in the Appendix. They are applicable to every sort of farm-servant.

Farm-servants, or farm-labourers as they are sometimes designated, are usually, though not always, hired by the half-year.

The "day-labourer" is paid wholly in money, at so much *per diem*; though he frequently obtains, in addition to increased wages at harvest, food from the farmer's discrete bounty, during that season of anxious contingencies.

The "hind" system prevails in Haddingtonshire and Berwickshire, and in some other parts of the south of Scotland. It is observed in the note to Sir A. Agnew's return, with respect to Haddingtonshire, "That two-thirds of the farm-servants in this county are paid " principally by grain. They have also generally the keep of a cow, " or allowance therefor, and free house. Their wages vary very " much, and the value depends on the state of the markets."

This plan of hiring appears to be, in all essential particulars, similar to that described in the previous paper, as existing in Northumberland, and some other parts of the north of England.* In 1860 the hind's emoluments were returned as worth 15s. per week.

Under the "rate of wages," the "hind's boll" as it is called in the statistical survey of the parish of Stenton, Haddingtonshire, was valued in the following manner; the figures relate to 1855:—

Hind's Boll.

	£ s.
Oats 12 old bolls.....	10 10
Barley 3 ".....	3 14
Peas 2 ".....	1 7
Cow kept.....	6 -
Potatoes planted, 1,200 yards.....	2 12
In lieu of keeping hens.....	- 15
	<hr/>
	24 18

In the present day, it would appear rather trite to enlarge upon the intelligence, trustworthiness, and power of endurance of the Scotch shepherd. All accounts consulted for the purpose of obtaining information for the present paper, concurred in giving him a very high character. By his sagacity, industry, and frugality, he often raises himself into the rank of the smaller farmers. His wages are usually paid by assigning to him a given portion of the flock over which he has charge. He enters into a sort of pastoral partnership "of limited liability" with the farmer. When he leaves the service of his employer, the latter purchases the shepherd's stock, which is delivered over to his successor. In the "Statistical Account of Scotland," it is stated that, "Shepherds instead of money wages are generally allowed a house, 6½ bolls of meal, the grazing

* *Statistical Journal*, vol. xxiv, p. 337, *et seq.*

" of two cows, and from forty to sixty sheep per annum." He appears, however, to receive, in some places, money wages and food. The tract of country over which the shepherd has to exercise his care, is very extensive; as more than the half of Scotland is covered with "sheep-walks."

The clergymen who, for the statistical survey, reported in respect of the parishes with which they were clerically associated, bore frequent testimony to the good character and decent behaviour of the Scotch peasantry; especially in the localities where those qualities were set off by the opposite characteristics of a colliery population. The following passage is from the survey of Kelton in Kirkcudbrightshire, and may be regarded as a fair example of the character, generally awarded to the agricultural labourers, in the Scotch lowlands:—

"The peasantry are frugal, and cleanly in their habits; enjoy, in a reasonable degree, the comforts and advantages of society, and seem cheerful and contented with their condition and circumstances. Their ordinary food consists of oatmeal, made into cakes, and porridge, with milk for breakfast and supper, and a dinner of barley broth, with beef or mutton and potatoes."

III.—*Rate of Wages in 1860.*

The summary of wages in the text, as well as the tables in the Appendix, are conformable to the county arrangement adopted in the census of 1861; with a condensation into three groups, which the numerous divisions of that work rendered expedient. The *first group* is conterminous with the northern, the north-western, and north-eastern; the *second group*, with the east and west midland; and the *third group*, with the south-western, south-eastern, and southern divisions of the Scotch registration and census tables.

The agricultural labourers working for wages on the 31st March, 1851, were 201, 427. They were classed in the following manner:—

Class.	Under 20 Years.	20 Years and Upwards.	Total.
<i>Males:—</i>			
Out-door labourers.....	14,027	80,872	94,899
Shepherds	725	5,829	6,554
Farm servants (in-door).....	24,313	21,033	45,346
Total Males.....	—	—	146,799
<i>Females:—</i>			
Out-door labourers.....	5,325	20,826	26,151
In-door farm servants (not domestic servants)	12,745	15,732	28,477
Total Females	—	—	54,628

FIRST GROUP—*Northern Counties.*

There are eleven counties included in this group, which is conterminous with the northern, north-western, and north-eastern divisions of the census of 1851. The area is 9,821,239 acres; the population, according to the last enumeration, 667,035 persons; the increase since 1851, has been less than 2 per cent., or 11,007 persons; some of the counties have decreased.

The number of adults, that is, of persons aged 20 years and upwards, engaged in agriculture, according to the census of 1851, was 119,554, or 30.2 per cent. on the adult population of that year.

Returns are given in respect of nine counties in this group, namely:—Shetland, Orkney, Caithness, Sutherland, Ross and Cromarty, Inverness, Nairn, Elgin and Kincardine. Aberdeen and Banff, have the unenviable distinction of being absent from this useful parliamentary paper.

Weekly Wages.—The men's range from 8s. to 14s. 6d. The wages at 8s. are confined to Shetland; excluding that district, the lowest amount is 11s. The average of the nine counties is 12s. 2 $\frac{3}{4}$ d. The women's are 4s. to 6s. 6d.; average 5s. 1 $\frac{1}{4}$ d. The wages of the children (the term being limited to all those who are under 16 years of age) are 2s. 9d. to 6s.; the average 4s.

Harvest Wages.—In Orkney, the men have 12s. per week, without food; or 9s. with. Women, 6s. with food. In Caithness for the whole harvest, men have, 55s. with food; and women, 28s. with food. In Sutherland, men receive 15s.; and women, 9s. per week. In Cromarty, men receive 13s. to 15s.; or 3l. for harvest of five weeks. In Elgin, wages in harvest with lodging and victuals, men 12s. 6d.; women 7s. 6d.; boy's 6s. 4d. In Kincardine, men earn 19s., and women 13s., during five weeks, with food and beer in addition.

Allowances.—In some of the counties the labourers receive no food, or drink, in addition to the money wages. In Orkney, Sutherland, Inverness, Elgin, and Kincardine, food and lodging with firing are allowed; but the value of these additions, about 4s. to 5s. a-week, is reckoned in the money wages. In some places the labourers are either fed in the farmer's kitchen, or have a house or accommodation in the boothy; the latter have 18 lbs. of oatmeal, 10 lbs. of potatoes, and generally 9d. per week for milk. Those fed in the farmer's house appear to obtain a much better diet.

Task Work.—In Shetland and Caithness, there is none. In the other counties the weekly earnings of men range from 12s. to 14s. 6d.; the average being 13s. 6d. No food is given, or other allowance made to those who are engaged on task work.

Special Services.—In Orkney, ploughmen are hired by the year; they are paid 12l. a-year in money, and receive in addition 2 quarts

of milk daily, 5 stones of oatmeal (90 lbs.) monthly, and 10 barrels of potatoes. Dairymaids 6l. per year, with maintenance the same as the men; with the exception of potatoes, of which they have but one-half the quantity. Children under 14, herding cattle, 1l. 10s. per half-year, with board and lodging.

SECOND GROUP—*Midland Counties.*

This group includes the nine counties which are contained in the east midland and west midland divisions of the census. The area is 5,462,339 acres; the population 762,999 persons; the increase is less than that of the first group, being only 10,408, or 1.4 per cent. Four of the counties have decreased.

The number of the adults engaged in agriculture in 1851, was 69,287, or 17.1 per cent. of the adult population at that time.

All the counties are returned in this group; namely, Forfar, Perth, Fife, Kinross, Clackmannan, Stirling, Dumbarton, Argyle, and Bute.

Weekly Wages.—The men's range from 12s. to 15s.; the average 13s. 2d. The women's range from 4s. 6d. to 7s. 6d.; average 5s. 7 $\frac{1}{4}$ d. The children's vary from 3s. to 5s.; the average 4s. $\frac{1}{2}$ d.

Harvest Wages.—In Forfar, harvest workers, besides those belonging to the farm, are obtained from the country and neighbouring towns. The men receive for "dry time," 25s. per week on the average; with bread and beer, and milk for dinner. In Perth, good scythemens from 20s. to 21s. per week, with victuals; or 5s. a-week extra, without food. Women and young lads, 15s. to 18s., without food. In Fife, 15s. a-week for men, and 12s. for women; with an allowance of bread and beer; in the potato harvest, men 15s., and women 9s., without food. In Kinross, men 15s., and women 8s. 6d.; both having an allowance of bread and beer for dinner. In Clackmannan, men 19s., and women 12s.; both having also bread and beer for dinner. In Stirling, men 21s., women 13s. 6d., children 4s. 6d.; all receiving bed and board in addition. In Dumbarton, 24s. per week on the average, without any allowance. Women 12s.; men at piece work during harvest, can make 5s. a-day. In Argyle, men 18s. a-week; and in Bute, 15s. a-week and food, a medium wage for men.

Allowances.—Besides money wages, the labourers frequently receive food, or board and lodge in the farm-houses, or in a boothy attached; the value of these additions has been estimated in the weekly wages. Food and drink, given to ploughmen and other servants, are noticed in the next paragraph.

Task Work.—In Clackmannan and Bute, there appears to have been no task work. In the other counties the weekly payments to men range from 13s. 6d. to 17s.; averaging 14s. 7 $\frac{3}{4}$ d.

Special Services.—In Forfar, the regularly *hired male* farm servant, has 10*l.* 11*s.* 6*d.* for six months money wages; with oatmeal and milk, worth 6*l.* 13*s.* 7*d.*; this is at the rate of 13*s.* per week; besides fuel, lighting, and lodging. *Ploughmen* receive 7*s.* a-week, with 2 pecks of oatmeal and 7 pints of milk, with lodging in a bothy. The *married ploughman's* money wages 17*l.* 10*s.*, food, fuel, house, and garden, together worth 20*l.* 3*s.* 7*d.* *Single ploughman's* wages 19*l.* 10*s.*; the value of the food, &c., 15*l.* 12*s.* 7*d.* In Clackmannan, male servants hired by the year, 22*l.* in money, 3*½* tacks of oatmeal, and a house.

In Dumbartonshire, the hired servants have food and lodging; the average money wages for six months, are, for *ploughmen* 11*l.* *Spadesmen* 8*l.* 10*s.* *Boy's* 4*l.* *Women* 5*l.* *Girl's* 1*l.* 15*s.*

In Argyle, *ploughmen* 20*l.*, and *shepherds* 18*l.* a-year; if unmarried, they board and lodge with the farmer; if married, they are usually allowed a free house, with cow's grass, and 14 lbs. of oatmeal per week. *Dairymaids* 10*l.*, with board and lodging in the farm.

THIRD GROUP—*Southern Counties.*

Thirteen counties are comprised in this group, which is coextensive with the south-western, south-eastern, and southern divisions of the census. The area is 4,763,884 *acres*; the population 1,631,187 *persons*. By far the largest increase of population has taken place in this district, which contains the metropolis, and the principal manufacturing towns of Scotland. The numbers rose in the last decade 10·2 per cent., or 150,994. Three of the most southern counties, however, exhibit decreases.

The number of *adults*, who, in 1851, were engaged in agriculture, was 96,065, or 12·1 per cent. of the *adult* population. It is the least agricultural of the three groups.

Nine of the counties, namely:—Renfrew, Ayr, Lanark, Linlithgow, Edinburgh, Haddington, Berwick, Peebles, Selkirk, Kirkcudbright, and Wigtown, are returned; but Roxborough and Dumfries are not.

Weekly Wages.—The *men's* vary from 11*s.* to 15*s.*; the average being 13*s.* 2*d.* *Women's* 5*s.* to 7*s.* 6*d.*; average 5*s.* 11*½**d.* *Children's* 2*s.* to 6*s.* 6*d.*; average 4*s.* 9*½**d.*

Harvest Wages.—In Renfrew, men average 21*s.* per week. In Ayr, *men* average 21*s.*, and *women* 18*s.*, in the Kyle and Cunningham districts. In Lanark, *men* 18*s.*; and *women* 12*s.*; both with food. In Edinburgh, women make double wages, with food extra; and the men have two diets a-day during harvest. In Peebles, almost all the farm-labourers are yearly servants; the men in harvest have extra victuals; and the women have 9*s.* weekly, with victuals. In Selkirk, the *men* 22*s.* 6*d.*; *women* 15*s.*; both without food; the men working ten hours and the women seven hours a-day. In Kirkcudbright, the

men 16*s.*; and *women* 8*s.*; with board and lodging. In Wigtown, "harvesters" are commonly engaged for the whole harvest; for that of 1860, the wages were 3*l.* to 3*l.* 10*s.*, with food.

Allowances.—Where food and drink are allowed to the ordinary labourer, the value of these additions is included in the weekly money wages. In Haddington and Berwick, during harvest, porridge, bread, and beer are allowed, in addition to the money wages, as stated in the table.

Task Work.—*Men's* earnings range from 12*s.* to 18*s.* per week; the average being 15*s.* 3*d.*

Special Services.—In Renfrew, *ploughmen* average 21*l.* a-year; and *dairymaids* 5*l.* 5*s.*; both having board and lodging with their employers. In Ayr, *married ploughmen* 18*l.*, with 10 bolls of oatmeal, free house, and cartage of coals. *Unmarried ploughmen* 19*l.* *Dairymaids* 5*l.* *Boys* under 16, 2*l.* 10*s.*: the last three classes have board and lodging in addition. In Lanark, *married ploughmen* 21*l.*, with food, fuel, and rent; valued at 10*l.* 4*s.* *Dairymaids* 14*l.*, with very full board. Linlithgow, *married ploughmen* average 22*l.* 10*s.*, with food, fuel, and house rent; valued at 11*l.* 6*s.*, in addition.

ALL SCOTLAND.

From the preceding figures, we obtain the following results as totals applicable to this part of the United Kingdom:—The area is 20,047,462 *acres*, being rather more than one-third of the surface of Great Britain. The population 3,061,251 *persons*; the increase in the last decade was 172,509; or 6·6 per cent. only. This is not much more than *half* the rate of increase, decennially recorded at the previous enumerations. Twelve counties exhibit absolute loss in their numbers, to a greater or lesser extent. In the return from Kin-cardine, it is stated that young women, who have been moderately educated, prefer domestic service to field work; and that, consequently, the proportion of females employed is annually decreasing.

The number of adults ascribed to the agricultural class in the census of 1851, was 284,906, or 18·2 per cent. of the adult population of that year. The ninth class in the census of occupations (1851), embraces all persons, male and female, aged 20 years and upwards, who are immediately dependant on the cultivation of the land, in their various capacities as landowners, farmers, labourers and their adult kinsfolk; namely, as—

CLASS IX.—*Persons Possessing or Working the LAND, and engaged in Growing GRAIN, FRUITS, GRASSES, ANIMALS, and other Products:*

Sub-class 1. In fields and pastures	275,171
" 2. " woods	1,909
" 3. " gardens.....	7,816

It is worthy of note, that the proportion of adult females employed in Scotland in "fields and pastures," to the adult males, is nearly double that in the corresponding class in England; in the former country the ratio is 54·8 per cent.; but, in the latter, it is only 30·3 per cent.

Weekly Wages.—The men's range from 8s. to 15s.; but the lower term is exclusively confined to Shetland, which, being insular and remote, has no doubt causes in operation which depress wages far below the other counties. The average is 12s. 11½d. But taking the figures *exclusive* of Shetland, the range is 11s. to 15s.; the average 13s. 1d. The women's range from 4s. to 7s. 6d.; the average being for *all* Scotland, 5s. 7d. Children under 16, receive from 2s. to 6s. 6d., equivalent to an average on all the counties returned of 4s. 3¾d.

Task Work.—In some counties the system of allotting work by the task, or job, appears not to be usual; but where it prevails, it is principally confined to the *men*. Their weekly earnings, in twenty-four counties, varied from 12s. to 18s., which yields an average of 14s. 6¾d.

Harvest Wages.—In respect of seventeen counties, where the weekly wages of this season are stated, it appears that the *men's* range from 14s. to 25s.; the average being 18s. 7d. The *women's* wages, in respect of twelve counties, range from 8s. to 15s.; average 11s. 4d. These sums are considerably higher than the usual rate of wages in the same districts.

All the counties are represented in the parliamentary paper, except the four defaulting ones already mentioned. The returns were compiled in the Crown Office, Edinburgh, and the Crown Agent has appended the following note to them:—"The returns have been made by the sheriff clerk of each county, most of whom obtained their information from a few of the leading farmers in their respective counties. It is difficult to obtain accurate information with regard to food, &c., and the information in the returns can only be regarded as exhibiting an average of payment and maintenance of agricultural labourers in different counties in Scotland."

It may be useful, in connexion with the rate of wages in Scotland, to state, in this place, upon the authority of a parliamentary paper, published in 1855,* but, relating to the previous year, some particulars of the agricultural produce and stock of that country.

The return is for 12,613,342 imperial acres; of which quantity 2,003,692 acres were under tillage; 9,231,990 were in grass; and 1,374,660 were occupied by roads, wastes, and woods. Of the land under tillage, more than half was devoted to cereals, the principal

* "Report of the Highland Society on the Agricultural Statistics of Scotland." Presented to both Houses, 1855.

crops were oats 932,994, barley 207,507, and wheat 168,216 acres. The principal root crops were turnips and potatoes, of the former there were 433,916, and of the latter 143,082 acres.

Of the acres in grass, 6,530,843 were sheep walks; 1,427,790 "grass in the rotation of the farm," and 1,207,101 in permanent pasture. In respect of the live stock, there were 4,787,235 sheep of all sorts; cattle, exclusive of milk cows, 438,334; milk cows 292,365; calves 205,172; swine 163,683; and horses 156,595. It should be stated, however, that these numbers have been summarised from schedules that were issued by the Highland Society, and which were not sent to any tenant in the lowlands, rated below 10*l.*; nor to any in the highlands below 20*l.* The surface under cultivation, according to the returns thus limited, is *three-fifths* of the whole area of Scotland.

IV.—Demand and Supply of Agricultural Labour.

The return, from which the rate of wages, in 1860, is abstracted, was confined in its form to ascertaining that chiefly; yet, the Scotch, like the English respondents, took the opportunity of adding to the information they afforded upon the main object, some remarks as to the supply of labour. In several districts the demand appears to be in excess of supply; in others, the sufficiency of supply is spoken of in a tone which rather implies an exceptional condition. Thus, employing the words of the return, and commencing with the counties deficient in labour, it is stated that—

"There is a want of labourers in Orkney, said to arise owing to the call for labourers to make roads, and the drain from emigration."—(Orkney.) "The supply of the labour is abundant in the neighbourhood of towns, but less so in the country, where there is a pressure of farm-work."—(Inverness.) "The labour market is by no means overstocked, there being at some seasons a great scarcity of hands."—(Nairn.) "Labourers generally scarce."—(Forfar.) "Good hands in harvest get from 3s. 6d. to 4s. 6d. per day, without any allowance; scarce to be had. In piecework they can make 5s. per day. Women can get half of men's pay."—(Dumbarton.) "Labour market has been high of late, owing to railway operations in the district."—(Kirkcudbright.) Other counties speak in this wise: "There is always a full demand for labourers, and hitherto the supply has kept pace with the demand."—(Caithness.) "On the east coast of the county, which may be said to be the only agricultural part of it, the supply of labourers was about equal to the demand. In one parish only was there a difficulty in procuring labour."—(Sutherland.) "There is a sufficient supply of labour."—(Elgin.) "At present there is sufficient employment for male labourers at the rate stated, and the supply of labour is

"adequate." "Young women who have been moderately educated dislike agricultural labour, and prefer domestic service. In consequence, the proportion of females employed is annually declining."—(Kincardine.) "Since the introduction of reaping machines, the difficulty of getting labourers is not so great. The price of labour is gradually rising."—(Fife.) "In harvest labourers are scarce, and receive from 3s. to 4s. per day. During the remaining portion of the year the labourers are sufficient."—(Renfrew.) "The labour market in these two districts* is on the advance, many of the best labourers being now employed by the mineral tenants as pitmen, &c., and earn from 16s. to 18s. per week, with constant employment."—(Ayr.) "The supply of labour in the vicinity of towns and villages is generally sufficient, but in some parishes is barely equal to the demand." "From the influx of Irish labourers, both male and female, the rate of wages in the labour market has been greatly reduced. An opinion prevails, were it not for the Irish labourers, the labouring work in some parts could not be extensively or conveniently executed." "It is thought that if better accommodation in cottages, with an increased use of the family comforts of the married agricultural servant, were provided by the farmers, the strong tide of emigration going on amongst agricultural labourers would be stopped."—(Lanark.) "There is a sufficiency of labour generally to meet the demand, and abundance during the harvest of 1860."—(Berwick.) "The labour market is sufficiently supplied except for drainage. This is done almost entirely by Irishmen."—(Selkirk.)

Connected with this subject, is the influence which the demand for labour in the mining and manufacturing districts, exercises over the wages of the agricultural population. Taking the results of the three groups, we find that *the rate of wages is inversely as the proportion of adults engaged in agriculture*; or, in other words, the rate is directly as the demand for labour in the mining and manufacturing occupations of the same district. This will be clear upon an inspection of the following table:—

Groups.	Ratio per Cent. of Adult Population occupied in Agriculture, 1851.	Average Weekly Wages.				
		Men.		Women.	Children under 16.	
		Ordinary Pay.	Task Work.			
1. Northern	Per cent. 30·2	3. 2	2. 3	1. 3 6	5 1½	4 -
2. Midland	17·1	1. 3	2	1. 4 7½	5 7½	4 -
3. Southern	12·1	1. 3	2	1. 5 3	5 11½	4 9½

* Carrick, and Kyle, and Cunningham.

V.—Rise in the Rate of Wages.

In discussing the English rate of wages, recourse was had to official documents, published and unpublished, for the purposes of comparison, as set forth in the Society's *Journal* (vol. xxiv, p. 340, *et seq.*). But failing to obtain any information from similar sources, for the present occasion, the means of instituting a comparison have been found in the "New Statistical Account of Scotland." (Edinburgh, 1845.) It should be noted in the outset, that the parochial reports in that work, relate to different years, beginning with 1835, and terminating in 1844; and that, consequently, to the extent of any fluctuation which may have happened during those nine years in the rate of wages, the first term of the comparison wants that homogeneity which belongs to the second.

Before proceeding to place the wages of 1860, side by side with the payments made to labourers and farm servants in 1835-44, it will be interesting, in connection with the general question of the increased remuneration of the Scotch peasantry, to exhibit in this place some passages, taken from the survey, bearing upon their condition, at much earlier periods.

"In 1660, a ploughman received 10*l.* scots (16*s.* 8*d.*), with pair of shoes and stockings for half-a-year's service. * * * * A common labourer half a merk (6½*d.*), without meat, and forty pennies with meat and drink.* In 1836, a good ploughman got from 9*l.* to 10*l.* sterling, with bed, board, and washing for six months' service."†

In the parish of Moulin, Perthshire, the money wages are stated to have been for a—

	1743.	1750.	1755.
	£ s. d.	£ s. d.	£ s. d.
Man servant for a year	1 13 -	1 19 -	-
Women "	- 16 6	-	- 18 10

These servants would have been lodged and fed by the farmers.‡

In the parish of Monimail, Fifeshire, the daily wages of the labourer and the yearly wages of the ploughman are given, thus§—

	1750.	1790.	1810.	1834.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Labourer, per day.....	- - 5	- - 10½	- 1 10	- 1 4
Ploughmen, per year	2 5 -	6 10 -	16 - -	10 - -

* For a day's work—forty pennies scots = 3½*d.*

† "Statistical Account, Scotland," vol. vi, p. 388.—(Rutherglen.)

‡ Ibid. vol. x, p. 655.

§ Ibid. vol. ix, p. 42.

In the parish of Crieff, Perthshire*, the wages are set out as follows:—

	1772.	1792.	1837.
	£ s. d.	£ s. d.	£ s. d.
Men servants' average yearly wages, exclusive of board	3 6 8	10 10 -	12 12 -
Maid servants' average yearly wages, exclusive of board	2 2 -	3 3 -	6 - -
Best labourers', per day	- - 9	- 1 -	- 1 10

In the parish of Glenisla, in Forfarshire, the payments were in respect of—

	1791.	1838.
	£ s. d.	£ s. d.
Ploughmen, per year, with maintenance	7 10 -	13 - -
Maid servants " "	3 6 6	7 - -
Labourers, men, per day	- 1 -	- 1 6
,, women, "	- - 3	- - 7

It is mentioned several times in the "New Statistical Account," that the rate of wages were much lower about 1836, than they had been some twenty years earlier. Thus, in Dunfermline, Fifeshire, the wages of day labourers were stated to have been in 1818, at 1s. 8d. to 2s. 3d.; but in 1838, the rate had fallen to 1s. 6d. to 1s. 8d. In Monimail, in the same county, the day wages in 1810 were 1s. 10d.: but in 1834, only 1s. 4d.

The Reporter for the parish of Girvan, in Ayrshire, states that "The wages of farm servants are lower than they were fifteen or twenty years ago. Then 20*l.* a-year, with bed and board, was quite common for able experienced servants, whereas now, the same descriptions of persons can easily be had for 14*l.* to 16*l.* a-year. "Lads, again, able for the most kinds of men's work, can be readily had for 9*l.* to 12*l.* Girls fit for managing a dairy, get about 8*l.* "And house servants, particularly in the town, get from 4*l.* to 7*l.* a-year."†

When we compare the rate of weekly wages of men in 1860, with those alluded to above, as variously ascribable to the years 1835-44, which, upon the mean period, afford an interval of twenty years, the following results present themselves:—

* "Statistical Account, Scotland," vol. x, p. 511.

† *Ibid.* Report on the parish of Girvan, 1837.

Groups.	Counties.	1835-44.	1860.	Increase.
		s. d.	s. d.	s. d.
Northern	7	8 1	12 2	4 1
Midland	5	9 9	13 2½	3 5½
Southern	5	9 5	13 -	3 7
Scotland (part of)	17	8 11	12 8½	3 9½

The rise in the rate of wages to male day labourers, in the seventeen counties to which the comparison is restricted, by the data in the first term not being obtainable for more, is 42.5 per cent. (See Appendix, Table III.)

The comparative wages of the female day labourers can only be shown for five counties in the northern, and for three, in the midland group. The proportionate increase was higher than that obtained by the men, being equal to 58.5 per cent.

Groups.	Counties.	1835-44.	1860.	Increase.
		s. d.	s. d.	s. d.
Northern	5	3 4½	5 7	2 2½
Midland	3	3 9	5 2	1 5
Scotland (part of)	8	3 5	5 5	2 -

On referring to Table III (Appendix), the reader will be struck with the great increase in the wages, of men and women, which has taken place in Orkney; the weekly wages of the former have risen from 6s. 10d. to 12s., or 75 per cent.; those of the latter from 3s. to 6s., or 100 per cent. A friend, to whom I am otherwise indebted for valuable information, in connexion with this paper, was so surprised at the rate of payment in that county, that he wrote to a gentleman residing at Kirkwall, from whom he received the following reply:— "I was quite aware of the fact that Orkney is at this time the best place for the labouring man in the United Kingdom, and must continue to be while we have so much fine land to bring into cultivation, and while our native population have such a desire for going to sea, and a more than Scotch desire for pushing abroad and rising in the world. Most part of our labourers are now got from the northern counties of the mainland, or from Aberdeen and Banff."

The next class of labourers have, in addition to their money wages, board and lodging provided for them by their employers; or, they receive an equivalent benefit in the shape of rent, food, and firing. This class is sometimes hired by the year; but more frequently by the half-year. First on the list comes the ploughman, evidently a

functionary of considerable esteem in the economy of the Scotch farm.

The statistics are confined to a few counties; the particulars are given *in extenso* at Table IV (Appendix).

Groups.	Counties.	1835-44.	1860.	Increase in Yearly Wages.
Northern	2	£ 7 1 9	£ 11 10 -	£ 4 8 3
Midland	3	12 3 6	18 4 8	6 1 2
Southern	2	16 12 -	22 - -	5 8 -

Hence it appears, according to the average of the seven counties, that the yearly wages of the Scotch ploughman has risen, in the term indicated, from 12*l.* to 17*l.* 8*s.*; or 45*0* per cent.

Next on the list follow the male farm servants; the information in this instance, only relates to four counties:—

Groups.	Counties.	1835-44.	1860.	Increase in Yearly Wages
Northern	2	£ 9 8 9	£ 20 15 4	£ 11 6 7
Midland	1	11 5 -	21 3 -	9 18 -
Southern	1	11 10 -	20 16 -	9 6 -

The comparative money wages of shepherds, the emoluments for pastoral services being usually received in a different form, can only be shown in one instance; namely, in—

County.	1843.	1860.	Increase.
Argyle	£ 11 2 6	£ 20 - -	£ 8 17 6

The wages of dairymaids, in two counties, will complete this portion of the statement. The money was paid at both dates, in addition to board and lodging:—

Counties.	1838-40.	1860.	Increase in Yearly Wages.
Renfrew	£ 8 10	£ 10 10	£ 2 -
Lanark	8 5	14 -	5 15

In connection with the improved fiscal position of the labourer, it is well to place here a paragraph taken from the survey of the parish of Penpont, Dumfries, if only for the purpose of eliciting comment. I do not know the worth, or currency, this mode of computing a labourer's welfare has obtained. "If," says the writer, "the calculation be a fair one, that the labourer is well provided when he can earn a peck, or half a stone, of meal in a-day, he must be much better provided when he can double it, as is here often the case." This was written in 1836, when at Penpont, the wages of men in winter were 1*s.* 4*d.*; and in summer 1*s.* 6*d.* a-day. In 1860, the average day wages of a man were 2*s.* 2*d.*; for which he could procure two half-stones and one-sixth of oatmeal, or 15*1*/₄ lbs.

VI.—Cost of the Labourer's Food, Clothing, and Rent.

In searching through the "Statistical Account of Scotland" for the rate of wages formerly paid to agricultural labourers, the prices of food, at several dates, were met with in a few instances. Those statements, from the light they may throw upon the condition of the labourer, as well as by reason of their intrinsic interest, are given here.

The first is for the parish of Monimail, in Forfarshire. Salmon in 1750, when it was sold at 1*1*/₂ *d.* per Dutch pound, would not then be an article unknown to the peasant's table. At that date his day wages were 5*d.*, with which he could therefore purchase 4 lbs. *avoirdupois*, of that fish.

Description.	1750.	1790.	1810.	1834.
Beef and mutton, per lb.*	<i>d.</i> 2	<i>d.</i> 4	<i>d.</i> 8	<i>d.</i> 5 <i>1</i> / ₂
Hens, each	4	12	18	18
New butter, per lb.*	4	8	11	9
Eggs, per dozen	2	4	12	8
Salmon, per lb.*	1 <i>1</i> / ₂	5 <i>1</i> / ₂	8	8

* The lb. is the Dutch pound of 20 ozs. Vol. ix, p. 42.

The second is for the parish of Crieff, Perthshire:—

Description.	1772.	1792.	1837.
Best beef and veal, per lb.....	<i>d.</i> 3	<i>d.</i> 4	<i>d.</i> 5
" pork	3	4	4
Powls, each	6	9	15
Chickens	2	3	9
Eggs, per dozen	2	3	7

Vol. x, p. 512.

A table, in some detail, of the prices of food, clothing, coals and house-rent, for the parish of Arbroath, Forfarshire, in the years 1812-19-26 and 1833, will be found in the Appendix (Table VI).

The following are the prices of a few of the principal articles of food:—

Description.	1812.	1819.	1826.	1833.
	d.	d.	d.	d.
Wheaten bread, per qtn.	18	11	10	8
Oatmeal, per peck of 8 lbs. (Dutch)	—	16	16	12
Potatoes, per stone of 16 lbs. ,	—	4½	4½	4
Beef and Mutton, per lb. avoirdupois	8	7	6	5½
Butter , " , "	—	10½	10	8

Another table, which will be also found in the Appendix (VII), exhibits the prices of food in seven counties, from 1835 to 1842. Since these are the years to which the earlier wages in Tables III and IV (Appendix) relate, they have an especial bearing upon the comparisons there instituted.

The average of prices of five articles in 1835-42, are here set out:—

	s. d.
Beef, per lb. (imperial)	— 5
Mutton , " , "	— 5
Cheese, the stone of 24 lbs.	7 3½
Eggs, per dozen	— 5
Oatmeal, per 140 lbs.	19 —

The Orkney prices, which appear quite exceptional, are not included in the sum from which the average, just noted down, is deduced.

The following were the prices in 1841, in Sandwich, Orkney:—

	d.
Beef and mutton, per lb. (imperial)	2
Fowls, per pair	16
Eggs, per dozen	3
Butter, per lb.	6

But this part of the inquiry, as bearing upon the main subject of the paper, the rate of wages in 1860, would have been very incomplete, if the prices of the food and clothing, usually consumed by the labouring poor, had been omitted in respect of that year.

The possible defect of the paper from that cause, whatever may be otherwise amiss in its treatment, is entirely averted by the kindness of Mr. Joseph Cundell, the Secretary to the British Linen Company, at Leith. That gentleman took considerable trouble to procure for me, through the local agents of his company, returns of the required prices from several counties. The value of the informa-

tion thus procured, will be gathered from an inspection of the tables appended (Tables VIII and IX).

The first set of tables represent the shop prices of food, soap, candles, and coals, paid by agricultural labourers in, or about, the half-year ended Christmas 1860. The tabulated average prices which immediately follow, are those of *ten* parishes referable to *nine* counties; namely, Orkney, Sutherland, Banff, Forfar (two), Perth, Argyle, Berwick, Peebles, and Lanark. It is believed that, looking to the tendency of prices in late years, to obtain a general level throughout the kingdom, the figures now presented are upon a sufficiently broad basis:—

Average Prices in 1860.	
	s. d.
Bread	per 4 lbs. — 7½
Flour	" 7 " 1 2½
Oatmeal	" 7 " 1 —
Pot barley	" 7 " 1 1
Potatoes	" 14 " — 7
Butchers' meat	" 1 " — 6½
Bacon	" 1 " — 8½
Cheese	" 1 " — 5½
Butter	" 1 " 1 —
Fish (fresh and salt)	" 1 " — 2½
Tea	" 1 " 4 —
Sugar (moist)	" 1 " — 5½
Coals	" 1 cwt. — 8½
Candles	" 1 lb. — 7½
Soap	" 1 " — 5

Having no account of the actual quality and cost of food consumed by the Scotch agricultural population, I have taken the dietary and outlay of a labourer, his wife, and five children, in the South Dublin Union,* as representing the measure and description of food required; and the Lanark table for the prices; substituting in the Scotch dietary, oatmeal and potatoes in due proportion for Indian meal. The Irishman and his wife earned from 10s. 6d. to 11s. 6d. a-week.

	s. d.
Oatmeal, 24 lbs.	3 9
Buttermilk, 18 qts. (at 1½d. per qt.)	2 3
Potatoes, 42 lbs.	2 —
Tea, 2 ozs.	— 6
Sugar, 1 lb.	— 6
	—
	9 —

This perhaps will be considered rather a restricted dietary for the Scotchman. But it will be seen, on a reference to Sir Andrew

* "Thirteenth Report of the Irish Poor Law Office," p. 54.

† *Ibid.*, p. 76.

Agnew's Return,* that where the farmers find the labourers in food, it is confined to a fixed allowance of oatmeal, milk, and potatoes. In those instances, however, the labourers do not dine at the farmer's table.

The cost of the labourer's clothing must next occupy our attention. There can be little doubt that all things considered, the working man of the present day, enjoys many advantages, in the quantity and quality of his clothing, which were unattainable by his class formerly.

In the parish of Moulin, Perthshire,† the following particulars of dress are reported, viz. :—

1756.		1839.	
	s. d.		s. d.
Single soled shoes, per pair	1 14	Men's shoes, per pair	9 -
Double , , ,	2 -		
Linen used for shirts by the } - 4		Women's , ,	6 -
peasants, per yard			
Coarse cloth made in the } 1 14		Making a suit of clothes for } 6 -	
country for men's coats, per yard		every day wear	

And with reference to Knockands parish, Elginshire, the following:—

1835.		d. s. d.
Home-made stockings, per pair	6 to 1	6
Plaiting, per ell	1	6
Shirting, according to quality	1	- and upwards.

It should be observed, with regard to the very full and serviceable tables of the prices of clothing, procured by Mr. Cundell, that the total must be, sometimes, taken to represent what the tradesmen, supplying the information, consider a labouring family ought to expend; rather than the expenditure which they absolutely incur. Thus, the Golspie Bill, irrespective of charge for the "Sunday suit" for the husband, would entail an expenditure of 6s. a-week. It is computed as the outlay for a man, his wife, and five children, thus:—

	£ s. d.
Husband's Sunday suit (lasts four years)	4 11 6
," wearing clothes (last one year)	5 8 -
Wife's clothes (last two years)	4 12 -
Two boys' clothes (last one year)	3 5 -
Three girls' clothes , ,	4 15 -
	22 11 6

* House of Commons, No. 244, Sess. 1861.

† "Statistical Account," Moulin parish, Perthshire, vol. x, p. 665.

The next figures show the price of one year's clothing in the six selected counties, for a man, his wife, one boy and one girl, namely:—

	Dunse, Berwick- shire.	Banff, Banffshire.	Dunkeld, Perthshire.	Biggar, Lanark- shire.	Dingwall, Forfarshire.	Kirkwall, Orkney.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Husband's suit ..	2 13 -	3 18 6	4 9 2	3 - -	2 17 9	2 16 1
Wife's , , ,	1 3 6	1 14 6	3 - 6	2 14 -	1 8 9	1 2 8
Boy's , , ,	1 1 -	1 8 9	- 19 -	- 19 -	1 3 -	1 7 3
Girl's , , ,	- 8 -	1 3 7	- 14 -	- 15 4	- 13 2	- 13 10
	5 5 6	8 5 4	9 2 8	7 8 4	6 2 8	5 19 10

Taking the mean of the foregoing data, we arrive at the following results:—

	£ s. d.
Husband's suit	3 5 9
Wife's , ,	1 17 4
Boy's (one) , ,	1 3 -
Girl's , ,	- 14 8
	7 - 9

Probably the Orkney and the Perthshire tables (Appendix, Table IX), will present a fairer mean of the cost of the clothing of the Scotch peasantry. Both tables give the expense for a man, his wife, and five children (three girls and two boys); the first at 8l. 14s. 9d., and the second at 11l. 9s. 8d., hence the—

Weekly cost per head = 6½d.

The only information obtained for this paper, up to the present moment, of the rents paid by the Scotch peasantry, is given in Tables X and XI in the Appendix.

IRELAND.

VII.—Classes of Agricultural Labourers.

The writer of this paper is not aware that the great and beneficial changes, which the industrial pursuits of Ireland have experienced since the famine, have led to any material modification of the *classes* of labourers, as they existed before that terrible affliction. Then, they were thus described, "The labourers may be divided into three 'classes—unmarried farm servants, who reside with their employers; 'cottars, who hold in addition to their cabin, a small lot of ground at 'a fixed rate, generally payable in labour; and those who hold only a 'cabin, with perhaps a few perches of land as a garden, and who

" depend for their subsistence chiefly upon potatoes raised on land " taken as con-acre."* At that time, the first-named class was considered to be far the most fortunate; and the last were spoken of as appearing to be " the most wretched among the many wretched " classes of Ireland."

VIII.—Rate of Wages in 1860.

PROVINCE OF ULSTER.

This province is constituted of nine counties, extending over an area 5,475,488 acres; the portion under crops has increased 17 per cent. since 1847, as the following figures will show:—

Year.	Acres under Crops.	Increase in 1860, compared with 1847.
1847	1,649,962	Acres. 283,988
'50	1,819,201	or
'60	1,933,950	17 per cent.

The population according to the census of 1861, was 1,910,408 persons; since 1851, the inhabitants have decreased 5 per cent. The number of persons in Ireland, who are engaged in agriculture is not known.

Weekly Wages.—The men's range from 6s. to 8s. 4d.; average 7s. 3½d. The women's wages 3s. to 5s.; average 4s. The children's 2s. 5d. to 4s. 6d.; average 3s. 2d. All the children returned in the tables are under 16 years of age.

Harvest Wages.—The men's in seven counties returned, range from 12s. to 15s.; average 13s. 2d. The women's in five counties, 8s. to 10s.; average 8s. 4d. The children's in four counties, 4s. to 7s.; average 6s. In Monaghan county, the ordinary wages are double for one month in spring, and for one in autumn.

Allowances.—Seldom any in addition to the ordinary wages as stated above. In Monaghan, it is mentioned, that, " When food is given, it consists of potatoes and milk, or Indian corn-meal, stir-about, and milk. No ale or spirituous liquors given." But at harvest times food is often given in addition to the wages stated. It is observed in respect of county Down, that when the labourers are fed, the wages are usually 2s. or 3s. a-week less.

Task Work.—The men's weekly earnings range from 8s. 4½d. to 10s.; average 9s. 3½d. The women's in six counties, from 3s. 6d. to 6s.; average 4s. 10d. The children's in five counties, from 3s. to 3s. 9d.; average 3s. 4d.

* Land's Commission, Ireland. Digest, vol. i, p. 474.

PROVINCE OF CONNAUGHT.

Five counties are within the limits of this province. Its area contains 4,392,043 acres; the total extent under crops in 1860, had increased 39 per cent., since 1847. The following figures relate to three periods, viz.:—

Year.	Acres under Crops.	Increase in 1860, compared with 1847.
1847	583,416	Acres. 226,979
'50	683,914	or
'60	810,395	39 per cent.

The population in 1861, was 911,339 persons; since 1851, the decrease in this element has been 10 per cent.

Weekly Wages.—The men's range from 6s. to 10s. 2d.; average 7s. ¼d. The women's from 3s. 2d. to 5s.; average 3s. 11d. The children's from 2s. 6½d. to 4s. 6d.; average 3s. 1d.

Harvest Wages.—The men's are returned in respect of three counties, and the payments range from 8s. 6d. to 13s. 6d. per week; the average is 10s. 4d. In Sligo, where these wages were highest, namely 13s. 6d., diet was given in addition. In respect of two counties, the women's wages were 4s. and 5s. 6d.; and the children's 3s. and 3s. 9d.

Allowances.—Rare in this province. But in some of the districts of Sligo, two meals a-day are given to men, women, and children, apparently in addition to the ordinary wages, as stated in the Appendix (Table XIV).

Task Work.—The weekly earnings of the men, range in four counties, from 8s. to 10s. 6d.; average 8s. 10½d. In Galway county, the women average 4s. 9d.; and the children 3s. per week.

PROVINCE OF LEINSTER.

This division comprehends twelve counties. Its area is 4,876,211 acres; of which 1,724,444 acres were under crops in 1860. The cultivated area had increased since 1847, by 5½ per cent.

Years.	Acres under Crops.	Increase in 1860, compared with 1847.
1847	1,634,297	Acres. 90,147
'50	1,771,860	or
'60	1,724,444	5½ per cent.

It will be observed, however, that Leinster fell off, in respect to

the extent of surface under crops, between 1860 and 1850, by 47,416 acres.

In 1861, the population was returned, in the census, as 1,439,596 persons. This is 14 per cent. less than it was in 1851.

Weekly Wages.—The men's range from 5s. 7d. to 8s. 9½d.; average 6s. 11½d. The women's from 3s. to 4s. 11d.; average 3s. 9d. The children's from 1s. 7d. to 3s. 9d.; average 2s. 9d.

Harvest Wages.—In eleven of the counties, the men's wages vary from 9s. to 18s.; the average being 12s. 9d. In the other county, Longford, the wages were 8s. 6d. *with food.* The women's range from 6s. to 13s. 6d.; average of eight counties 8s. 3d. The children's in six counties range from 3s. to 4s. 6d.; average 3s. 7½d. In Longford, the women had 5s. 8d.; and the children 4s. 1d. per week *with food.*

Allowances.—None whatever in addition to the ordinary weekly wages as set forth in the Appendix (Table XIV).

The return from Kildare, however, states the harvest wages *with and without diet*, thus:—

		With Diet, per Day.	Without Diet, per Day.
		s. d.	s. d.
Men.....	1 11	2 9	
Women	- 9	1 4	
Children under 16	- 4	- 7½	

These payments are made "during the hurry of harvest." In two or three of the counties, one or two meals per day are given to the labourers, in addition to the wages stated, during harvest.

Task Work.—The earnings of the men range in eleven counties, from 8s. to 11s. per week; average 9s. 8½d. The women's in six counties, vary from 4s. 5d. to 6s.; average 5s. 4½d. The children's, in the same counties, from 3s. 6d. to 6s.; average 4s. 4d.

PROVINCE OF MUNSTER.

Six counties form this province. Its surface comprises 6,064,579 acres; of that quantity 1,499,181 acres were under crops in 1860. On a comparison with 1847, the latter amount exhibits an increase of 9 per cent.:—

Years.	Acres under Crops.	Increase in 1860, compared with 1847.
1847	1,370,900	Acres. 128,281
'50	1,483,317	or
'60	1,499,181	9 per cent.

The population in 1861 was 1,503,200 persons; during the last decade the people decreased 19 per cent.

Weekly Wages.—The men's range from 6s. 5½d. to 8s. 4d.; average 7s. 2½d. The women's from 3s. 6d. to 5s.; average 4s. 2¾d. The children's from 2s. 6d. to 3s. 6d.; average 2s. 11½d.

Harvest Wages.—The men's range from 10s. to 12s.; average 11s. 6½d. In four of the counties, *in addition* to these money wages, diet was given to the labourers. Women's in four counties from 5s. 6d. to 8s. 3d.; average 6s. 5d.; with diet *in addition* in two of the counties. Children's, in two counties only, 3s. 6d. and 4s. 3d.

Allowances.—In two, or three counties only, are there any allowances in addition to the ordinary wages. In Kerry, the men obtain "two meals daily of bread and milk." In Cork, W.R., it is stated, that, "when diet is given, a deduction of from 2s. to 3s. per week is made for men; and 2s. for women and children from the rates." The food given in those cases "consists of bread or potatoes, or Indian-meal stirabout, with milk *ad libitum.*" The same remark is applicable to the county of Waterford; food is very generally allowed the labourers in this province, in addition to the harvest wages, as stated above.

Task Work.—The men's earnings in respect of three counties, are stated to range from 7s. 8d. to 10s.; average 9s. In Waterford they are 5s. 6d., with diet *in addition*. In three counties the women's job-work earning range from 5s. to 7s. per week; average 5s. 4d. The children's from 3s. to 5s.; average 4s. 3d. To the return from the county of Kerry, the respondent adds this remark:—

"No task-work done, with the exception of mowing, at which a man can earn from 15s. to 20s. weekly, but no food is given. Farm servants are paid from 8l. to 12l. annually. Women from 4l. to 6l. with diet and lodging."

ALL IRELAND.

Taking the stated particulars of the four provinces, we obtain the following results, in respect of the whole country. The number of statute acres is 20,803,271; of which the portion under crops has increased 14 per cent. in thirteen years:—

Years.	Acres under Crops.	Increase in 1860, compared with 1847.
1847	5,238,575	Acres. 729,395
'50	5,758,292	or
'60	5,967,970	14 per cent.

From these figures it appears that a quantity, lying between *one-third* and *one-fourth* of the entire area, is at the present time under crops.

The population, according to the last census, was 5,764,543 ; since 1851, the inhabitants had decreased 787,842 ; or 12 per cent.

Weekly Wages.—The men's range from 5s. 7d. in Kilkenny county to 10s. 2d. in Roscommon. It should be noticed that the wages for Longford, being returned in respect of the money portion only, are excluded from the range of rate given here, and in the Appendix ; the average was 7s. 1 $\frac{1}{4}$ d. The women's range from 3s. to 4s. 11d. ; average 3s. 11d. The children's from 1s. 7d. to 4s. 6d. ; average 2s. 11 $\frac{1}{2}$ d.

Harvest Wages.—The men's ranged from 8s. 6d. in Mayo county, or 2s. 6d. above the ordinary weekly wages, to 18s. in the county of Carlow ; or 11s. above the ordinary weekly wages. In several counties where the harvest wages were stated at 12s., and, in one case, 15s. per week, diet was given in addition to those sums. The average of the men's wages at that season was, exclusive of the value of the food given, which may be taken at 6d. per day, 12s. 4d. per week. The women's wages varied from 5s. 6d. to 13s. 6d. ; the average was 7s. 1 $\frac{3}{4}$ d. The children's from 3s. to 7s. ; the average 4s. The harvest wages were not returned for every county. The wages of the men have reference to *twenty-eight* ; of the women, *twenty* ; and of the children to *fifteen* counties. The harvest is generally stated to last four weeks.

Allowances.—The general practice is to give neither food nor drink, in addition to the ordinary wages. The returns state that the practice of giving food is much discountenanced in some counties ; especially since the famine. However, diet in many is still given to men, women, and children, at harvest, or, at "hurried times," in addition to the money wages. It is stated in the return, that "diet is " very seldom given in Meath ; but when such is the case, 6d. per day " is generally deducted from men, and 4d. from women's wages." In Cork, W. R., it is observed that "when diet is given, a deduction of " 2s. to 3s. per week is made for men ; and 2s. for women and " children from the rates," in the return.

Task Work.—Men's weekly earnings are returned in respect of *twenty-seven* out of the *thirty-two* counties of Ireland. The lowest rate was that of Tipperary county, where it was 7s. 8d. ; the highest, was that of West Meath and Kildare, where it attained to 11s. ; the average being 9s. 4 $\frac{1}{2}$ d. The earnings of women at agricultural labour, paid for on this system, ranged, in sixteen counties, from 3s. 6d. to 7s. per week. Those of children in fifteen counties, from 3s. to 6s. per week.

IX.—Supply of Labour ; Rise in Wages.

Though there are, in different counties, considerable variations in the relation between supply and demand in the labour market of Ireland, yet, a careful inspection of the return from which the rate of Irish wages is compiled, leads to the conclusion, that, the sister island, on the whole, is not overstocked, at the present day, with labourers. This is in satisfactory contrast to the experience of the Land's Commission, who, in the first volume of their "Digest of Evidence," affirmed that "no fact seems established more clearly " by the Land Commission evidence, than that employment for the "agricultural labourers is almost universally deficient."* The evidence of the general equilibrium of supply and demand is presented, in the following extracts, from Lord Dunkellin's return. The first series points to a positive scarcity of labour :—

Londonderry.—“Last harvest there was much difficulty in procuring hands for reaping, and wages high accordingly. in some parts of the county labourers were employed at 15s. per week, with diet ; women 10s., and boys 7s.”

Antrim.—“At that season of the year, generally speaking, labourers find no difficulty in obtaining employment in this county, during the months of October and November.”

Tyrone.—“Throughout the county there appears to have been ample employment (except perhaps in the Newtown-Stewart district, which is mountainous) in November and December. The railway works going on (Omagh and Dungannon line), have of course added to the rates of labour somewhat, by making a great scarcity of it.”

Carban.—“In the harvest season the labour market is not over well supplied, and in spring and harvest the supply of labourers for the last few years has been scarcely equal to the demand ; and for a few weeks at those seasons, high wages are demanded by labourers, and paid by the farmers.”

Longford.—“At present there is a very good demand for labourers, at 1s. 6d. per day. The market rates very high for both food and fuel ; and many of the labouring class suffer much, in consequence of having been unemployed during the winter season.”

Wicklow.—“All the disposable hands, including male and female, are just now, and have been for some time past, in the receipt of full employment ; while the railway, which is being constructed hence to Gorey, county Wexford, absorbs all male labourers that present themselves, by which means a scarcity of hands is in some instances felt by farmers.”

Wexford.—“At present there are but few out of employment in this county. previous to this (in consequence of the severity of the weather) the labouring class suffered a good deal.”

Cork, W.R.—“The labour market in this riding has, within the last few years, from emigration, and other causes, become at least 20 per cent. higher than previously, and the condition of the labourer must consequently have improved. This, however, is not so apparent to the casual observer, as the social habits of the peasant class, especially in the extreme west of the riding, seem to have undergone little or no change. Harvest work has within the last two years been done to a small extent by machinery.”

The second set of extracts rather indicates, in some instances, that a sufficient supply of labour is an exceptional state ; in other

* Vol. i, p. 473.

cases it shows that there was a scarcity of employment in certain districts, ascribable to the wetness of the season:—

Donegal.—“This county affords more than a sufficient supply of labourers for the work to be done in all seasons; but the rate of hire in harvest is high, owing to the temporary absence of the working class in Scotland and England during the season.”

Fermanagh.—“In harvest, when there is a considerable pressure for a month, labourers get as much as 2s. and 2s. 6d. a-day, and women and children a proportionate amount. On occasions of this kind, labourers are sometimes fed, when at a distance from their residences. For at least half the year, there is scarcely any employment for an agricultural labourer, who is, in general, a married man, with a family, and may be considered in a state of destitution. The markets throughout this country are good, but very high.”

Monaghan.—“In harvest and spring the rates increase to nearly double the sums stated, but this lasts only about a month at each season. Labour is easily procured except in harvest and spring; but even then the supply is equal to the demand, but of course at the increased rates.”

Armagh.—“Labourers have been very badly off this spring for want of employment, owing to the wetness of the season; but should the weather set in dry, there will be plenty of employment.”

Down.—“In harvest, a considerable portion of the labouring classes from some portions of this county, proceed to England and Scotland, where they can obtain good wages.”

Leitrim.—“The labour market is generally overstocked, for many of the labourers go to Scotland and England to seek employment at hay and harvest time, during which period (for a few weeks) the average may run somewhat over the above rates.”

Sligo.—“During the busy time of harvest, wages increased to 12s. and 15s. per week, with diet, in several parts of the county; the labour market was dull, and employment rather scarce, after the close of the harvest.”

Mayo.—“In harvest the wages increase, for men, 8s. to 9s.; women, 5s. to 6s.; and children 3s. 6d. to 4s. weekly. There is no scarcity in the labour market.”

Roscommon.—“I beg to state that during the harvest season, the rate of wages is considerably higher than at other periods of the year, and it was difficult to get a sufficient supply of labourers at that season; at other seasons of the year, there is a sufficient number of labourers to be had in the various parts of the county. Great numbers of the labouring classes of the people have been, and are now employed, in the railway works between Roscommon and Castlebar (through Castlerea), and also upon the line from Longford to Sligo (through Boyle).”

Galway, E.R.—“The supply of labour is quite sufficient, and in fair demand, except in part of the winter months.”

Galway, W.R.—“The able-bodied labourers generally leave this country for England and Scotland in June, July, and August, where they procure higher wages than would be paid in any part of this country, and return home about the middle or latter end of October. I have to observe, that in very many instances the labourers* on small farms are the owners, and their families, and in some localities, I believe, barely any sum is paid for labour, particularly in the western and poorer places, where the people go in what is termed “core,” that is an exchange of labour.”

Westmeath.—“The weather has been so very unfavourable, that constant employment could not be given; consequently labourers are in many places in great distress. Agricultural pursuits continue in a very backward state; had the weather proved favourable, labourers would have had sufficient employment.”

* Sic in orig.

Meath.—“During last harvest the labouring classes were fully occupied, at wages averaging weekly 14s. 6d. for men, 7s. 11d. for women, and 4s. for children. After that season terminated, employment became very limited, and were it not for that afforded by the formation of the Dublin and Meath Railway, in the eastern division of the county, the labouring classes would have suffered even greater privation this winter than they have hitherto done.”

King's County.—“The demand for labourers at present is very limited, women and boys being nearly altogether without employment.”

Kildare.—“The labour market well supplied, and, in some places, in excess of the demand.”

Carlow.—“Owing to the wetness of season, the state of the labour market during the harvest was very unsteady. Wages rose and fell according to the changes of the weather, but there was no deficiency of hands. The crops did not ripen simultaneously, and the difficulties of saving them became considerable. The farmers took advantage of every favourable opportunity, and the labourers took advantage of the farmers, according to their emergencies. Consequently, mowing and reaping machines were brought more into use this season than in former years.”

Kilkenny.—“Labour market well stocked.”

Clare.—“The labour market was amply supplied during last harvest with hands.”

Tipperary, S.R.—“The labour market in this county is fully supplied, if not overstocked; at present labourers are much distressed for want of employment, owing to the wetness of the spring; but a more permanent effect is produced on the labour market of this county by the gradual but steady system pursued by proprietors in laying down their tillage lands for dairy or pasture purposes.”

Waterford.—“During one month in harvest, day's wages got up to 2s. for men, and 1s. for women, with food; but as the labour market is well supplied on all other occasions, day labourers are willing to hire with wealthy farmers at 10d. per day, without food, for the entire year.”

In respect to the other counties, the condition of the labour market was not particularized in the returns.

Two years since, Mr. W. Hamilton, Poor Law Inspector, whose district lay partly in Leinster and partly in Munster, reported that—

“The supply of labourers has latterly been so much less, and the demand for them so much greater than was the case a few years ago, that their condition as regards employment and money wages, has been gradually and steadily improving, were it not for the high prices of provisions which have prevailed during some of the periods of this progressive improvement, the condition of the labouring classes would probably be better now than it actually is. For some time, however, prior to the late rise in the prices of provisions, the labouring classes were, as regards regular employment, money wages, and cheap food, better off in this part of Ireland than perhaps at any former period: food was abundant and cheap, there was ample employment, and wages were comparatively high. Very recently the prices of the various necessities of life have increased from 15 to 20 per cent. I need not say that even a trifling increase in the price of any article of general consumption is sensibly felt by the labouring poor; in the course of my present inquiry I heard and saw enough to convince me that the supply of mere food, to say nothing of other necessities for the children of this class, even with the highest rate of wages, and the lowest market prices, is still far from what is generally imagined.”

It is fortunate that we have, in the evidence taken before Her Majesty's Commissioners appointed in 1843, to inquire into the “law and practice in respect to the occupation of land in Ireland,” ample means for instituting a comparison with the present rate of

wages. For this purpose the rate of men's wages, as given in that evidence by nearly four hundred witnesses, has been abstracted and tabulated (see Appendix, Table XV). The figures represent the *total* remuneration which the labourer gained by his weekly work; where food was given to him, the money rate was lower, generally about 2*d.* a-day. Placing the figures of the two periods, in juxtaposition, we obtain the following results in respect of each province, *viz.*—

Provinces.	Number of Counties Returned.	Weekly Wages of Men.		More in 1860.
		1843-4.	1860.	
I. Ulster	9	5 1	7 3½	2 2½
II. Connaught	5	3 9	7 -½	3 3½
III. Leinster	12	4 8½	6 11½	2 3
IV. Munster	6	4 -	7 1	2 11
Ireland	32	4 6	7 1	2 7

The rise in men's wages, throughout Ireland, is equal to 57·4 per cent. The highest rise, is in the province, which in 1843-4 was the lowest paid; namely,—Connaught, where it is equal to 87 per cent. It was stated, by some of the witnesses examined before Lord Devon's Commission, that in some parts of Galway, men were glad to obtain employment at 4*d.* and 6*d.* for a day of thirteen hours' work. The rates of both years, and for each county, will be found in the table appended.

The proportionate increase in the women's wages is in some of the counties much greater than that obtained by the men. These wages were for the earlier year, stated in the evidence in respect to the eight counties only, which are entered in the following table:—

Provinces and Counties.	Women's Weekly Wages.		More per Week in 1860.
	1844.	1860.	
I. ULSTER—			
1. Donegal	2 3	3 5	1 2
3. Antrim	3 -	4 6	1 6
4. Tyrone	3 -	4 1	1 1
II. CONNAUGHT	—	No return	—
III. LEINSTER—			
25. Kilkenny	3 -	3 -	nil
26. Wexford	3 6	3 6	nil
IV. MUNSTER—			
27. Clare	2 -	4 6	2 6
30. Kerry	2 -	4 -	2 -
31. Cork	2 6	4 2	1 8

It is worthy of note, that women's pay in the three counties of Munster, has, on the average, risen upwards of 100 per cent.; while in the two counties of Leinster no change has taken place.

The remuneration which the agricultural labourer gains, compared with the wages which the mechanic and skilled workmen obtain in the same district, may be fittingly presented in this part of the paper. The seventh and eighth annual reports of the Irish Poor Law office, afford the data required for such comparison. The following figures, representing the mean results of twelve inspectors' districts, are summarised from the table in the Appendix (Table XVI). They relate to the weekly wages paid in the years 1854 and 1855:—

	s. d.
An agricultural labourer	6 4
A weaver	9 6
„ tailor	12 -
„ shoemaker	12 8
„ baker	16 2
„ carpenter	17 10
„ bricklayer and mason	18 2

Taking the agricultural labourer's wages of 6*s.* 4*d.* as *unity*, the following scale is constructed to exhibit the proportionate weekly earnings of each description of worker; thus:—

The agricultural labourer	1
„ weaver	1½
„ tailor	2
„ shoemaker	2
„ baker	2½
„ carpenter	2¾
„ bricklayer and mason	3

But the means of the Irish agricultural labourer, like those of his fellow workman in England, are not measured by his money wages alone. His wife and children, as the returns indicate, assist him in the labours of the field; or the wife and daughters carry on some small domestic manufacture, such as sewing, by which 1*s.* 6*d.* to 2*s.* a-week is earned. Perhaps the wife "flowers" (embroiders?), for which she will obtain about the same rate of payment. Then, that very important animal in the economy of the peasant's cabin, is not to be forgotten,—the pig. He is bought for 10*s.** say; shares the "bed" and board † of his master, and in due season is sold for 2*l.*; or cut up into pork, or dried into bacon for the family consumption. Ducks and fowls frequently join the family circle, and to some profit, it may

* "Thirteenth Annual Report." Inspectors' Reports on the Diet of the Irish Poor.

† Ibid.

be inferred, from the remark of one of the inspectors, who states that—

"The other day I went into a small shop in a remote village of the county Donegal, and the man of the house told me he purchased 30,000 eggs from the peasantry about him every week during the summer, and he said he sold on an average 30/- worth of tea in a week."

The next remark was appended to the Tipperary dietary, printed in the next section. The worthy subject of it, must, one would imagine, be quite the "model peasant."

"The head of the family, M.K., is what is here called a cottier-labourer; he has 7s. a-week wages (constant work); he has a cottage and nearly two acres of land, for which he pays 2*l.* 1*s.* a-year, and he has also the grass of a cow, for which he pays 2*l.* 8*s.* a-year; he has a donkey, with which he draws turf-mould from the bog as manure; he keeps a pig, sometimes two, and his wife keeps and rears poultry (ducks and hens); she sells the young ducks and chickens and eats and sells the eggs. The pig and poultry account for the large consumption of potatoes, as they get the leavings liberally. The wife also makes and sells some butter. Their cottage is kept in good order, and the man, and wife, and children well clad; they have a few pounds saved, and never trouble the loan fund."

Mr. Horsley, speaking of the greater demand and more steady employment for labour, observes, in exemplification of the assistance which the wife, and some of the children, bring to the labourer's means, that—

"As regards the weekly wages of the classes in question, I think I am justified in stating, that any really able-bodied man can earn 1*s.* per diem on an average throughout the entire year; and in some districts where labour is scarce, and the demand for it consequently good and continuous, even a higher rate of wages obtained. And whilst this is the case, there is also at times a demand for the labour of the wife and the junior members of the family; so that, in the case of a family of six, including husband and wife, the weekly earnings may amount to 10*s.*, 11*s.*, or 12*s.*; and in some districts to even more than the last-mentioned amount. When to this amount of weekly earnings *in money* are added the advantages derivable by the family from growing potatoes for their own use, and for fattening a pig, and from the keeping of poultry, &c., it is manifest that even the worst circumstanced of the labouring classes are in a much better condition at present with respect to the quantity and quality of the food obtainable by them than they have been at any period since the famine years; and this gratifying fact is clearly evidenced by their greatly improved appearance in all that relates to health and comfort."

X.—Labourers' Expenditure for Food, Clothing, and Rent.

Minute and extensive information as to the dietaries of Irish agricultural labourers, is contained in the Reports of the Poor Law Inspectors, published in the appendix to the thirteenth annual report of the Irish Poor Law Office. A few extracts from that publication, will give a sufficient description of the diet upon which the agricultural poor of Ireland support themselves, and their families.

Mr. Robinson, Poor Law Inspector of a district of unions lying in eight counties in Ulster, states, that—

"The diet of the labouring classes in agricultural districts, consists principally of oatmeal or Indian-meal porridge, and potatoes with buttermilk. The proportion of potatoes consumed, varies according to the season of the year; but I think that at present they are used, on an average, at one meal.

"In some cases the heads of the family have tea, and flour or oatmeal cake for breakfast; and whenever this is the case, a portion is given to the children, who almost invariably partake of whatever food their parents are able to provide.

"Occasionally a piece of bacon is obtained for Sunday's dinner, and sometimes herrings or eggs are substituted for the usual dietary; but the consumption of these articles, as well as of tea, varies according to the circumstances of each labourer, some being unable to procure them at all; while others, whose means are increased by the earnings of their wives or children at weaving or other work, have tea three or four times a-week, and bacon always once a-week; and perhaps more frequently. New milk hardly ever forms part of the diet. In most cases the children have three meals in the day, those cases in which they have only two, being quite the exception; and in general, they are taken at regular hours."

Mr. R. Hamilton, Poor Law Inspector for another district in the same province, gives the following description of the labourer's dietary, and its cost:—

"The dietary which seems to be generally in use amongst the lowest classes of the peasantry, is—for breakfast, stirabout and buttermilk; for dinner, potatoes and buttermilk; and for supper, stirabout and buttermilk.

"The children invariably take their meals with their parents, and I think that in nearly every case, they have three meals in the day.

"It is extremely difficult to ascertain the quantity of food consumed by a family; and the statements made to me on this subject are conflicting.

"Where the provisions are purchased weekly, one would suppose the information to be tolerably correct, but on inquiry you find that dogs and poultry (generally a good many), and very often a young pig, are fed in the house.

"The average cost for maintenance outside of the house seems to be about 1*s.* a-week for each member of the family.

"A man in full employment, with a wife and five children over seven years of age, appears to purchase about 40 lbs. of meal, seven stone of potatoes, and thirty quarts of buttermilk."

From the same report, the five following dietaries have been selected, rather by way of illustration, than for the purpose of presenting them as average examples. The weekly cost per head for the five is 1*s.* 3*1/2d.*, which is much above Mr. Hamilton's average:—

County.	Total Number of Members of such Family.	Articles of Food generally used in the Family.	Quantity of each such Article used per Week.	Cost of each such Article at Ordinary Market Prices.	Number of Meals per Day given to the Children.	Observations as to Cooking, &c.
Donegal	8 (6 c.)	Indian meal Potatoes Buttermilk	30 lbs. 18 st. —	s. d. 2 9 2 9 — 4	3	—
				5 10		
Tyrone.....	6 (4 c.)	Oatmeal Indian meal Potatoes Tea & sugar Buttermilk	30 lbs. 30 , 8 st. — 36 qrs.	3 9 2 9 1 6 — 6 1 —	3	Meal used in stir-about.
				9 6		
Galway.....	6 (4 c.)	Oatmeal Potatoes Milk Eggs.....	24 lbs. 10 1/2 st. 24 qrs. 40	3 — 3 6 2 — 1 6	3	A large number of the labouring classes in this union feed hens.
				10 —		
Westmeath	5 (3 c.)	Indian meal Oatmeal Potatoes Milk Flour Tea Sugar	1 st. 1/2 , 10 , 24 qrs. 1/2 st. 1 oz. 1/2 lb.	2 6 2 6 1 6 — 6 0 7	—	—
				7 7		
Tipperary	6 (4 c.)	Potatoes Meal..... Milk Butter Tea Sugar Bacon	12 st. 14 lbs. 10 qrs. 1 lb. 2 oz. 1/2 lb. 1/2 "	4 — 1 7 — 10 — 9 — 6 — 3 — 3	3	Whole wheaten meal made into bread on a griddle, is used twice a-week; and tea and sugar is only used on Sundays, and meat once a-month, on Sundays; occasionally an egg.
				8 2		

Note.—“Thirteenth Report of the Irish Poor Law Office,” pp. 28—81.

In the same report the average weekly cost of a man, his wife, and four children, for food only, is set out for fifteen unions as 6s. 9 $\frac{3}{4}$ d.; or 1s. 1 $\frac{1}{2}$ d. each person.

In taking the average in country districts, of all those dietaries of independent labourers, which the Poor Law Commissioners published in 1860; and, for certain of which the particulars are given for separate counties, in Table XVII (Appendix), it will be found that the weekly cost, in respect of each member of the 168 families returned, was thirteen pence.

In the table which follows, the Ulster dietaries are greatly, in the matter of cost, below those of the other provinces. I am not able to offer any explanation of this circumstance:—

Provinces.	Number of Families.	Average Number of Persons in each.	Weekly Expenditure for Food.	Rate per Head.
Ulster	78	6·3	5 9 $\frac{1}{2}$	— 11·0
Connaught	12	6·3	8 1 $\frac{1}{2}$	1 3·5
Leinster	35	6·0	7 6 $\frac{3}{4}$	1 3·0
Munster	43	6·2	8 4	1 4·1
Total	168	6·4	6 11 $\frac{1}{4}$	1 1·0

Mr. Lucas, Poor Law Inspector for parts of the counties of Clare, Limerick, and Tipperary, has given the following parallel, of the quantity and description of food consumed by the same family, when supporting themselves by work, and when maintained in the Rathkeale Workhouse:—

OUT OF WORKHOUSE.

Existing by Earnings.

IN WORKHOUSE.
<i>Supported by Poor Rate.</i>
14 $\frac{1}{2}$ lbs. of Indian meal made into stir-about.
24 $\frac{1}{2}$ lbs. Indian meal.
25 , 6 ozs. wholemeal bread.
3 $\frac{1}{2}$, white bread.
52 $\frac{1}{2}$ pints of skim milk.
24 $\frac{1}{2}$, new “

“It will here be seen that although the quantity of solid food usually used by this family is greater than the workhouse allowance, still that is met by more nutritious and suitable food, and an adequate allowance of new and skim-milk, most essential elements for the development of the growth of children.”*

The change in the Irish dietaries, in consequence of the failures of the potato crop, and the consequent replacement, to a considerable extent, of that esculent by Indian-meal, eaten as “stirabout” or as “griddled bread,” is too remarkable to be overlooked. Mr. Horsley has stated, in the two paragraphs that follow, in what proportion the

* “Thirteenth Report of Irish Poor Law Commissioners.”

one description of food, supplies the place of the other, at the labourer's meal:—

"When Indian meal is exclusively used, the quantity per day consumed by a man, is 3 lbs.; by a woman, 2 lbs.; and by children under 15 years of age, 1½ lb. on an average.

"When potatoes are exclusively used, the quantity per day for a man is 10½ lbs.; for a woman, 7 lbs.; and for children under 15 years of age, from 5 lbs. to 6 lbs.

"When both articles are used, and this is generally the case except in the summer and autumn months, the quantity of each is made to correspond with the amount of nutritive matter that would be derived from the sole use of one or the other of them."*

The introduction of Indian-meal, as an article of food for the Irish labourer, is a dietetic and social advantage over his previous economy of some importance. The Irishman now depends less upon the potato, a root which has earned, eminently in Ireland, the bad repute of laziness and treachery; and, in exchanging 10½ lbs. of the tuber, for 3 lbs. of the meal, he gains a large increase of nutritive power.

In evidence of this fact, the subjoined table has been compiled upon the authority of Dr. Lankester's "Lectures on Food":—

Article of Food.	Heat-giving.			Flesh-forming.	Total.
	Starch.		Fat.		
	ozs.	grs.	oz. grs.		
3 lbs. maize	28	306	3 303	0 63	5 246 37 438
10½ lbs. potatoes.....	25	380	0 157	4 422	2 90 32 569

The superiority is considerable both in the heat-giving and flesh-forming properties of the substituted food, the nitrogenous compound gluten being more than doubled.

The alleged greater amount of nutrition in the English workhouse dietaries, has been brought into disparaging comparison with those sanctioned for the Irish workhouses. Upon this question, which bears very pertinently on the dietetic economy of the peasantry, the Poor Law Commissioners have made some comments; they state, in their report for 1860, that—

"An opinion has prevailed, that because the dietaries of English workhouses are much more expensive than those of Irish workhouses, and because the former are not redundant or wasteful in quantity, that the Irish dietary must be very deficient in nutriment.

"This is a mistake however, which has been exposed by English medical and chemical authority of the very highest character; for it has been found, on careful

* "Thirteenth Report of Irish Poor Law Commissioners."

analysis, that the cheap Irish dietary contains not only more nutriment, but more nutriment of the azotised, and therefore more valuable kind, than the expensive English dietary.

"The solution of this apparent anomaly is very simple. The expensive articles of meat, cheese, butter, and tea, do not contain nutriment in proportion to their costliness, or at all to be compared with the nutriment obtained for the same money value in oatmeal, Indian meal, whole meal of wheat, milk, and buttermilk, which are the staple articles of the Irish workhouse diet.

"For example, Dr. Carpenter has affirmed that 16 ounces of buttermilk, or one pint, contains as much nutriment as a quarter of a pound of meat. Now, in most parts of Ireland where butter is made for exportation, a gallon of buttermilk can be purchased by retail for less than 2d., i.e. at the rate $\frac{1}{4}$ d. per pint. Now, a quarter of a pound of good meat is worth, both in England and Ireland, about 1½d.; and assuming the high chemical authority above quoted to be correct, here is at once a proof that the same amount of nutriment may be had by the use of one article of food which it requires six times the expenditure to procure from another article.

"We believe that this and similar comparisons furnish the true explanation, not only of the difference in cost of a sufficient workhouse dietary in England, and a sufficient workhouse dietary in Ireland, but of the still more difficult social problem, how a poor man, not occupying land, and earning in Ireland 1s. per diem, can support a wife and four or five children, and pay his rent and purchase clothing."

The County Inspector for Antrim, states in respect of the year 1860, that "the produce market is very high":—

	s. d.	s. d.
Potatoes, per stone (14 lbs.)	— 8 to — 9	
Bread, per 4 lbs.	—	— 8
Flour, per stone.	—	2 6
Oatmeal, "	—	2 4
Meat, per lb.	— 6 , ,	— 9
Butter, "	1 2 , ,	1 4
Milk, per quart	—	— 3½

And, he adds, that "all other commodities" are "equally high."

The cost of the clothing used by an Irish peasant, and by his family, has now to be considered. I have in this place to acknowledge my obligations to Mr. Benjamin Banks, the gentleman who holds the position of chief clerk, in the office of the Poor Law Commissioners for Ireland. Mr. Banks has furnished, for this paper, several very valuable accounts of the quantity, quality, and price of articles of clothing, such as are actually purchased by the agricultural labourers in various parts of the sister country. Some of these accounts will be found in the Appendix *in extenso* (see Tables XVIII).

The cost of one year's clothing for a man, his wife, and five children, in the county—

	£ s. d.
Of Mayo is returned as	5 9 4
" Galway , ,	4 3 —
" Limerick , ,	8 — 6
" Donegal , ,	5 9 8

In the Donegal account, printed below, there is a remark on the labourer's clothing, which, as exhibiting the practice of the people, in that part of the country, in the use of their habiliments, is instructive. Speaking of the labourer, from whom the particulars of the cost of the family clothing was obtained, my informant says he "is a fair specimen of the class, and was the only one from whom I could obtain the required information, and in fact scarcely a labourer in this county could tell what his clothes cost him. As for females, those who can afford to buy shoes, wear them not more than six hours in the week."

The next account was procured for me by Mr. Banks, from the labourer's employer. This shows that the weekly rate of expenditure in this family was only $2\frac{1}{4}$ d. per head. The cost in the Irish workhouses for clothing, was $1\frac{3}{4}$ d. above that of the labourers; or $4\frac{1}{4}$ d.

Cost of the Clothing of an Agricultural Labourer, his Wife, and Family (consisting of Five Children under 12 years), for One Year. Counties of Dublin and Kildare.

Articles of Clothing.	Price.	Remarks.
<i>Husband—</i>		
Coat (frieze, value 17. will 2 last years)	10 -	
Trousers	6 -	
Vest	4 -	
Shirts (two)	4 -	
Hat (or cap)	4 -	
Shoes	6 -	
Stockings (3 pairs)	2 -	
	1 16 -	
<i>Wife—</i>		
Shifts (two)	2 -	
Frock	5 -	
Boots	4 6	
Neckerchief	1 6	
Shawl	2 6	
	15 -	
<i>Children—</i>		
Five under 12 years	1 10 -	The children seldom wear shoes till they are 6 or 7 years of age, and even to 15 years, some of them.
Total	4 1 -	

The succeeding table gives the particulars of the actual disbursements for the clothing of an agricultural labourer, in, and for the year 1860. This man resides in the parish of Inishmacsaint, county Donegal.

Articles of Clothing.	Price.	Remarks.
<i>Husband—</i>		
Coat 24s., trousers 7s. 6d., vest 5s., shirt 2s., shoes 8s., stockings 1s.....	2 7 6	<i>Husband in use—</i> Flannel vest, cap and handkerchief in use for 8 months.
<i>Wife—</i>		
Gown 5s. 6d., petticoat 5s. 4d., shift 1s. 10d., handkerchief and cap 2s. 6d.	- 15 2	<i>Wife—</i> Stockings and aprons in use for 14 months.
<i>Child No. 1—</i>		
Frock and underclothes	- 15 -	<i>Child—</i> Shoes and socks for 12 months, occasionally in use.
<i>Child No. 2—</i>		
Frock 4s. 6d., petticoat 5s.	- 9 6	
<i>Child No. 3—</i>		
Petticoat and shift	- 7 6	
	4 14 8	

Note.—There are not many of what may be called an agricultural labourer's class in constant employment in this country. The labourer here is dependant on occasional work given him weekly or monthly, and his garments are not costly; sometime one-half the year without wearing a coat which, when new would last him three years. John Gilvanny is a fair specimen of the class, and is the only one from whom I could obtain the required information: in fact, scarcely a labourer in this country could tell what clothes cost him. As for females, those who can afford to buy shoes, wear them not more than six hours in the week.

In the workhouse of the Kilmallock Union (Tipperary and Limerick), the materials for clothing the inmates are made up in the house. The cost of the material for each garment, is set out in Table XIX (Appendix).

The materials for the clothes of

	£ s. d.
A man cost	1 6 -
" woman	1 1 1 $\frac{1}{2}$
" boy under 15.....	- 19 -
" girl "	- 14 2
	4 - 3 $\frac{1}{2}$

In the Clifden workhouse, the clothes for

	£ s. d.
A man cost	1 - 2
" woman	- 12 5
" boy 12 years old.....	- 8 6
" girl "	- 10 4
	3 11 5

In the Ballyshannon workhouse, the year's clothing for

	£ s. d.
A man costs	1 - 9
„ woman „	- 15 9
„ child's „	- 12 -
	<hr/>
	2 8 6

The rent which the Irish labourer pays for his cabin or for his cottage, varies from 25s. to 60s. a-year, according to the extent of ground which may be attached to it.

The witnesses examined before the Lands Commission, in many instances stated the cottage rents then current. Though that Commission sat but seventeen years ago, the condition of Ireland has so materially improved since, that equivalent advantages of house shelter and arable ground, may be no longer attainable for the same rent. The information was given on such good authority, that it seemed desirable to abstract and tabulate it for this paper (Table XX Appendix).

The lowest rents named were 15s. and 20s. a-year; but, in most places, these payments would only secure mere cabins without garden or other ground. The rent most frequently mentioned was 40s.; half-an-acre of land, sometimes more, would be included at this figure. A common rental was 52s.; paid by the cottier by performing a certain quantity of work for the farmer as proprietor. Rents at 60s. and 80s., were not unfrequent; but at these rates a greater area of cultivation was secured, with occasional additions of "cow's grass."

The next table is added as exhibiting upon the best authority, some statistics bearing on the condition of the labouring poor of Ireland, twenty years ago. The Land Commission employed the "mud cabin" ratio, as the most exact exponent of the misery of the peasantry in different parts of the country:—

Ireland.	Number of Farms.	1 to 5 Acres.	5 to 15 Acres.	15 to 30 Acres.	Over 30 Acres.	Number and Ratio of Mud Cabins of One Room and no Window.	
						No.	Pr. cent.
Ulster	234,499	43	42	11	4	125,898	30·4
Connaught	155,204	64	29	4	3	121,346	49·9
Leinster	133,220	37	34	16	13	79,921	26·1
Munster	162,386	35	38	17	10	164,113	45·0
Average of Ireland	685,309	45	37	11	7	491,278	37·0

Note.—Census of 1841. "Digest of Lands Commission."

The figures in the two last columns have been abstracted from

the Irish census of 1841; at that time more than *a third* of the dwelling places of Ireland's denizens, were *one-roomed, windowless, mud cabins!*

THE UNITED KINGDOM.

XI.—General Recapitulation.

It will be useful, in conclusion, to bring some of the principal results of the investigation pursued in this, and the former paper upon the rate of agricultural wages, into juxtaposition.

1st. The average weekly rate of wages to agricultural labourers in the United Kingdom in the half-year ended at Christmas, 1860, was, for:—

	Men.	Women.	Children under 16.	Men's Weekly Earnings by Task Work.
	s. d.	s. d.	s. d.	s. d.
England and Wales	11 6 $\frac{1}{2}$	4 8 $\frac{1}{4}$	3 7 $\frac{1}{4}$	14 9 $\frac{1}{2}$
Scotland	12 11 $\frac{1}{2}$	5 7	4 3 $\frac{3}{4}$	14 6 $\frac{3}{4}$
Ireland	7 1 $\frac{1}{2}$	3 11	2 11 $\frac{1}{2}$	9 4 $\frac{3}{4}$

2nd. The rise in the weekly wages of the men appears to have been as hereafter stated:—

	Dates.	Interval in Years.	Weekly Increase.	Increase per Cent.
			s. d.	
England and Wales	1821-37	13	2 8	28·7
	'37-60	23	1 3	12·1
Scotland	1835	20	3 9 $\frac{1}{2}$	49·5
	'44-60	16	2 7	57·4
Ireland	1844-60			

3rd. The average weekly cost per head, for man, woman, or child, for food and clothing, appears to have been in 1860 for—

	Food.	Clothing.	Total.
	s. d.	d.	s. d.
England and Wales	1 9	3 $\frac{1}{2}$	2 0 $\frac{1}{2}$
Scotland	1 4	6 $\frac{1}{4}$	1 10 $\frac{1}{2}$
Ireland	1 1	2 $\frac{3}{4}$	1 3 $\frac{3}{4}$

4th. The average cost per week for food and clothing, supplied to the in-door paupers of both sexes, at all ages, was :—

In the Workhouses of	Food.	Clothing.	Total.
England and Wales	2 10	3 1	3 1
Scotland	2 7	4	2 11
Ireland	2 2 1	4 1	2 6 1

It is to be observed that there is a much nearer approach to equality of charge in this table, than in the preceding one.

5th. The payments of the weekly wages of the men in 1860 varied in their range, thus—

	The Lowest Paid County.	The Highest Paid County.	
England and Wales	9 -	15 -	
Scotland	11 -	15 -	
Ireland	6 -	8 9	

If Shetland were included, the *minimum* in Scotland would be 8s. In Ireland there are several counties at 6s.; including Roscommon, the *maximum* would be 10s. 2d. These figures are excluded from the table because, for reasons already stated, both the rates appear exceptional.

6th. How far the poor rates may have supplemented the general wages fund of each country, may be inferred from the subsequent comparison of the expenditure for relief to the poor, made on an average of the *ten* years ended in 1860:—

	Rate per Head on Population.	
England and Wales	5 9 1	
Scotland	3 11 1	
Ireland	2 1 1	

APPENDIX—SCOTLAND.

(I.)—Statement of so much of the Earnings of Agricultural Labourers in Scotland, as consisted of the WEEKLY MONEY WAGES to Men, Women, and Children, and the Task Work Payments to Men, during the Half Year ended 31st December, 1860.

Number of Counties making Returns.	Divisions.	Weekly Wages.							
		Men.				Women.			
		Range.	Average.	Range.	Average.	Range.	Average.	Range.	Average.
4	I. NORTHERN GROUP:	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
		8 - @ 12 -	10 7 1	4 2 @ 6 -	4 9 1	11 6 " 13 -	12 3	4 - " 6 6	5 3
		11 - " 14 -	14 4	5 - " 6 4	5 5	14 - " 14 6	12 2 1	4 - " 6 6	5 1 1
2		8 - " 14 6	12 2 1	4 - " 6 6	5 1 1				
		12 - @ 13 6	12 7	4 6 @ 5 6	4 11	12 - " 15 -	13 10 1	6 - " 7 6	6 6
		12 - " 15 -	13 2	4 6 " 7 6	5 7 1				
3	II. MIDLAND GROUP:	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
		12 - @ 14 6	13 2	6 - @ 7 6	6 10	4. East Midland ...	12 7	4 6 @ 5 6	4 11
		13 - " 15 -	13 9 1	5 - " 6 -	5 10	5. West Midland ...	13 10 1	6 - " 7 6	6 6
5		11 - " 15 -	11 9	5 - " 6 -	5 6				
		11 - " 15 -	13 2	5 - " 7 6	5 11 1				
		8 - @ 15 -	12 11 1	4 - @ 7 6	5 7				
4	III. SOUTHERN GROUP:	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
		12 - @ 14 6	13 2	6 - @ 7 6	6 10	6. South-Western...	12 7	4 6 @ 5 6	4 11
		13 - " 15 -	13 9 1	5 - " 6 -	5 10	7. South-Eastern ...	13 10 1	6 - " 7 6	6 6
2		11 - " 12 -	11 9	5 - " 6 -	5 6	8. Southern ...	11 9	5 - " 6 -	5 6
		11 - " 15 -	13 2	5 - " 7 6	5 11 1				
		8 - @ 15 -	12 11 1	4 - @ 7 6	5 7				
29	Scotland								

Number of Counties making Returns.	Divisions.	Weekly Wages.				Weekly Earnings at Task Work.			
		Children under 16 Years.		Men.		Children under 16 Years.		Men.	
		Range.	Average.	Range.	Average.	Range.	Average.	Range.	Average.
4	I. NORTHERN GROUP:	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
		3 - @ 6 -	3 10	12 - @ 13 -	12 6	1. Northern ...	3 10	12 - @ 13 -	12 6
		2 9 " 4 -	3 4 1	13 - " 13 6	13 3	2. North-Western...	3 4 1	13 - " 13 6	13 3
2		4 - " 5 -	4 7	14 - " 14 6	14 4	3. North-Eastern ...	4 7	14 - " 14 6	14 4
		2 9 " 6 -	4 0	12 - " 14 6	13 6				
		3 6 @ 4 9	3 11	13 6 @ 15 -	13 10 1				
3	II. MIDLAND GROUP:	3 - " 5 -	4 1 1	15 - " 17 -	15 8	4. East Midland ...	3 11	13 6 @ 15 -	13 10 1
		3 - " 5 -	4 1 1	13 - " 17 -	15 8	5. West Midland ...	4 1 1	15 - " 17 -	15 8
		3 - " 5 -	4 1 1	13 - " 17 -	14 7 1				
5	III. SOUTHERN GROUP:	2 - @ 6 6	4 4	12 - @ 15 -	13 6	6. South-Western...	2 - @ 6 6	12 - @ 15 -	13 6
		4 - " 6 -	4 1 1	15 - " 18 -	16 8	7. South-Eastern ...	4 1 1	15 - " 18 -	16 8
		4 - " 6 -	5 -	12 - " 13 6	12 9	8. Southern ...	5 -	12 - " 13 6	12 9
6		2 - " 6 6	4 9 1	12 - " 18 -	15 3				
		2 - " 6 6	4 9 1	12 - " 18 -	15 3				
		2 - @ 6 6	4 3 1	12 - @ 18 -	14 6 1				
2	Scotland	2 - @ 6 6	4 3 1	12 - @ 18 -	14 6 1				

Note.—This return is deficient in respect of the wages in four counties, namely, Banff and Aberdeen in the north-eastern, and Roxburgh and Dumfries in the southern division.

(II.)—Statement of the WEEKLY MONEY WAGES of Agricultural Labourers in the counties of Scotland; of the Weekly Earnings by Task Work of Men; of the Harvest Weekly Wages of Men, Women, and Children, during the Half Year ended December, 1860.

Divisions and Counties.	Weekly Wages.			Weekly Earnings by Task Work.	Harvest Weekly Wages.		
	Men.	Women.	Children under 16.		Men.	Women.	Children under 16.
I. NORTHERN.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1. Shetland	8 -	4 6	3 -	none	—	—	—
2. Orkney	12 -	6 -	6 -	12 -	—	—	—
3. Caithness	11 6	4 6	3 -	none	—	—	—
4. Sutherland	11 -	4 2	3 5	13 -	15 -	9 -	9 -
II. NORTH-WESTERN.							
5. Ross & Cromarty	11 6	4 -	2 9	13 -	14 -	—	—
6. Inverness	13 -	6 6	4 -	13 6	—	—	—
III. NORTH-EASTERN.							
7. Nairn	14 -	5 -	4 -	14 -	—	—	—
8. Elgin	14 6	5 -	4 8	14 6	—	—	—
9. Banff			no return				
10. Aberdeen			no return				
11. Kincardine	14 6	6 4	5 -	14 6	19 -	13 -	—
IV. EAST MIDLAND.							
12. Forfar	13 6	5 6	4 9	13 6	25 -	—	—
13. Perth	12 -	5 -	4 -	15 -	26 6	—	—
14. Fife	12 -	4 6	3 6	13 6	15 -	12 -	—
15. Kinross	12 -	4 6	3 6	13 6	15 -	8 6	—
16. Clackmannan	13 6	5 -	—	—	19 -	12 -	—
V. WEST MIDLAND.							
17. Stirling	15 -	6 -	4 6	15 -	21 -	13 6	—
18. Dumbarton	15 -	7 6	5 -	17 -	24 -	12 -	—
19. Argyll	12 -	6 6	4 -	15 -	18 -	—	—
20. Bute	13 6*	6 -	3 -	—	15 -	—	—
VI. SOUTH-WESTERN.							
21. Renfrew	12 -	7 6	6 6	12 -	21 -	—	—
22. Ayr	13 -	6 -	4 6	—	21 -	—	—
23. Lanark	14 6	6 -	2 -	15 -	18 -	12 -	—
VII. SOUTH-EASTERN.							
24. Linlithgow	13 -	6 -	6 -	16 6	—	—	—
25. Edinburgh	14 -	6 -	4 -	18 -	—	12 -	—
26. Haddington	13 6	6 -	4 -	16 -	—	—	—
27. Berwick	15 -	5 -	5 -	15 -	—	—	—
28. Peebles	13 -	6 -	6 -	18 -	—	9 -	—
29. Selkirk	14 2	6 -	4 7	16 6	22 6	15 -	—
VIII. SOUTHERN.							
30. Roxburgh			no return				
31. Dumfries			no return				
32. Kirkcudbright	12 -†	6 -	6 -	12 -	16 -	8 -	—
33. Wigtown	11 6	5 -	4 -	13 6	—	—	—

* Inclusive of the value of the food allowed, estimated at 3s. 6d. per week.

† When food is given, the wages are about 4s. less.

Note.—In Elgin the wages with food and lodging in addition, are 7s. 9d., 2s. 10d., and 2s. 8d. for men, women, and children respectively. A similar remark is applicable to Kincardine, where the wages, exclusive of the value of the food given, are 10s. 6d., 4s., and 2s. 6d.

(III.)—Statement of the WEEKLY RATE of MONEY WAGES Paid to Agricultural Day Labourers in Seventeen Counties in Scotland, in the Years 1835 to 1844, as compared with the Rate paid in 1860.

N.B.—These labourers receive no benefit in addition to their money wages.

Divisions and Counties.	Sex of Labourer.	Date of Return.	Weekly Wages.	Date of Return.	Weekly Wages.	Increase in 1860.
I. NORTHERN GROUP:			s. d.		s. d.	s. d.
1. Shetland	Man	1841	6 6	1860	8 -	1 6
2. Orkney	Man	'41-42	6 10	"	12 -	5 2
	Woman	"	3 -	"	6 -	3 -
3. Caithness	Man	'40	8 9	"	11 6	2 9
5. Ross and Cromarty	Man	'35-36	7 8	"	11 6	3 10
	Woman	"	3 -	"	4 -	1 -
6. Inverness	Man	'35-41	8 6	"	13 -	4 6
	Woman	"	3 6	"	6 6	3 -
8. Elgin	Man	'35-42	9 -	"	14 6	5 6
	Woman	"	3 4	"	5 -	1 8
11. Kincardine	Man	'36-42	9 6	"	14 6	5 -
	Woman	"	4 -	"	6 4	2 4
II. MIDLAND GROUP:						
12. Forfar	Man	1833-42	9 -	1860	13 6	4 6
	Woman	"	4 -	"	5 6	1 6
13. Perth	Man	'37-43	9 -	"	12 -	3 -
	Woman	"	4 -	"	5 -	1 -
14. Fife	Man	'34-38	9 -	"	12 -	3 -
16. Clackmannan	Man	—	11 1	"	13 6	2 5
	Woman	—	3 3	"	5 -	1 9
18. Dumbarton	Man	'39	10 8	"	15 -	4 4
III. SOUTHERN GROUP:						
23. Lanark	Man	1834-40	10 6	1860	14 6	4 -
25. Edinburgh	Man	'39-45	9 9	"	14 -	4 3
28. Peebles	Man	'34	9 6	"	13 -	3 6
32. Kirkcudbright	Man	'43-44	8 6	"	12 -	3 6
	Man	'38-39	8 9	"	11 6	2 9

Note.—The wages of the earlier years are abstracted from the "New Statistical Survey of Scotland;" those of 1860 from House of Commons Paper, No. 244, Sess. 1861.

(IV.)—Statement of the YEARLY RATE of MONEY WAGES Paid to Farm Servants in Thirteen Counties of Scotland, in the Years 1835 to 1843, as compared with the Rate paid in 1860.

N.B.—These labourers have, in addition to their wages, board and lodging provided by the farmers; or an equivalent benefit in the shape of rent, food, and firing.

Divisions and Counties.	Description of Labourer.	Date of Return.	Yearly Wages.	Date of Return.	Yearly Wages.	Increase in 1860.
I. NORTHERN GROUP:						
2. Orkney	Ploughman	1841-42	£ 7 3 6	1860	£ 12 -	4 16 6
4. Sutherland	Farm labourer (man) " (woman)	{ '34 " "	7 - - 3 6 8	," " "	18 - 10 15	11 - - 6 8 4
5. Ross and Cromarty*	Ploughman	'35-36	7 - -	,"	11 -	4 - -
6. Inverness	Farm labourer (man) " (woman)	{ '35-41 " "	9 6 3 3 9 -	," " "	17 - 6 10	7 13 9 3 1 -
11. Kincardine	" (man) " (woman)	{ '36-42 " "	12 - - 4 5 6	," " "	27 6 10 8	15 6 - 5 2 6
II. MIDLAND GROUP:						
12. Forfar	Farm labourer (man) " (woman)	{ 1833-42 " "	11 5 - 5 14 6	1860	21 3 9 10	9 18 - 4 5 6
13. Perth	Ploughman	'37-43	13 4 6	,"	18 4	4 19 6
14. Fife	" (without food) " (with food)	{ '36-38 " "	22 10 - 10 16 -	," " "	36 8 18 10	13 18 - 7 14 -
18. Dumbarton	" (without food)	'39	21 - -	,"	22 -	1 - -
19. Argyll	" "	'43	12 10 -	,"	18 -	5 10 -
	Shepherd	"	11 2 6	,"	20 -	8 17 6
III. SOUTHERN GROUP:						
21. Renfrew	Ploughman	{ 1837-38	19 - -	1860	23 -	4 - -
	Dairymaid	"	8 10 -	,"	10 10	2 - -
23. Lanark	Ploughman Dairymaid	{ '34-40	14 4 - 8 5 -	," " "	21 - 14 -	6 14 - 5 15 -
32. Kirkcudbright	Farm servant (man) (without food) Farm servant (man) (with food)	{ — —	25 - - 11 10 -	," " "	31 4 20 16	6 4 - 9 6 -

* Ross and Cromarty. In two parishes of this county, the entire cost, including board and lodging of a male farm servant for a year, was then stated to be 20*l.*, the cost in 1860 was 28*l.* 12*s.*

Note.—The wages of the earlier years are abstracted from the new "Statistical Survey of Scotland;" those of 1860 from House of Commons Paper, No. 244, Sess. 1861.

(V.)—Statement of the YEARLY ALLOWANCES made in several Counties to those Male Farm Labourers who are Paid partly in Money and partly in kind. Year 1860.

Articles of Food.	Orkney.	Sutherland.	Ross.	Inverness.
Oatmeal	840 lbs.	910 lbs.	980 lbs.	936 lbs.
Potatoes	10 barrels	280 ,	—	1,456 ,
Milk	182½ gallons.	43 gallons.	{ Quantity not stated	137 gallons.

Articles of Food.	Elgin.	Fife.	Stirling.	Liuilthgow.	Edinburgh.*
Oatmeal	936 lbs.	910 lbs.	910 lbs.	910 lbs.	910 lbs.
Potatoes	520 ,	746 ,	—	672 ,	490 ,
Milk	—	182½ gallons.	—	—	—

* House of Commons Paper, No. 244, Agricultural Labourers (Scotland).
Sess. 1861.

(VI.)—Cost of Food, Firing, Clothing, and Rent, in the Parish of Arbroath, Forfarshire, in the years named.

Articles of Consumption.	1812.	1819.	1826.	1833.
<i>Food, &c.—</i>				
Wheaten bread, per quartern	s. d.	s. d.	s. d.	s. d.
Oatmeal, per peck of 8 lbs. Dutch*	1 6	- 11	- 10	- 8
Potatoes, per stone of 16 lbs. , , ,	—	1 4	1 4	1 -
Barley, per lb. avoirdupois	—	- 4½	- 4½	- 4
Beef, "	- 8	- 7	- 6	- 5
Mutton, "	- 8	- 7	- 6	- 5½
Cheese, "	—	- 4	- 4	- 4
Butter, "	—	- 10½	- 10	- 8
Bear, per 18 gallons	10 -	10 -	10 -	9 -
Soap, per lb.	—	- 9½	- 7	- 6½
Candles, , ,	—	- 11	- 7	- 6
Brown sugar, per lb.	—	- 10½	- 8½	- 7
Tea, per lb.	—	7 -	6 6	5 6
Salt, "	—	- 2	- 5½	- 4
Coals, per imperial barrel	1 3½	1 3½	1 2	1 1
<i>Clothing—</i>				
Hats, each	7 -	6 6	6 -	5 6
Men's shoes, per pair	10 -	10 -	10 -	9 6
Women's , ,	6 6	6 6	6 6	6 -
Coarse calico, per yard	1 -	1 1	- 7	- 6
<i>House Rent—</i>				
Per year	60 -	55 -	55 -	55 -

* The Dutch pound is equal to 20 oz. avoirdupois.
Note.—" New Statistical Account of Scotland."

VII.—Statement of the PRICES of FOOD in the undernamed Parishes of Scotland for the Years respectively denoted.

Articles of Food.	Inverness-shire.	Ross and Cromarty.	Kincardineshire.		
	Inverness, 1835.	Glenlivet, 1836.	Bewic, 1837.	Fordoun, 1837.	Fettercairn, 1837.
Beef, per lb. (imperial)	d. s. d.	s. d.	d. s. d.	s. d.	s. d.
— 4½	—	—	4 to —	5½	5½
Mutton „ „	— 4	—	—	— 5	— 5½
Veal „ „	— 3½	—	—	— 6	— 5½
Pork „ „	— 4	—	—	— 4	—
Haddock, each	— 2	—	—	—	—
Cod „	1 to 1 —	—	—	—	—
Fowls, per pair	1 9	—	—	1 1½	2 6
Chickens „	— 10½	—	—	— 11	1 1½
Potatoes, per cwt.	2 —	—	—	—	—
Eggs, per dozen	—	—	— 5½	— 6	— 5
Cheese, per stone 24 lbs.	—	7 6	7 —	—	7 6
Butter, per lb.	—	— 8	— 7½	— 7	— 9
Oatmeal, per boll of 140 lbs.	—	18 —	—	—	20 —
Articles of Food.	Orkney.	Elginshire.	Aberdeenshire.		Dumfries.
	Sandwich, 1841.	Knockando, 1835.	Drumlaide, 1840.	Crimond, 1842.	Keir, 1836.
Beef, per lb. (imperial)	s. d.	s. d.	s. d.	d. s. d.	s. d.
— 2	—	—	— 5½	— 4½	—
Mutton „ „	— 2	—	—	— 5½	— 4½
Cod, each	—	—	—	4 to — 6	—
Fowls, per pair	1 4	1 2	1 10	2 —	—
Chickens „	—	— 7	—	—	—
Potatoes, per cwt.	3 — per barrel	—	—	—	1 —
Eggs, per doz.	— 3	— 4½	— 3½	— 5	—
Cheese, per stone 24 lbs.	—	8 —	—	6 6	3 6
Butter, per lb.	— 6	— 9	— 5½ fresh	— 7½	— 8
Oatmeal, per boll of 140 lbs.	—	—	—	1 3 pr. peck	—
Milk, skimmed, per Scotch pint	—	— 1	—	—	—
Milk, sweet, per Scotch pint	—	— 2	—	—	—

Note.—Abstracted from the "New Statistical Account of Scotland," vide the reports on the parishes named above.

(VIII.)—Shop PRICES of FOOD purchased by Agricultural Labourers in Three Counties of Scotland, in the Half Year ended 31st December, 1860.

No. 1.

Shop PRICES paid by Agricultural Labourers for Food, Soap, and Candles, in the parishes of the Orkney Islands, for the Half Year ended Christmas, 1860, or thereabouts.

Articles of Food, &c.	Price.	Remarks.
Bread	s. d. — 6	Second quality
Flour	7 „ 1 —	"
Oatmeal	14 „ 1 8	For 14 lbs. of black; white, 1s. 9d. per 14 lbs.
Barley	1 „ — 1½	This is for pot or pearl barley. Beremeal is sold at 1s. 3d. per 14 lbs., and barleymeal at the same price
Bacon	per lb. — 6	Very fluctuating
Butcher's meat	— 5 — 6	Generally not above 5d. to the labouring classes
Cheese	„ — 3	This is skim milk cheese, the manufacture of the county; other kinds run as high as 6d.
Butter	„ — 8	Fluctuating, seldom higher
Tea	„ 4 —	
Sugar	„ — 5	
Soap	„ — 5	
Candles	„ — 8	
Potatoes	3 — 4 —	Sometimes as high as 5s. (for 13 stones 5 lbs.), but these and all sorts of vegetables are seldom purchased, indeed more frequently are sold by labourers in Orkney
Vegetables	—	
Fish, salt and fresh	1 8	This for salt fish, per 14 lbs.; fresh fish there is hardly a regular price for, as any one may catch for himself of an evening enough for a family
Coals, &c., &c., &c.	17 —	Per ton. Peats are most used by labourers, and are cut, dried, and carried by themselves

(VIII.)—Shop Prices of Food, &c.—Contd.

No. 2.

Shop Prices paid by Agricultural Labourers for Food, Soap, and Candles, in the parish of Dunkeld, Perthshire, for the Half Year ended Christmas, 1860, or thereabouts.

Articles of Food, &c.	Price.	Remarks.
	s. d.	s. d.
Bread, per 4 lbs.	— 7 ½	— Per lb. Very good quality
Flour, „ 7 „	1 9 —	Per peck. Very little used
Oatmeal	1 1 —	
Barley	2 — to 2 3	Per stone 14 lbs.
Bacon, per lb.	—	Not used in this shape
Butcher's meat	— 8 to — 9	{ Per lb. Very little used except at new year. Almost every family have a pig, which they use when fattened
Cheese	— 3 ½ „ — 6	Per lb.
Butter	1 — „ 1 2	“
Tea	3 4 „ 4 —	“
Sugar	— 5 „ — 6	“
Soap	— 4 ½ „ — 5	“
Candles	— 7 —	“
Potatoes	1 — „ 1 2	Per peck
Vegetables	—	{ Very few used, except what people rear for themselves
Fish, fresh and salt	—	Very few seen in this quarter
Coals	1 — to 1 2	{ Per ewt. Ought to be bought a great deal cheaper

(VIII.)—Shop Prices of Food, &c.—Contd.

No. 3.

Shop Prices paid by Agricultural Labourers for Food, Soap, and Candles, in the parish of Campbeltown, in the Half Year ended Christmas, 1860, or thereabouts.

Quality (per pound or per pint, &c.) of Food.	Price.	Quality (per pound or per pint, &c.) of Food.	Price.
	s. d.		s. d.
Bread, fine	— 7	Sugar	5d. and 6d.
American flour	1 4 ½	Potatoes, per stone 14 lbs.	— 7
Fine overhead flour	1 2 ½	Vegetables—	
„ second „	1 — ½	Turnips ... per stone	— 3
„ oatmeal	— 11 ½	Carrots „ „	— 6
Pearl barley	1 5	Fish, fresh ... per lb.	— 2
Second „	1 —	„ salt, from ...	2d. to 3d.
Bacon	6d. to 7d.	Soap	— 4 ½
Butcher's meat	6d. „ 8d.	Candles, dip ... per lb.	— 5
Cheese, common	— 3	„ mould „ „	— 8
„ Dunlop	— 7	„ composite „ „	— 10
„ Cheddar	— 8	Gas	6 6
Butter	— 1	Coals	per ton, from 11s. to 12s.
Tea	3 10		
	4 —		
	4 4		

(IX.)—Shop Prices of Articles of Clothing purchased by Agricultural Labourers in Three Counties of Scotland, in the Half Year ended 31st December, 1860.

No. 1.

Shop Prices paid by Agricultural Labourers for Articles of Clothing in the parishes of the Orkney Islands, in the Half Year ended Christmas, 1860, or thereabouts.

Articles of Clothing.	Price.
	£ s. d.
<i>Husband's—</i>	
Moleskin trousers	per pair
„ jackets	„
„ vests	each
Cloth coat	„
„ trousers	„
„ vests	„
Sergo drawers	„
Striped cotton shirt	„
Socks	per pair
Boots, gutta percha soles	„
	2 16 1
<i>Wife's—</i>	
Print dress	— 3 6
Worsted „	— 5 —
„ shawl	— 4 —
Cotton shift	— 10 —
„ petticoat	— 1 6
Flannel „	— 3 6
Print apron	— 4 —
Leather shoes, gutta percha soles	per pair
Stockings	„
	1 2 8
<i>Three Girls'—</i>	
Three print dresses	— 6 —
„ worsted „	— 8 —
„ shawls	— 5 —
„ cotton shifts	— 1 6
„ petticoats	— 2 6
„ flannel „	— 6 —
„ print aprons	— 1 —
„ pairs stockings, at 4d.	— 1 —
„ „ shoes, at 3s. 6d.	— 10 6
	2 1 6
<i>Two Boys'—</i>	
Two pairs moleskin trousers	— 6 —
„ moleskin jackets	— 8 —
„ „ vests	— 4 6
„ suits cloth clothes for Sunday, at 10s. per suit	1 — —
„ stripe shirts	— 2 6
„ pairs drawers	— 4 —
„ „ stockings, at 9d.	— 1 6
„ „ shoes, at 4s.	— 8 —
	2 14 6
	8 14 9

Note.—Great part of the labouring population in Orkney manufacture their own clothing, that is to say, under-clothing, and often also their outer-clothing for week-day wear, purchasing the wool, and they merely go to the shop for Sunday dresses.

(IX.)—Shop Prices of Articles of Clothing, &c.—Contd.

No. 2.

Shop Prices paid by Agricultural Labourers for Articles of Clothing, in the parish of Dunkeld, Perthshire, in the Half Year ended Christmas, 1860, or thereabouts.

Articles of Clothing.	Price.
<i>Husband's clothes—</i>	<i>£ s. d.</i>
Tweed suit	2 10 -
Corduroy trousers	- 8 -
Moleskin vest	- 9 6
Drawers	- 4 6
Bonnet or cap	- 3 6
Two pairs stockings	- 4 4
" pocket handkerchiefs	- 10
" striped shirts	- 5 -
Neckerchief for Sunday	- 2 6
Wearing	- 1 -
	4 9 2
<i>Wife's clothes—</i>	
Winter dress	- 16 -
Flannel petticoat	- 5 -
Duffil	- 7 -
Cotton	- 3 -
Two cotton shifts	- 2 -
" pair of stockings	- 2 6
Bonnet and ribbons	- 7 6
Shawl	- 10 -
Aprons, 2s. 6d.; caps, 1s. 6d.	- 4 -
Stays	- 3 6
	3 - 6
<i>Two Boys' clothes—</i>	
Two suits at 15s.	1 10 -
Worsted for stockings	- 2 6
Four cotton shirts	- 4 -
Two neckerchiefs at 8d.	- 1 4
" pocket handkerchiefs	- 2
	1 18 -
<i>Three Girls' clothes—</i>	
Three dresses	1 - -
Worsted for stockings	- 3 -
Three bonnets or hats	- 7 6
" petticoats	- 6 -
" cotton shifts	- 2 6
Aprons or pinasores	- 3 -
	2 2 -
	11 9 8

Note.—I have given what a family in the above station is in the habit of getting in this quarter annually. Here they are in the habit of supplying themselves with all they want for the year about Martinmas. It just costs them from 11*l.* to 12*l.* annually for clothes for a family such as here stated.

(IX.)—Shop Prices of Articles of Clothing, &c.—Contd.

No. 3.

Shop Prices paid by Agricultural Labourers for Articles of Clothing in the parish of Biggar, Lanarkshire, for the Half Year ended Christmas, 1860, or thereabouts.

Articles of Clothing.	Price.
<i>Husband's clothes—</i>	<i>£ s. d.</i>
Tweed suit	2 6 -
Mole trousers, 8s.; sleeved vest, 10s. 6d.	- 18 6
Plaizing drawers	- 3 6
Cloth cap	- 2 6
Five cuts yarn, at 8d.	- 3 4
Two pocket handkerchiefs	- - 10
" striped shirts	- 5 -
Cravat for Sunday	- 2 -
Wearing ditto	- 1 -
	4 2 8
<i>Wife's clothes—</i>	
Wincey dress	- 12 6
Print	- 3 6
Flannel petticoat	- 4 -
Drugget	- 5 6
Five yards cotton for shift	- 1 8
" cuts yarn	- 3 4
Pair fine hose	- 1 3
Bonnet and ribbons	- 7 -
Wool plaid, 17s.; stays, 3s. 6d.	1 - 6
Aprons, 1s. 6d.; caps, 1s. 6d.	- 3 -
	3 2 3
<i>Three Girls' clothes—</i>	
Three dresses, at 5s. 3d.	- 15 9
Yarn for stockings	- 2 8
Three hats	- 7 -
" petticoats	- 6 -
Six yards cotton, at 3 <i>1</i> / ₂ d.	- 1 9
Aprons or pinasores	- 3 -
	1 16 2
<i>Two Boys' clothes—</i>	
Two suits of cord or moleskin, at 15s.	1 10 -
Yarn for stockings	- 2 8
Cotton for shirts	- 3 4
Two neckerchiefs at 6d.	- 1 -
" Balmoral bonnets at 1s.	- 2 -
	1 19 -
	11 - 1

Note.—The statement above is for that which might be got during a year by a family such as is here mentioned; but, it will not do to suppose that the yearly expenditure would average that amount, as a tweed suit generally serves longer than twelve months, and a woman's wool plaid for two or three years.

(X.)—Statement of the Average Rentals and of the Number of Families occupying thereat in certain Parishes of the Western Highlands and Islands of Scotland in 1851.

Counties.	Parishes.	Rentals.	Number of Families at the Average Rentals stated.
Orkney	Mainland	£ s. d. 3 17 -	{ 2,293 families. Depend more on fishing than their crofts
Ross and Cromarty }	Lewis*	2 12 2	{ 2,628 families of crofters. The croft does not provide for the average family more than six months' food
Inverness.....	Harries	4 2 5½	318 families. Ditto
"	Skye	4 4 1	{ 1,900 families. Does not provide six months' food for an average family
"	North Uist	4 14 6½	{ 217 families. Food for not more than seven months
"	South Uist and Barea	4 2 11	973 families
Argyleshire	Kilfinichen	4 16 7	{ 160 families. Provides food for six months
"	Tyree	4 - -	700 families

* There is about 10,000 acres of arable land in Lewis; average extent of land in tillage upon each croft is about three acres, and hill grazing for one cow and five sheep for every pound of rent.—Sir John McNeill, p. 19.

(XI.)—Statement of Rents Paid by the smaller Crofters and Cottars Paying less than £5 Yearly, in the Western Highlands and Islands of Scotland in 1851.

Parishes.	Number of Tenants.	Aggregate Rental.	Average Rent.
Kilfinichen and Kilvickeon	106	£ s. d. 377 6 5	
Kilmair	136	505 13 11	
Snizort	181	521 9 -	
Portree	201	631 14 -	
Strath	209	515 2 5	
Sleat	181	554 9 8	
Glenelg	93	279 12 -	
Lochlealsh	221	501 17 3	
Kintail	115	304 6 11	
Applecross	197	557 7 2	
Lochbroom	390	1,096 - 10	
Stornoway	642	1,996 - -	
Uig Island of Lewis	337	1,104 9 6	
North Uist	149	559 16 1	
Tyree	223	581 13 2	
	3,384	10,086 18 4	—

Note. Appendix to Sir John McNeill's "Report on the Destitution in the Western Highlands and Islands," 1851.

(XII.)—Statement of the Population Aged 20 Years and upwards, occupied in Agriculture, in each Division of SCOTLAND in 1851; and of the Ratio per Cent. of the Agricultural to the Total Adult Population.

SCOTLAND. Divisions and Subdivisions.	1 Population in 1851.	2 Number of Persons Aged 20 and upwards.	3 Number at those Ages occupied in Agriculture.	4 Ratio per Cent. of Cols. 3 to 2.
I. NORTHERN GROUP—				
1. Northern	127,035	70,632	21,089	29·9
2. North-Western	179,207	99,632	38,550	38·7
3. North-Eastern	349,716	189,424	59,915	31·6
Total	655,958	359,688	119,554	33·2
II. MIDLAND GROUP—				
4. East Midland.....	515,345	279,507	42,488	15·2
5. West Midland	237,246	124,885	26,799	21·4
Total	752,591	404,392	69,287	17·1
III. SOUTHERN GROUP—				
6. South-Western	881,118	468,370	37,450	8·0
7. South-Eastern	382,800	213,337	26,757	12·5
8. Southern.....	216,275	114,265	31,858	27·9
Total	1,480,193	795,972	96,065	12·1
Total of Scotland	2,888,742	1,560,052	284,906	18·2

Note.—The three divisions have reference to the text of the preceding paper; the subdivisions so designated here, are the divisions of the census of 1861. The adult persons employed in agriculture, are tabulated from the occupations, census of 1851, and the ratios computed on the results. See remarks upon the agricultural group of industries, in the Paper on "English Agricultural Wages," printed in the Journal for September, 1861.

IRELAND.

(XIII.)—Statement of the WEEKLY MONEY WAGES of Agricultural Labourers in each Province of Ireland, and of the Weekly Earnings by Task Work of the Men, during the Half Year ended 31st December, 1860.

Number of Counties making Returns.	IRELAND.	Weekly Wages.			
		Men.		Women.	
		Range.	Average.	Range.	Average.
9	I. Ulster.....	s. d.	s. d.	s. d.	s. d.
		6 - @ 8 4	7 3½	3 4 @ 5 -	4 -
		6 - , 10 2	7 - ½	3 2 , , 5 -	3 11
		5 7 , , 8 9½	6 11½	3 - , , 4 11	3 9
		6 5½ , , 8 4	7 2½	3 6 , , 5 -	4 2½
		5 7 , , 10 2	7 1½	3 - , , 5 -	3 11
31	Ireland				

Number of Counties making Returns.	IRELAND.	Weekly Wages.		Weekly Earnings at Task Work.	
		Children under 16 Years.		Men.	
		Range.	Average.	Range.	Average.
9	I. Ulster.....	s. d.	s. d.	s. d.	s. d.
		2 5 @ 4 6	3 2	8 4½ @ 10 -	9 3½
		2 6½ , , 4 6	3 1	8 - , , 10 6	8 10½
		1 7 , , 3 9	2 9	8 - , , 11 -	9 8½
		2 6 , , 3 6	2 11½	7 8 , , 10 -	9 2
		1 7 , , 4 6	2 11½	7 8 , , 11 -	9 4½
31	Ireland				

* Though the wages are returned for the six counties of Munster, the averages given in this table only relate to five of the counties; because the wages, as stated, for Waterford county are the money payments to labourers, *in addition to the food given them*. This practice of paying partly in money and partly in food, does not, according to the return, seem to obtain in the other parts of Ireland. See Table XIV.

Note.—Data abstracted for this table from House of Commons Paper, No. 2, Agricultural Labourers (Ireland). Sess. 1862.

(XIV.)—Statement of the WEEKLY MONEY WAGES of Agricultural Labourers in each County of Ireland; of the Weekly Earnings by Task Work of Men; and of the Harvest Weekly Wages of Men, Women, and Children, during the Half Year ended 31st December, 1860.

IRELAND.	Weekly Wages.			Weekly Earnings by Task Work.	Harvest Weekly Wages.		
	Men.	Women.	Children under 16.		Men.	Women.	Children under 16.
I. ULSTER—							
1. Donegal	6 10	3 5	3 -	8 4½	12 6	6 -	-
2. Londonderry	7 6	5 -	4 6	9 6	15 -*	10 -*	7 -*
3. Antrim	8 4	4 6	3 4	10 -	12 7½	8 9	5 9
4. Tyrone	7 5	4 1	3 3½	9 6	12 -	-	-
5. Fermanagh	6 -	4 -	2 6	10 -	13 6	-	-
6. Monaghan	7 -	3 6	2 6	none	†	†	†
7. Armagh	7 5	4 3½	3 9	8 8	-	-	-
8. Down	8 -	4 -	3 -	10 -	12 -	9 -	4 -
9. Cavan	7 1	3 4	2 5	8 6	14 6	8 -	7 -
II. CONNAUGHT—							
10. Leitrim	6 4	3 2	2 7	8 8	-	-	-
11. Sligo	6 2½	3 10	2 9	8 -	13 6*	-	-
12. Mayo	6 -	4 -	3 -	none	8 6	5 6	3 9
13. Roscommon	10 2½	5 -	4 6	10 6	-	-	-
14. Galway	6 5	3 6	2 6½	8 3½	9 -	4 -	3 -
III. LEINSTER—							
15. Longford	6 -	4 -	3 2	8 -	8 6*	5 8*	4 1*
16. Westmeath	7 -	4 -	3 -	11 -	12 -	9 -	4 6
17. Meath	7 9	4 -	3 6	10 6	14 6	7 11	4 -
18. Louth	6 -	4 -	3 -	8 6	13 -	9 -	3 6
19. King's County	7 8	3 3	2 2	8 -	9 -	6 -	3 6
20. Kildare	8 -	4 -	3 -	11 -	16 6	8 -	3 3
21. Dublin	8 9½	4 11	3 9	10 8	16 6	-	-
22. Queen's County	6 -	3 -	2 -	9 -	13 6	6 6	3 -
23. Carlow	7 -	3 3	2 -	10 6	18 -	13 6	-
24. Wicklow	7 6	4 -	3 4	10 6	15 -	6 -	-
25. Kilkenny	5 7	3 -	1 7	none	12 -	-	-
26. Wexford	6 3	3 6	2 6	9 -	12 -	-	-
IV. MUNSTER—							
27. Clare	7 -	4 6	3 -	none	10 -*	-	-
28. Limerick	7 -	5 -	3 6	10 -	12 -*	-	-
29. Tipperary	6 5½	3 6	2 6	7 8	12 -	5 6	3 6
30. Kerry	8 4	4 -	2 6	none	12 -*	6 -*	-
31. Cork	7 4	4 2	3 4	9 9	11 3	8 3	4 3
32. Waterford	4 6*	2 9*	-	5 6	12 -*	6 -*	-

* With diet.

† Double for one month in spring and one month in harvest.

‡ In explanation of this high rate of wages, see House of Commons Paper.

Note.—Food furnished to male and female labourers, is full diet of potatoes or Indian meal, stirabout or milk; no other drink.

Food at harvest, where given in addition to the money wages, usually consists of two or three meals, with, in some cases, a pint of beer daily.

House of Commons Paper, No. 2, Agricultural Labourers (Ireland). Sess. 1862.

(XV.)—Statement of the Average WEEKLY MONEY WAGES of AGRICULTURAL LABOURERS in Ireland in 1843-4, and in 1860.

IRELAND.	Weekly Wages of Men.		Increase in 1860.	Remarks.
	1843-4.	1860.		
I. ULSTER—				
1. Donegal	4 9 $\frac{1}{4}$	6 10	2 1 $\frac{1}{2}$	
2. Londonderry	5 3	7 6	2 3	
3. Antrim	5 8	8 4	2 8	
4. Tyrone	5 -	7 5	2 5	
5. Fermanagh	4 11	6 -	1 1	
6. Monaghan	4 6	7 -	2 6	
7. Armagh	5 6	7 5	1 11	
8. Down	5 10 $\frac{1}{2}$	8 -	2 1 $\frac{1}{2}$	
9. Cavan	4 2	7 1	2 11	
Average	5 1	7 3 $\frac{1}{2}$	2 2 $\frac{1}{2}$	
II. CONNAUGHT—				
10. Leitrim	3 10	6 4	2 6	
11. Sligo	3 10	6 2 $\frac{1}{2}$	2 4 $\frac{1}{2}$	
12. Mayo	3 8 $\frac{1}{2}$	6 -	2 3 $\frac{1}{2}$	
13. Roscommon*	3 8 $\frac{1}{2}$	10 2	6 5	
14. Galway	3 9	6 5	2 8	
Average	3 9	7 -4	3 3 $\frac{1}{2}$	
III. LEINSTER—				
15. Longford	3 6	6 -	2 6	
16. Westmeath	4 1 $\frac{1}{2}$	7 -	2 10 $\frac{1}{2}$	
17. Meath	4 10	7 9	2 11	
18. Louth	4 10	6 -	1 2	
19. King's County	4 2	7 8	3 .6	
20. Kildare	5 1	8 -	2 11	
21. Dublin	6 9	8 9 $\frac{1}{2}$	2 1 $\frac{1}{2}$	
22. Queen's County	4 6	6 -	1 6	
23. Carlow	5 -	7 -	2 -	
24. Wicklow	4 7	7 6	2 11	
25. Kilkenny	4 5	5 7	1 2	
26. Wexford	4 6	6 3	1 9	
Average	4 8 $\frac{1}{2}$	6 11 $\frac{1}{2}$	2 3	
IV. MUNSTER—				
27. Clare	3 10 $\frac{1}{2}$	7 -	3 1 $\frac{1}{2}$	
28. Limerick	4 -	7 -	3 -	
29. Tipperary	4 1 $\frac{1}{2}$	6 5 $\frac{1}{2}$	2 4	
30. Kerry	4 -	8 4	4 4	
31. Cork	4 -	7 4	3 4	
32. Waterford	4 2 $\frac{1}{2}$	6 6 $\frac{1}{2}$	2 4	
Average	4 -	7 1	2 11	
Average of Ireland ...	4 6	7 1	2 7	

Note.—The average wages for 1843 are deduced from the statements of 373 witnesses examined before the Commissioners appointed to inquire into the occupations of land, Ireland, 1844.

(XVI.)—Comparative Statement of the Average WEEKLY WAGES of AGRICULTURAL LABOURERS, and of Six descriptions of ARTIZANS, throughout Ireland.

Poor Law Inspectors, and their Districts.	Average Weekly Wages, 1854-5.						
	Agricul- tural Labourer.	Tailor.	Shoe- maker.	Weaver.	Carpenter.	Baker.	Bricklayer and Mason.
Mr. Burke's— Carlow, King's, Kildare, Kilkenny, Queen's, Tipperary, Wexford, and Wicklow	6 -	10 6	10 6	11 -	16 6	—	16 6
Mr. Lynch's— Cork, Kilkenny, Queen's, and Tipperary	6 -	12 -	12 -	10 -	16 -	15 -	17 6
Mr. R. Hamilton's— County of Cork	5 -	10 -	10 -	—	18 -	18 -	18 -
Mr. W. Hamilton's— Tipperary, Waterford, Kilkenny, and Wexford	6 3	15 -	15 -	9 6	18 -	19 -	19 -
Mr. Horsley's— Cork, Kerry, and Limerick	6 -	12 -	12 -	5 -	21 -	—	21 -
Mr. R. Bourke— Leitrim, Mayo, Roscom- mon, Sligo, and Done- gal	6 6	13 6	15 -	7 6	18 -	—	18 -
Mr. Crawford's— Tipperary, Carlow, Dub- lin, Kildare, Kilkenny, Queen's, Wexford, and Wicklow	6 -	14 3	14 -	17 -	19 9	16 6	18 3
Mr. Hall's— County of Cork	6 -	10 6	12 -	9 -	17 -	15 -	18 -
Mr. Robinson's— Antrim, Armagh, Cavan, Down, Londonderry, Monaghan, and Tyrone	7 6	12 6	11 6	7 6	16 6	—	16 6
Mr. O'way's— Dublin, Kildare, King's, Longford, Louth, Meath, and Westmeath	6 -	12 -	12 -	7 -	18 -	16 -	18 -
Mr. Lucas's— Clare, Limerick, and Tip- perary	6 -	15 -	15 -	15 -	18 -	15 -	19 6
Mr. O'Brien's— Galway, Roscommon, King's, Westmeath, and Tipperary	9 -	15 -	15 -	6 -	18 -	15 -	18 -

Note.—Abstracted from the "Seventh and Eighth Annual Reports of the Irish Poor Law Office."

(XVII.)—Statement of the WEEKLY Cost of the DIET consumed by the Poorer Classes in Ireland in 1859.

IRELAND. Provinces and Counties.	Number of Families.	Average Number of Persons in each Family.	Weekly Expenditure for Food.	Rate of Expenditure for each Person.	Remarks.
I. ULMSTER—	No.	No.	s. d.	d.	
1. Donegal	10	7·0	6 1 $\frac{1}{2}$	10·5	
2. Londonderry	10	7·6	7 11 $\frac{1}{2}$	12·6	
3. Antrim	8	5·2	5 6	12·7	
4. Tyrone	10	6·3	7 2	13·7	
5. Fermanagh	10	5·5	5 9 $\frac{1}{2}$	12·6	
6. Monaghan	12	5·5	3 5	7·5	
7. Armagh	16	6·5	5 4	9·8	
8. Down	2	7·0	5 6	9·0	
	Total	78	6·3	5 9 $\frac{1}{2}$	11·0
II. CONNAUGHT—					
12. Mayo	7	6·0	7 2 $\frac{1}{2}$	14·4	
13. Roscommon	1	6·0	9 6	19·0	
14. Galway	4	7·0	9 4 $\frac{1}{2}$	16·0	
	Total	12	6·3	8 1 $\frac{1}{2}$	15·5
III. LEINSTER—					
15. Longford	3	6·7	11 11	21·3	
16. Westmeath	14	6·4	7 11 $\frac{1}{2}$	14·9	
17. Meath	3	5·0	8 2	19·6	
18. Louth	3	5·0	8 2	19·6	
19. King's County	2	5·5	7 1 $\frac{1}{2}$	15·4	
20. Kildare*	6	5·7	4 11 $\frac{1}{2}$	10·4	
25. Kilkenny	5	7·0	6 8	11·4	
26. Wexford	2	5·5	7 4	16·0	
	Total	35	6·0	7 6 $\frac{1}{2}$	15·0
IV. MUNSTER—					
27. Clare	8	5·7	6 1 $\frac{1}{2}$	12·7	
28. Limerick	6	6·3	9 3	17·6	
29. Tipperary	4	6·0	9 3 $\frac{1}{2}$	18·5	
30. Kerry	14	6·9	9 7 $\frac{1}{2}$	16·8	
31. Cork	2	5·0	7 10	18·8	
32. Waterford†	9	6·0	7 5	14·8	
	Total	43	6·2	8 4	16·1
Grand Total of 25 counties	168	6·4	6 11 $\frac{1}{2}$	13·0	

Note.—The data upon which this table is based, have been abstracted from the reports of the Irish Poor Law Inspectors on the Dietary of the Labouring Poor, published in the "Thirteenth Annual Report of the Irish Poor Law Commissioners," pp. 31—87.

(XVIII.)—Statement for One Year of the Cost of Clothing of an Agricultural LABOURER'S FAMILY, in or about 1860.

No. 1.		
Statement in respect of a District in the County of Galway.		
Articles of Clothing.	Price.	Remarks.
<i>Husband—</i>		
One coat	— 12 6	
" vest	— 3 —	{ Sale of pig
" pair of trousers	— 7 —	
Two shirts	— 2 6	
One pair of shoes	— 8 —	{ Savings of wages
" cap, &c.	— 2 6	
	1 15 6	
<i>Wife—</i>		
Two petticoats	— 5 6	
" shifts	— 3 6	
One gown	— 3 6	{ Savings of husband's wages, and about 10s. earned by wife in knitting stockings
" kerchief	— 2 —	
Two aprons	— 1 3	
	— 15 9	
<i>Four Children, 1 to 12 years of age—</i>		
16 yards of calico	— 5 4	
16 " flannel	1 — —	{ From wages
	1 5 4	
Total	3 16 7	

Note.—One of the poorest districts in all Ireland.

(XVIII.)—Statement for One Year of the Cost of Clothing, &c.—Contd.

No. 2.

A Statement showing the Cost of Clothing a PEASANT LABOURER, his WIFE, and CHILDREN, for Twelve Months, in the County of Limerick.

<i>The Peasant.</i>	<i>Son of 10 Years of Age.</i>				
£	s.	d.	£	s.	d.
Two shirts, including making	- 5 -		Two shirts	- 2 -	6
Flannel drawers and waistcoat	- 7 -		Small clothes	- 2 -	6
Cord breeches, including tailor	- 5 -		Two pairs of socks	- 1 -	
Waistcoat	- 3 -		Pair of shoes	- 4 -	6
Two pairs of stockings	- 2 -		Cord jacket and vest, 3s. 6d., } lining and tailor, 1s. 6d. }	- 5 -	
Pair of strong shoes	- 10 -		Cap	- 1 -	
Frieze coat, including trim- } mings and tailor.....}	- 16 -				
Hat.....	- 3 -				
			Total	- 16 -	6
Total.....	2 11 -				

His Wife.

Daughter of 12 Years of Age.

Two chemises.....	-	2	6	The peasant, cottager, or }	2	11	-
,, petticoats	-	6	-	husbandman			
,, pairs stockings	-	1	-	His wife	2	5	-
Pair of shoes	-	5	-	Girl of 12 years.....	1	6	-
Frock	-	3	-	Boy of 10	-	16	6
Neckerchief, 2s., two aprons, }	-	8	6	,, 7	-	12	-
1s. 6d., cloak, 5s.	—			Two children, 2 to 4	-	10	-
Total	1	6	-	Total for peasant's family	8	-	6

Summary.

The peasant, cottager, or husbandman	2	11	-
His wife	2	5	-
Girl of 12 years	1	6	-
Boy of 10 , ,	-	16	6
" 7 , ,	-	12	-
Two children, 2 to 4	-	10	-
 Total for peasant's family	8	-	6

1862.]

in Scotland and Ireland.

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(XVIII.)—Statement for One Year of the Cost of Clothing, &c.—Contd.]

No. 3.

Ballina (a Poor Western Union), County Mayo, Province of Connaught.

The Clerk of Ballina writes:—

1. The average weekly wages of a *farm labourer* of this district (except say one month in spring and one month in autumn, when the wages reaches 1s. 6d. per day) is 6s.

2. The cost of his clothing for one year is as follows:—

	£ s. d.
Coat, 4 yards home-made frieze, at 3s. per yard	- 12 -
Vest, 1 " " "	- 3 -
Trousers, 3½ yards corduroy at 1s. per yard	- 3 6
Cost of making and trimmings	- 10 -
One pair of brogues	- 5 -
Hat	- 2 6
 Total	 1 16 9

3. Clothing for wife for one year:—

	£	s.	d.
One gown, 7 yards coburg, at 8d. per yard	-	4	8
Two petticoats, 4 yards flannel, at 1s., and			
4 yards coburg, at 8d. per yard	-	6	8
One chemise, 3 yards calico, at 4d. per yard ...	-	1	-
,, handkerchief	-	1	-
,, apron	-	-	6
,, linen cap	-	-	6
Cost of making and trimming	-	3	-
One pair of shoes	-	4	-
 Total	1	1	4

4. Cost of clothing for five children, at and under 12 years of age, supposing two to be boys and three to be girls:—

	£ s. d.
The cost of two suits of clothes for the boys, at 4s. 6d. per suit	} - 9 -
The cost of three suits for the girls, at 11s. per suit.....	} 1 13 -
Total	2 2 -

The total expense of clothing for the entire family, consisting of husband, wife, and five children for one year, would therefore be } 4 19 4

5. The labourer depends for providing such clothing upon the sale of one or more pigs, and the increased rate of wages in the spring and autumn of the year. The wife, too, if a strong healthy woman, could also get employment at those seasons of the year.

(XIX.)—A Statement showing the Cost of Materials for Articles of Clothing supplied to WORKHOUSE INMATES in the KILMALLOCK UNION, County Tipperary and Limerick, in the Year 1860 (all the Articles Made in the Workhouse, except Shoes, by Pauper Labour).

No. 1.			
Man.	£ s. d.	Boy under 15 Years.	
Shirt, calico	1 4½	Shirt, calico	9½
Socks, woollen	— 9	Socks, woollen	— 9
Trousers, frieze	5 6	Trousers, frieze*	4 6
Vest,	2 6	Vest,	1 9
Jacket,	8 6	Jacket,	6 —
Cap,	— 6	Cap,	— 6
Shoes, leather	6 10½	Shoes, leather	4 8½
	1 6 —		— 19 —
Woman.		Girl under 15 Years.	
Chemise, calico	1 4½	Chemise, calico	9½
Stockings, woollen	1 —	Stockings, woollen	1 —
Petticoat, flannel	3 10	Petticoat, flannel	1 11
„ linsey	4 2	„ linsey	2 1
Wrapper, Bengal stripe	2 3	Wrapper, Bengal stripe	1 2
„ twilled calico	1 3½	Frock, Chambray	2 6
Cap, calico	— 2	Bib, check	— 6
Neckerchief, woollen	1 9	Shoes, leather	4 2½
Apron, check	— 6		— 14 2½
Shoes, leather	4 9½		
	1 1 1½		

* Corduroy is not used in this workhouse.

(XIX.)—Statement of Cost of Clothing, &c.—Contd.

No. 2.

Statement of Cost of Clothing in CLIFDEN UNION WORKHOUSE (one of the Poorest Districts).

Adult Male Pauper.

	£ s. d.	Boy 12 Years of Age.	£ s. d.
One coat	— 6 6	One coat	— 3 —
„ vest	— 2 —	„ vest	— 1 —
„ pair of trousers	— 5 —	„ pair of trousers	— 2 —
Two shirts	— 2 —	Two shirts	— 1 6
One cap	— 1 2	One cap	— 1 —
„ pair of clogs	— 3 6		— 8 6
	1 — 2		
Adult Female Pauper.		Girl 12 Years of Age.	
One wrapper	— 1 4	Two frocks	— 4 —
Two petticoats	— 6 —	„ petticoats	— 4 —
„ shifts	— 1 10	„ shifts	— 1 4
„ kerchiefs	— 2 —	„ bibs	— 1 —
„ caps	— 3 —		— 10 4
„ aprons	— 1 —		
	12 5		
Total	2 11 5		

(XIX.)—Statement of Cost of Clothing, &c.—Contd.

No. 3.

Statement of the Cost of Clothing in ATHLONE UNION, of an Adult MALE and FEMALE PAUPER, also of a BOY and GIRL 12 Years of Age.

Adult Male.

	£ s. d.	Boy.	£ s. d.
Frieze coat	— 8 3	Frieze coat	— 6 2
„ vest	— 2 1	Lining	— 8
Lining for coat and vest, with } thread, buttons, &c. }	— 1 1	Trousers	— 3 1
Trousers	— 4 5	Cap	— 10
Cap, 1s., shoes, 6s. 6d., } socks, 6d. }	— 8 —	Shoes	— 5 6
Shirt	— 1 —	Socks	— 6
	1 4 10	Shirt	— 9
			— 17 6

Woman.

Shift	— 1 3	Shift	— 11 ½
Under petticoat	— 3 —	Petticoat	— 2 9
Over	— 4 —	Frock	— 2 9
Wrapper	— 2 —	Bib	— 10 ½
Apron	— 7 —	Thread, tape, hooks, and } buttons }	— 3 ½
Handkerchief, 5d., cap, 1d.	— 6 —		
	— 11 4		— 7 7

(XX.)—Statement of the YEARLY RENTS Paid by the Irish Peasantry in 1843-4, for Cabins and Cottages. The Lower Rents indicate either that there was a very Small Piece of Ground included, or none at all; the Higher Rents secured greater benefits in the way of Land.

	s.						
I. ULSTER—							
1. Donegal	20	30	35	40	60	90	120
2. Londonderry	20	30	—	40	50	80	—
3. Antrim	21	25	30	35	40	50	60
4. Tyrone	20	30	—	40	50	60	—
5. Fermanagh	—	—	—	40	50	60	—
6. Monaghan	—	25	30	40	50	60	—
7. Armagh	20	30	—	40	—	60	80
8. Down	25	30	—	40	52	60	—
9. Cavan	20	25	30	40	—	—	—
II. CONNAUGHT—							
10. Leitrim	—	30	—	40	—	—	—
11. Sligo	15	20	—	40	50	60	—
12. Mayo	—	—	—	40	—	—	—
13. Roscommon	25	30	—	40	—	—	—
14. Galway	20	25	30	40	—	—	—
III. LEINSTER—							
15. Longford	—	—	—	40	50	60	80
16. Westmeath	—	30	—	40	50	60	—
17. Meath	20	—	—	40	52	60	—
18. Louth	21	30	—	40	50	—	—
19. King's County	—	—	—	40	52	—	80
20. Kildare	—	26	—	40	50	60	—
21. Dublin	20	—	—	40	—	—	—
22. Queen's County	20	—	—	—	—	—	—
23. Carlow	—	30	—	—	—	60	80
24. Wicklow	20	—	—	40	52	—	—
25. Kilkenny	—	30	—	40	—	—	—
26. Wexford	15	30	—	40	—	—	—
IV. MUNSTER—							
27. Clare	—	—	—	40	—	—	—
28. Limerick	20	30	—	40	50	—	70
29. Tipperary	20	30	—	40	50	60	—
30. Kerry	20	—	—	40	—	—	—
31. Cork	20	30	—	40	—	—	—
32. Waterford	—	30	—	40	—	60	80

Note.—Abstracted from the evidence given before Lord Devon's Commission on the occupation of land, Ireland.

On the UTILITY of COLONIES as FIELDS for EMIGRATION.

By HERMAN MERIVALE, ESQ.

[Read before Section (F) at Cambridge, 6th October, 1862.]

THE utility of colonization to a community circumstanced like that of England, is pretty generally admitted. It is usually considered to be the result of two main causes,—first, and most important, the superior productiveness of capital and labour when applied to a new soil; secondly, the relief which emigration affords to the pressure of population on subsistence. It is, of course, perfectly true in the abstract that, under a system of free trade, a country would gain as much by directing her capital and her emigrants to a new soil under foreign dominion as under her own. But as, in the present state of the world, England is the only colonizing country of Europe, this truth becomes of little practical importance.

The benefit of colonization may therefore stand for my purpose as admitted. But how far the retaining a colony under the dominion of the mother country contributes—first, to the facility of investing capital there; secondly, to the facility of locating emigrants there; is quite another question.

Put in a scientific shape, the question of the “economical advantage of colonies” might stand as follows:—How far is the profitable application of the accumulated knowledge, capital, and labour of an old country to the production of wealth in a new country aided by the circumstance that both are under the same Government?—a question not so easily answered as is sometimes supposed, but of which the solution belongs to the politician, not the economist. Obviously, under a system of free trade, it would be immaterial how soon a colony shook off the dominion of the mother country (or rather the mother country would gain through a reduction of expenditure), if the emancipated colony remained equally prosperous and equally friendly. But if it did not; if its advance was checked by internal insecurity, if it became actuated by feelings of hostility, if it fell under the dominion of, or into connection with, foreign states; if it adopted hostile tariffs, or opposed the admission of our emigrants; then we should find that the loss of the colony was the loss of an economical advantage. And then we might, perchance, discover that “ships, colonies, and commerce,” are a little more nearly connected than it is now the fashion in some quarters to suppose them.

The greater branch of this subject, that, namely, which relates to the increase of wealth in new countries, and how far this may depend on political connection, I intend to leave for the present; and to confine myself to the minor, but still very important inquiry, how far the advantage which we derive from emigration as an outlet for our people, might be affected by any political change involving the loss of colonial empire.

I. The beneficial effect of regular, sustained, and copious emigration on the social condition of the country whence the emigrants proceed, is scarcely, in my belief, appreciated as it should be by political thinkers. It is our habit rather to look on emigration as beneficial to the emigrants only, or to the mother country but indirectly, through increase of trade. But, although this may be the more important side of the question, as it certainly is the most attractive, the other also merits very earnest attention. It is necessary that we should estimate at its right value the good we have hitherto enjoyed from unlimited facility of emigration, and the danger we now run of having that advantage very seriously curtailed. It is necessary to fix our eyes at the outset on the old Malthusian doctrine, which has been a little out of sight of late years, owing to the prosperity which has recently prevailed, but which is as true now as it ever was, and is receiving some very remarkable confirmations, and expanding into some unsuspected corollaries. Population in any country has a tendency to increase more rapidly than the means of subsistence can increase. Population doubles in twenty or twenty-five years. Subsistence (unless under very extraordinary circumstances), will not increase in anything like this ratio. The disproportion must be kept down, either by increase of deaths, or by a diminution in the amount of subsistence enjoyed by each individual (that is, a falling off in the general well-being), or by diminution of births through the "prudential" check,—that is, generally speaking, by fewer and later marriages; or, lastly, by emigration. Of course, any number of these causes may be found in combination.

Now ever since the commencement of the potato disease in 1845, if not a little earlier, there has been a very marked diminution in the rate at which population has advanced in Western Europe. In France the rate of increase was estimated at 0.646 per annum from 1801 to 1836; at 0.445 from 1836 to 1856, and is now less. In Western Germany there has been an extremely slow increase in most parts, an actual diminution in others*. In our own country, taking the United Kingdom together, the population, since the census of 1841, has increased no faster than that of France. That of Ireland has greatly diminished. That of Scotland has scarcely increased at

* In Hesse, Electoral and Grand Ducal, from 1,610,000 in 1852, to 1,571,000 in 1858.

all. The whole increase is in England and Wales, and generally speaking in the towns and manufacturing districts.

To take the case of England and Wales alone, these had 18,000,000 of inhabitants in 1851; 20,000,000 in 1861; but it must be remembered that England draws constantly-increasing supplies of people from other parts; the whole 2,000,000 therefore, cannot be set down as natural increase. Probably the entire natural increase in the decennium has been under 10 per cent.; that of France something under 4 per cent. And yet during the same decennium, England and Wales has sent out emigrants in great numbers; France none at all—that is, the accessions to her population from without are supposed to balance her trifling loss by emigration. It is not possible to estimate exactly the number of emigrants from England and Wales, exclusive of the rest of the United Kingdom, but probably throughout the decennium they have averaged above 100,000 a-year. The births in the same period have increased from 600,000 to nearly 700,000 per annum, average 650,000. The marriages in 1851 were 154,000; in 1860, 170,000. That is, they increase at about the same rate as the population. There have been from four to four and a-half births in each year in proportion to every marriage which has taken place in each year; so that the fertility of marriages may be represented by 4.5—a rate which appears to be steady. I omit, for the sake of simplicity, all corrections arising from illegitimate births, which would not materially affect the general result.

Now if we suppose that no emigration had taken place, but that the number of marriages, condition, and increase of the population had remained the same, it is clear that there could only have been something less than four births in the year for every marriage. "The prudential check" on births must needs have operated to this extent, probably through later marriages. In other words, every sixth child, or nearly so, has been provided for by emigration. Now let us see what amount of verifications these estimates and conjectures derive from the known facts regarding the progress of population in France during the same period.

In France, as has been said, the increase in the decennium has been barely 4 per cent., and there has been no emigration; consequently there must have been either,—1. Diminution in the comfort of the population. But the contrary is the fact. The general well-being has a tendency to increase. From 1817 to 1824 the average duration of life was 31.8 years; from 1847 to 1854, 37.4, and is now about 38. (I quote from tables contained in the "Annuaire de l'Economic Politique.") Longer life implies more comfortable life; or, 2. Increased mortality. But the same table (of the average duration of life) disproves this likewise. Mortality has in France a tendency to diminish; or, 3. Diminution in the relative

number of marriages. But the relative number of marriages does not diminish, but remains singularly stationary. (In 1821-30, 1 for 127.71 inhabitants; 1831-40, 1 for 125.82; 1841-50, 1 for 126.01. I have not seen a later return, but there is no reason to suppose any sensible variation). 4. We are, therefore, reduced by the exhaustive process to the last and inevitable conclusion, since all other conceivable causes fail. The only reason for the scarcely perceptible rate of advance in the French population, must be a diminution in the fertility of marriages; and this fact, to which *a priori* reasoning thus forcibly leads us, is fully proved by statistical records. While marriages have, as we have seen, augmented with the population, births have remained for forty years absolutely stationary. In 1817 there were 944,000 births in France; in 1856, 952,000; and in the whole number of years since 1815, they have, I think, never fallen short of 900,000, nor exceeded 1,000,000. The average fecundity of marriages is, therefore, steadily, but slowly, diminishing. From 1822 to 1831, it was represented by 3.64; 1832 to 1841, 3.41; 1842 to 1851, 3.19; in 1855 it had fallen to 2.96; in 1856, risen to 3.11. "Si cette diminution ne s'arrête pas" (says a writer in the "Annuaire de l'Economie Politique"), "on peut prévoir au moins le moment où la population deviendra complètement stationnaire."

Stated broadly, therefore, the result is this. Both in France and England the well-being of the people increases, or at all events does not diminish. But in order to secure this essential, the French are compelled to contract later marriages and have fewer children than heretofore. The English can enjoy the same result without putting the like constraint on nature, and may marry almost as early as their forefathers did, although they live much longer; and this they owe in great measure, though not wholly, to an established emigration, which has become part of the institutions of the country, and which makes provision for pretty nearly one child in six. I do not wish to exaggerate the advantages of early marriages and numerous children. It may be that the French, on the whole, purchase cheaply the maintenance of the national well-being by the sacrifice of a portion of the reproductive powers of their people. But I think none will hesitate for a moment in esteeming that nation comparatively happy, which can equally maintain the national well-being without such an unnatural and unhealthy sacrifice; and, if so, none can be blind to the enormous advantage of continuous, and therefore reliable, emigration as an outlet.

II. It is necessary now to proceed to the second branch of our inquiry. If emigration can be carried on as copiously and as regularly without colonization as with it, colonization is clearly (as far as the interest of emigration is concerned) a mere loss. Colonization involves considerable expenditure of capital in founding

colonies, some expenditure in governing them. Germany (or at least the western and northern parts of it) has profited very greatly by emigration, and that without any cost to its Government at all. In the last ten years a million of German colonists have gone to the United States alone. I have said that in some parts of the country the population is stationary, probably kept down in great measure by emigration; and there is no reason to doubt that this efflux must have contributed materially to the maintenance of the standard of well-being. The United Kingdom, from 1825 to 1855, sent in round numbers a million and a-half of emigrants to the colonies, two millions and a-half to the United States.* But the placing of the million and a-half cost the British taxpayer considerable sums for the foundation of the Australian colonies, and for the defence of all. The placing of the two millions and a-half cost the British taxpayer nothing.†

This is true, and it is a truth which only two years ago was pretty generally deemed conclusive of the question. It appeared clear that colonies were no gain to us, for the absorption of emigrants, except as regards that overplus only for whom the States had no room. But two years have made an enormous, and it is to be feared, a durable change in our prospects in this respect. The great receptacle of the emigrants of the world, the great refuge of the poor, the great home of the homeless, the great field for the adventurous seems to be closed. Permanently closed it can hardly be. Its natural advantages remain the same as ever; the need of Europe remains the same; and in some way or other, these advantages will, we must hope, be made available for that need. But political foresight fails to see how or when. Distracted, indebted, separated states will ill supply the place of that vast and teeming confederacy which has taken our children to its bosom for more than half a century. And even a restored Union, if such a thing be yet possible, must go through a long stage of recovery from its present calamities, before it can be attractive to the emigrant as heretofore.

Few, I think, have at all realized the nature and magnitude of the evil which is impending over us from the closing, even for a time, of that outlet for our superabundant population. For it is most important to observe that its great value arose not only from its largeness, but from its extensive regularity of action. It was a safety valve always open, and expanding and contracting almost to our wish. Periods of comparative depression here, such as rendered emigration

* These numbers are only approximative, as many emigrants go to Canada only on their way to the States; while on the other hand, at certain times, there is a considerable reflux from the States to Canada; but they may serve for our present purpose.

† In strict accuracy, this is not so, as there is considerable export of capital along with emigration. But as this is equally the case in respect of all emigration, it may be left out of the account.

more desirable, were seldom coincident with periods of comparative depression in the States; and, indeed, the broad West hardly knew depression at all. Emigration has been, as I have said, the regular provision for one child in six born in this part of the United Kingdom; but in Ireland more nearly for one child in three. Those must be far more sanguine than I am, who can look without great apprehension at the results of the threatened abolition of that provision, or at least much more than half of it, being the proportion which the States have hitherto afforded. If the privation were to be permanent, it could, as we have seen, be only met by increased mortality, or increased privation, or (and more probably) by an approximation to the French reduced rate of offspring to a marriage. But men do not change without a struggle their habits for the worse, and much trouble would be gone through before our population accommodated itself to the new and deteriorated state of things. I know not whether the same idea may have occurred to others, but to my mind there is at least a very ominous coincidence of date between the interruption of peaceful emigration from Ireland to America, which I believe has already commenced, and the lowering and discontented humour which has so suddenly come to the surface in a portion of the Irish population.

And it surely follows—to come back to that which is the main purpose of this essay—that continued colonization, and the continuance also of our political relation with such colonies as we possess, are more than ever important to the social well-being of the community. Canada, as long as it remains connected with us, affords a certain and regular place of resort for no inconsiderable portion of our overflow. How long Canada might do so if we were to follow the advice of a modern political school, by leaving her to independence—that is, to forming connection with the States or with neighbouring portions of them—no wise man, with the civil war now raging before his eyes, will venture to anticipate. Emigration to Australia and New Zealand is carried on at a greater disadvantage, owing to distance; still it has carried off on the average one-eighth of our overflow since 1825, and will carry off a great deal more. It is, in truth, as yet in its infancy; but let us withdraw from Australia the protection of the British flag, and it is highly improbable, on all ordinary political calculation, that emigration would continue to anything like the same amount when the sense of security now felt under British institution had ceased to exist. The greater the loss, in short, which the sufferings of the American Republic have inflicted on us and on the world, the greater the importance of keeping our hold on those substitutes which have been left to us, and of which the eventual value is as yet undeveloped.

Note.—See *Miscellanea*, “Emigration, 1815-61,” p. 537.

On the PREVENTION of CRIME. By EDWIN HILL, Esq., of the Inland Revenue Office.

[Abstract of a Paper read in Section (F), at Cambridge, 7th October, 1862.]

MR. E. HILL's paper called attention to the large number of habitual criminals whose sole occupation it is to plunder others,—a predatory class,—harbouring in the very bosom of society, and keeping its ground in undiminished numbers in spite of all the forces brought to bear against it. In illustration of the magnitude of this evil the following particulars were given (in round numbers) from the “Judicial Statistics” for 1858 and 1861, for England and Wales.

The known thieves and receivers of stolen goods are stated to be 44,000; the prostitutes, 29,000; suspected persons, 39,000; vagrants and tramps, 23,000: making a total of 135,000 individuals, believed to be living wholly, or for the most part, by criminal practices. The houses of bad character inhabited or frequented by criminals, 24,000. The cost of repressive measures paid by the rates and taxes, for the year 1861, 2,548,000 $\text{l}.$, in addition to the heavy expenses falling upon individuals, and the loss of time incurred by witnesses, jurors, and others. The loss of property from depredation was estimated by Mr. Redgrave, for the year 1858, at seven millions and three-quarters, making a total loss of upwards of ten millions per annum, attributable mainly to the class of habitual criminals.

To give some idea of the number of crimes due to this class, it was stated that London is believed to harbour some 5,000 habitual depredators; who, if taken upon the average to commit but one crime per day each, would commit upwards of a million and a half of crimes in the year.

The moral evils were also noticed. The dread and anxiety suffered by thousands, especially the aged, the feeble, and the timid;—the crimes of a few desperate men sometimes spreading panic through the whole country.* The contamination of the young, especially

* “Thieving with all its terrors, costliness, and enormity, is a dark streak in the otherwise brightening horizon of modern civilization. It flits in the portentous shadows of prison walls, and there is a voice from the echoes of every policeman's footfall, telling of something bad under the surface of society; and cautioning us to beware of the danger. We never retire to rest without feeling that we may be maimed and terror stricken in our beds; or waking, may find the hard earnings of honest toil purloined beyond possibility of recovery, by a set of worthless vagabonds who are too lazy to earn their own living; and who, with the cowardly rascality that belongs to them, subsist on the stolen property

of the children of the honest working man, who often has no means for escaping the localities infected by crime. And lastly, the pitiable fate of the children, born amidst crime; who, if they have not the good fortune to die early, have no possible escape from the contamination that surrounds them; many being even beaten into crime, and destined to fall ultimately into the grasp of the law to have these criminal teachings then scourged out of them, if it be not too late to be possible. Probably not fewer than five or six infants per day are born in this Christian country, so surrounded by a network of crime as to make escape from this fearful destiny all but impossible.

The writer then observed as follows:—The obstinate vitality of this crying evil impels us to undertake a thorough reconsideration of the conditions of that vitality; with a view to the discovery of some more vulnerable part than has hitherto been assailed; or, better still, of some one vital condition that it may be possible to withdraw altogether.

The command of premises for dwelling, for places of congregation, and for the warehouses, workshops, &c., used by the receivers of stolen goods, the coiners, the illicit distillers, and the thieves' instrument makers, and, lastly, for the training of young thieves, would undoubtedly appear to be one of the essential conditions of the existence of the predatory class. For had such shelter and harbourage been heretofore wholly unattainable, it is not too much to say that the class could never have come into existence. Assuming, then that the command of adequate premises is a vital condition, it remains only to consider whether, practically, the community has power to withdraw such condition. And, having regard to our Anglo-Saxon dislike to meddlesome or intrusive Governmental interference, whether the object of depriving the predatory class of the command of the premises indispensable to their plundering operations can be accomplished without having recourse to enactments of an arbitrary and inquisitorial character.

The use of premises is of course obtained by the payment of rent; and as no honest owner of house property would willingly receive rents which he knew or even suspected to be derived from the plunder of his neighbours, it follows, that the members of the predatory class can obtain tenancy only from landlords who are ignorant of the vocation of their tenants, or from landlords who are not unwilling to accept the proceeds of crime in payment. But for ignorance, or connivance, therefore, the predatory class would cease to be able to obtain harbourage, and must speedily fall into dispersion.

"of others. Will there ever be an end to thieves and robbers? Is there no means of getting rid of this interminable expense, damage, and terror?"—*"Cornhill Magazine," September, 1860.*

As to the conniving landlords, since there is no moral difference between receiving the proceeds of stolen property knowingly, and receiving the stolen property itself, they cannot expect much sympathy; whatever pressure may be put upon them to compel them to act as honest men. Enjoying their property under the shadow of the law, it is intolerable that they should *knowingly* allow their property to harbour those who live by breaking the law.

As regards those landlords whose property is infested by criminals without their knowledge, such could not have happened had the public mind been so far advanced upon the subject as to have recognized it as the plain duty of the owners of house property to refuse tenancy to all persons of doubtful character; *i.e.*, to all who could not show, beyond all reasonable doubt, that their rents would be *paid out of honest gains*, and nowise from the proceeds of crime, directly or indirectly. It could not have happened, even, had the interests of the landlords as a body, in the suppression of the predatory class, been well understood. Since, in the towns at least, the heavy expenses annually incurred in the repression of crime cannot but fall ultimately upon the house property, seeing that although the tenants actually disburse the police and county rates, these outgoings are doubtless considered by the tenant in estimating the rent he can afford; it being immaterial to him whether he pays more to the rate-collector and less to the landlord, or more to the landlord and less to the collector. Hence, a landlord who allows his property to harbour criminals, is a traitor to the interests of the landlord body, and would, no doubt, be so stigmatized, had the subject undergone that long and earnest discussion, which must have ended in the formation of a strong and healthy public opinion regarding it.

Had such public opinion been now existent, nothing further would have been needed than to find the means of restraining the *few* unscrupulous landlords who, for the sake of high rents, from whatever tainted source obtained, would set public opinion at defiance. The matter, however, has to be dealt with under existing conditions. The question therefore is,—In what way can the law most readily deal with house property, so as to induce its owners wholly to shut out the thief, his aiders and abettors?—so that the landlord's rule may be "No honesty no house." The answer is, that the pressure of the rates now levied for the repression of crime, the police and county rates, &c., do constitute an ample force adapted to this purpose, lying ready to our hands, and requiring only to be rightly wielded. It is but to "put the saddle on the right horse." It is, in truth, simply a question between the great majority of house-owners who do *not* suffer their property to harbour the plunderers of their neighbours, and the small minority who *do*.

Now the law, judging between these parties, might justly say to

the offending minority, "But for the shelter you afford the predatory class, it must be wholly dispersed, and the heavy burden of its repression thenceforth cease. Therefore either do as your fellow-landlords do, and so sweep away the burden altogether, or prepare to take it wholly on your own shoulders;—justice will not allow that loss to fall upon the whole body, which, but for the laches of certain of its members, would be got rid of altogether." To this it may be added that herein justice and sound policy go hand in hand; for, of all means of getting rid of a preventible evil, surely that of making its removal the strong and unmistakable interest of those upon whose will its continuance depends, must ever be the most simple and the most certain.

There are two modes of proceeding whereby to fix the cost of repression exclusively upon the property concerned in harbouring the predatory class, viz., 1st, that of directly imposing the amount upon such property, so far as its complicity can be proved; and, 2nd, that of exempting from the necessary rates, all properties that could be shown to be wholly free from such complicity.

Of these two modes, the latter would be by far the most easy to carry out. For a direct imposition being indistinguishable from the infliction of a penalty, the burden of proof would lie upon the parties demanding such imposition; who would of course have to contend with the falsehood, concealment, evasion, and trickery of every kind, in which the wrong-doer naturally seeks refuge, and but too often with triumphant success; whilst the grant of an exemption from the rates would, on the contrary, be the conferring of a privilege, and the burden of proof would of course then lie upon the claimant for such privilege; who, unless he appeared with a clear straightforward case, would have no chance of success. Any sign of concealment, evasion, or trickery, would at once throw the claimant out of court.

Those who are practically acquainted with the difficulty of obtaining legal proof of guilt, in cases in which there is no moral doubt whatever, or none that the person accused, if innocent, could not clear up at once, will appreciate the advantage to the community of thus turning the tables upon the supporters of the criminals by whom our towns are infested; and this without any hardship; for surely those who have kept their property free from complicity with criminality, cannot have any difficulty in meeting the inquiry whether they have done so or not.

As every grant of exemption would increase the pressure upon those owners who were unentitled to it, the accumulated weight would soon force them to dispose of their interests to men who had established such title. By this process our towns would be soon purified from the predatory class. The whole host of habitual burglars, garotters, pickpockets, forgers, coiners, thieves' instrument-

makers, receivers of stolen goods, trainers of young thieves, flash housekeepers, &c., &c., &c., would be dislodged from their dens and hiding-places; and unless they took to honest courses (in doing which every hand should be stretched out to help them), they would find no shelter other than the workhouse or the gaol; nor, so long as the principle herein recommended were maintained, could they ever succeed in re-establishing themselves amongst us.

The dislodgement of so large a number of offenders, and the total stoppage of their criminal gains, would in all probability necessitate the adoption of some temporary measures to prevent their being driven to desperation. Nor should we forget that, fallen as they are, they are not the less our fellow-creatures. We have more than once been compelled, by the occurrence of violent epidemic disease, to make temporary provision for the shelter and maintenance of portions of our town population, and some analogous provision would probably meet the circumstances in view. Whatever difficulties may beset the state of transition, they could, in the nature of things, be but short-lived. The final relief would be great and permanent.

It may stimulate our zeal to call to mind that which our fore-fathers accomplished under analogous circumstances. The "sanctuaries" of the seventeenth century were not more alien to the ruder times of mounted highwaymen, than the existing "thieves'-districts" are to our improved civilization. Macaulay has given us an instructive account of the suppression of that frightful den of crime, the sanctuary of Whitefriars,—"Alsatia," as it was called—of which Sir Walter Scott has left us so lively a picture in "The Fortunes of Nigel." Some 800 known cut-throats, robbers, receivers of stolen goods, brothel-keepers, &c., had herded together in this "sanctuary," from time out of mind; ever and anon breaking out for the purpose of murder and robbery, as opportunity offered or as their needs became pressing. At length the public patience became fairly exhausted; men aroused themselves as from a lethargy; supineness gave way to alarm and resentment; the requisite powers were obtained from the legislature, and at one single touch of a really firm hand, the ranks of scoundrelism were at once broken, and put to the rout, and the whole mass vanished as if by magic.

OPENING ADDRESS of the PRESIDENT of SECTION F (ECONOMIC SCIENCE and STATISTICS) of the BRITISH ASSOCIATION for the ADVANCEMENT of SCIENCE, at the THIRTY-SECOND MEETING, at CAMBRIDGE, in October, 1862. By EDWIN CHADWICK, Esq., C.B.

As it has become customary in this Section, as in others, for the gentleman who fills the office which I have the honour to hold at this meeting, to open the proceedings by stating some of the views which he may entertain on the progress of the sciences in which the members specially attached to this section are the most interested, I beg leave to solicit your attention to the observations which I now submit to you in conformity with that practice.

Besides statistical science, it has been our custom to treat of economical science in its widest and most popular sense, not confining it to economy in its political relations, but treating of economy in its domestic relations, comprising house-rule, as well as what have been called burgh-rule and state-rule. It has been our practice to look to the conclusions deducible from any set of facts which may come before us, without considering of their position under any system, or their conformity to any general scientific definition. It is useless to discuss the merits of this course, for it is the only one at present practicable. On this occasion, however, I solicit your attention to some elementary questions, progressive to the formation of wide scientific principles.

Amongst the foremost popular objections to economical science represented by popular writers are these: that it does not take into account human feelings and passions, or mental pains and pleasures; —that it seeks only material wealth, no matter how obtained, and at what expense of human suffering. This allegation I shall show to be a mis-statement; but I would observe, that it might as well be objected to physiology that it does not take into account external beauty of form or of colour, which are the main objects of cultivation by the sculptor or the painter, as it is to object to economical science that, regarding immediately the material and physical objects of production, and services conducive chiefly to physical well-being, it does not occupy itself with the spiritual, and the metaphysical, or with mental pains and disabilities, which are the province of the theologian and the moralist, as political rights are the province of the politician.

Our great word and historical scene painter, my friend Mr. Car-

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lisle, designates political economy as the "dismal science." As propounded by some of its professors, reasoners of the abstract and geometrical class, from assumed data, it certainly led to some large dismal conclusions, chiefly on the population question; but on closer and more recent examination, that is to say by the close scrutiny of particulars, by exhaustive collections of them, and wider inductions from them, it will be found that those conclusions are dissipated, and others of an opposite character, more in harmony with popular sentiments and instincts and with elevated views of human progress, are confidently indicated. Another popular writer, also an able word-painter and elevated cultivator of aesthetics, Mr. Ruskin, has lately rushed amidst the economists, and taken them to task for what he considers their short-comings, because they do not, amongst other things, treat of the "roots of honour," or of "habits of gentleness and justice,"—assuming gratuitously that those qualities are not recognized and are disparaged because they are left to be cultivated and their opposites to be dealt with by the divine, the moralist, and the jurist,—who will be found to have plenty to do for their cultivation by separate divisions of labour. Mr. Ruskin cites a declaration in favour of Truth in commercial transactions by an old Hebrew merchant to whom a statue was raised in Venice, and he cites it as if it were new to the commercial and economical transactions of our times, and at variance with political economy, which he represents as "proclaiming vociferously for the law of the universe that a buyer's function is to cheapen and a seller's to cheat."

Now, I had the pleasure of the acquaintance of perhaps the most wealthy and successful merchant of the last half-century, a member of our political economy club, the late Mr. James Morrison, who assured me that the leading principles to which he owed his success in life, and which he vindicated as sound elements of economical science, were: always to consult the interests of the consumer, and not, as is the common maxim, to buy cheap and sell dear, but to sell cheap as well as to buy cheap; it being to his interest to widen the area of consumption, and to sell quickly and to the many; the next maxim as involved in the first principle—always to tell the truth, to have no shams; a rule which he confessed he found it most difficult to get his common sellers to adhere to in its integrity, yet most important for success, it being to his interest as a merchant that any ship captain might come into his warehouse and fill his ship with goods of which he had no technical knowledge, but of which he well knew that only a small profit was charged upon a close ready-money purchasing price, and that go where he would he would find nothing cheaper; it being, moreover, to the merchant's interest that his bill of prices should be everywhere received from experience as a truth, and trustworthy evidence so far of a fair market value.

I might cite extensive testimony of the like character to show that the very labour and risks of continued deceits, however common are detrimental to the successful operation of economic principles and that sound economy is everywhere concurrent with high public morality. We may, indeed, claim from professors of high art like Mr. Ruskin, that they have yet to take into account more of the economical than they are aware of, much of the economical being immersed in the physical and material in connection with the beautiful. I remember talking with him once on his search for works of art in Venice, on which he discourses so eloquently, and, describing to him my own feelings at the filth and squalor of the population, as suppressing any of admiration for art amidst the foul and pestilential. I remember his admission that in that city the seats of ancient art were commonly centres of filth, so much so that his attendant in his explorations would sniff an ill odour, and when it was strong would say, "now we are coming to something old and fine"—meaning in art. I would submit that the nose of the attendant gave a truer indication than the eye of the painter, for the right direction of labour, which must be for works of purification to produce the truly beautiful, which is always connected with the economical. To do him justice, however, I might claim the honour of having him as a disciple, even as an economist in this,—that he now recognises the laws of health and the exercises enjoined by them (which are the true foundations of the beautiful), as sources of national economy. I cite his pictorial expression of the conclusion, "That it may be discovered that the true veins of wealth are purple, and not in rock but in flesh; perhaps even that the final outcome and consummation of all wealth is in producing as many as possible of full-breathed, bright-eyed, and happy-hearted human creatures."

Adopting for myself this statement of the end of economical science, and adopting it not hypothetically but positively, yet as the artist for his purpose views the human being as a subject for the cultivation of the beautiful—as the physiologist for the cultivation of his art views him solely as a material organism, so the economist for the advancement of his science may well treat the human being simply as an investment of capital, in productive force. Taking this view and confining our consideration to the value of a human being simply as an investment of capital, I apprehend that that value, and the economical principles would be evolved by the inquiries necessary to determine the compensation due upon anyone killed by a railway accident. If it be a child, how much capital has been invested in it; that is to say, how much must it have cost to rear it? How much capital must be expended to rear one of the like? What were the chances of the duration of its life and working ability which are determinable by the

insurance table? What would be the future wages of a labourer of the class during that time? What are his possible savings upon those wages over and above absolute necessities of life?—the total of which would represent the value of the investment, for which compensation would be due, apart from the pains of the loss inflicted upon the survivors, apart, also, from what may be deemed the politico-economical value of the individual, the profit which is due to the capitalist for his labour and risk in finding work, and the payment for the capital advanced as wages.

Now, on the actual contract price in England of raising an orphan child, in a well administered public institution, the actual cost, in food, clothing, and labour, would not be less than 4*s.* 4*d.* per week. Its education and physical training would be about 4*d.* a-week more, making a total of 12*l.* 2*s.* 6*d.* per annum. At 11 years of age, when the child can generally earn its own food and clothing, it may be taken as an investment of 130*l.*, or the value, say, of a team of four first-class farm horses, or of a hunter; or at 21 years of age it would be an investment of about 250*l.*, or about as much as two hunters. Economically he may be viewed as an amount of available productive power. But in the existing insanitary condition of towns and of habitations, the expenditure in raising the one individual does not represent the whole cost of raising that power. In towns in a low sanitary condition, large masses of children are born only to die before the attainment of their maturity. Dr. Farr will support me in showing that in such towns as Manchester, Glasgow, and Liverpool, one-half the children born are in their graves before their fifth year, and much more than one-half by their twentieth year. The expense of the productive force of one adult worker is under such conditions that of rearing two children for each worker obtained. The domestic and political economy of these conditions is much the same as the agricultural (or hunting) economy would be, if to obtain one working horse two colts had to be reared. The investment on the young artisan, at the end of his apprenticeship, may under these conditions of waste be regarded as equivalent to that in three hunters.

But for how long will that investment continue to be productive? The unproductive investment in early childhood must be distributed over the whole period of his working ability. If the duration of that ability be short, the annual instalment of capital in rearing, to be wiped off by an annual instalment of repayment, must be heavy; if the duration of the working ability be long, it will be light. To the general population of Manchester it would be about twenty-eight years, to the artisan class especially it would be twenty-five years, whilst in less unfavourable sanitary conditions, taking one in the same county, Ulverstone for example, it would be forty years.

Now, it would be of great importance to a man of the wages class
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(as well as to most of us) if he could be got to consider himself as an investment, and how much capital there is in him, and of the relation of his own labour to his own capital, and how it may be economised. When the truths of economic science gleam upon his mind, as it may be expected to do with the progress of public information; when he is made aware, amongst other things for the economy of that capital, that the cheapest tenements are often the dearest to inhabit; that to settle in a badly administered city, to live in an ill-conditioned house, where he has no proper water supply or means of cleanliness, or to work in a badly ventilated shop, will, in the long run, subject him and his family to double the amount of expensive sickness that he would incur in a rural or a better conditioned district; will subject him to the loss of ten or twelve years of the duration of working ability; will at the lowest estimate subject him to an aggregate loss of 200*l.* of the value of his labour; will deprive him, in all probability, of the means of acquiring the last consolation of old age—easy and respectable independence, and rest upon his savings from labour—then he may be expected to resist the temptations from increased wages to settle in such place, or to insist upon conditions suitable to his labour, or the due economy of his investment; then we may expect that under the pressure of economic elements, the attention of manufacturers will be directed to the economic conditions of work; then it will be that owners of inferior tenements, and landlords who are corporations, will be made aware of the coincidence of interest with duty, that their rents are better paid when there are fewer visitations of excessive sickness and premature mortality amongst their tenants; then may be yielded to economic principles that action for which appeals have been made in vain to the moral sentiments.

The annual excess of preventible deaths beyond an imperfect standard, in the county of Lancaster, is upwards of ten thousand adults per annum, who lose each more than ten years of working ability; the cost of the lost labour cannot be estimated at less than between three and four millions per annum; of the excess in sickness, nearly 400,000*l.* per annum; of the excessive funerals, upwards of 70,000*l.* per annum; of the whole county, upwards of four millions per annum. The data for this estimate were checked by Dr. Lyon Playfair, and were given in his report to the Health of Towns Commission, and have not been controverted. In my report of 1842 on the sanitary condition of the labouring population, as displaying the effect of the overcrowding, or the bad ventilation of places of work, I showed that when the workpeople were discharged from them in periods of distress, fever, instead of increasing, as was once the hypothesis, diminished, and fever wards were almost emptied, the people living upon simple food being in search of work abroad in the less

impure air of the streets. In accordance with the observations which I then made, in the present seats of the most intense manufacturing distress, the average sickness and mortality, instead of being increased, has, it has been noted with great surprise, diminished. The very town where we were assembled (Cambridge) may be cited as an example, though in a lower degree, of the waste of capital to an extent of upwards of 20,000*l.* per annum under the same heads; to the extent, as I would inform the townspeople, of not less than 20,000*l.* per annum as compared with the rate of sickness and mortality prevalent in the district of Linton and Newmarket, a loss due to the neglect of such sanitary measures as have been taken in the neighbouring city of Ely, in the newly and properly drained portions of which the death-rate has been reduced nearly one-third, and that too by measures which leave much to do, but which yet give the inhabitants, as it were, a jubilee every third year in which there are no cases of sickness and no deaths.

The annual waste of capital in England and Wales, from the loss of labour, from excessive sickness and premature mortality, I estimate at the very least at between fourteen and fifteen millions per annum.

As illustrative of the economy of prevention, I cite the following from a paper which I submitted to Lord Palmerston, in 1856, previously to the issue of the army sanitary commission, and which I refer to now, because the reduction then spoken of as an instalment has subsequently, and by as yet partial measures, been practically accomplished. I submit it as applicable in principle of economy to the labouring population. "The expense of every "trained soldier—and the greater proportion of the deaths appears "usually to occur after the period of training has been completed—" is usually stated at 100*l.* to 120*l.* per man; ten lives per 1,000 of "mean force saved will save the public 1,000*l.* per annum. The "reduction of the non-effective period of service, by the reduction of "the average period of sickness from fifteen days to six or to five, "the reduction of the numbers constantly in the hospital from an "average of forty-six to fifteen, will be equivalent to an increase "of the effective force by 30 per 1,000 of mean force, or a saving of "expense proportionate to the numbers of the men to the expenses "of the whole regiment; the total sum which may be saved by sanitary measures would be equal to between 1,000*l.* and 2,000*l.* per annum per 1,000 of mean force at home or in the colonies. This, "capitalized at 5*l.* per cent., would, were it needed, justify an expenditure of 30,000*l.* or 40,000*l.* per 1,000 of mean force for effectual "measures of prevention." The saving by sanitary measures, as reported by the Secretary of War, is now equal to a brigade of mean force annually.

There has been a reduction of deaths from the zymotic, the fer-

menting, or foul air diseases, to less than one-quarter; of the tubercular diseases to less than one-half; of the mortality of the line, from 17·9 to 8·36 per 1,000. Here is a brief statistical display of what has been done,—made by Miss Nightingale, to whose labours, with Lord Herbert, in this special branch of sanitary service the results are pre-eminently due.

	Deaths Annually to 1,000 Living.			
	Zymotic.	Chest and Tubercular Diseases.	All other Diseases.	All Causes.
English male population, aged 15—45, 1848—54	2·0	4·5	3·3	9·8
Infantry of line serving at home, 1837—46	4·1	10·1	3·7	17·9
Infantry of line serving at home, 1859—60—61	0·96	4·2	3·4	8·56

Now, each head of the reduction of disease may be treated by the economist as a reduction of expense—a staying of waste. The standard of comparison, the death-rate prevalent amongst the ordinary population, I aver, is in excess full one-half beyond what is obtainable, by means which are so certain, that their attainment and maintenance may safely be made matter of contract as for the preservation of investments. We give these facts in aid of the divine and the moralist. Every unit of such statistical figures as those cited, involves a case of pain in the being whose power has been stricken down, of mental suffering in survivors, and of diminished estimation of life on the parts of those who witnessed it going on to the end, which the orator and the man of feeling, may well pourtray; and let him do his separate duty by coming forward and pourtraying it, and exhorting governors and the representatives to their duties of not letting ill alone, of not giving the representations of evil the go-by,—of not for the sake of selfish ease, violating their moral duties to investigate and forward the means of prevention. Meanwhile, the economic administrator and the legislator, whose qualification it is pre-eminently to be an economist, should strive at his great task, which is, to unite interest—personal and pecuniary interest—in support of that duty, which it is the separate business of the moralist, and the right exercise of the pulpit to preach. Where that union can be effected its operation is most potent and complete.

I have not time, nor would this be the occasion for the development of that problem. I will only give an illustrative example of that union. At the commencement of the system of transportation

there was a severe mortality amongst the convicts. At first, instances occurred of as many as one-half being thrown overboard during the passage. Humanity was appealed to in vain, and the sufferings and loss were held to in the natural and unavoidable order of things until the economic principle was applied of contracting for results. Instead of contracts being made for the numbers embarked, payment was contracted for only for each person landed alive. This opened the eyes of shippers to the advantages of practical applications of sanitary science, and they engaged medical men and gave them means, and gave them, too, an interest in its instrumental applications. The result was a reduction of the sickness and mortality amongst persons of bad lives to about $1\frac{1}{2}$ per cent. I took some pains to get the principle applied to the protection of pauper emigrants, and with the like satisfactory result. In these cases economy beat sentiment and benevolence. It evoked unwonted care for the passengers, and secured to every poor man who died at least one sincere mourner. When the sentimental and the moralist fails, he will have as a last resource to call in the aid of the economist, who has in some instances proved the power of his art to draw iron tears from the cheeks of a city Plutus.

Within the limits of the duration in years, of the productive power of the investment in a labouring man, economical science has to estimate also the degrees of intensity of its application during hours of the day as well as during the days of the year. I have paid much attention to this topic, and collected accounts from the employers of labour in different countries. From these I am enabled to state that, in general, and with few and rare exceptions, the British labourer is during the working hours of the day the foremost in the world. Two English labourers or artisans are proved to be equal in productive power to three Danes, or three Norwegians, or three Swedes, or three Norman labourers, or three Germans. English miners in Germany and in Sweden, though paid much higher wages than the natives, do proportionately more work in less time. Why this should generally be so as against people of kindred races living under different political and social conditions, is a question which, as it would require much local investigation, I have not attempted to solve.

But the advantage as against other races is yet greater. Mr. Robert Rawlinson, our sanitary engineer, who had experience of the native workmen, artisans, and labourers in the Crimea and in Turkey, assures me that it would have been cheap to have exported English artisans at 5s. a-day, as against Croats, even at 6d. a-day, and so with other classes of labourers. Mr. Hawkshaw, the president of the Civil Engineers, who is conducting extensive railway works in Russia, tells me that he derives no pecuniary advantage from the best of the

cheap serf labour there, whether common labourers or artisans. From India reports of engineers are similar in relation to the larger proportion of work. As against serf labour in Poland, a Polish nobleman informed me that he found that the labour of five serfs was about equal to that of two English agricultural labourers. A shipowner, who had ships repaired in almost every port in the world states that he has nowhere found the work done cheaper than by the dearer labour in the British ports. Mr. Ruskin talks of the power of wealth being "greater or less in direct proportion to the 'poverty of the men over whom it is exercised.'" He talks of "masters never allowing servants to be idle," "feeding them as poorly and "lodging them as ill as they will endure," and holds up this course as being in accordance with economic principle. If he would make inquiry of the most successful employers of labour—those whose pay is chiefly piecework, he would learn that they prefer those labourers who earn the most wages, who therefore are the least poor; and that they find these the most profitable to them—time of execution, as well as the convenience of the direction of the few skilled and trustworthy, instead of the many unskilled and less trustworthy being taken into account. Whatsoever may be the supposed interest of any employer in poor labour, he will find that he will not get the best results without the labourer having some interest in it and a power of obtaining it which are not given by abject poverty. In fact, the rationale is, as Mr. Whitworth expressed it to me in respect to his horses, of which he takes great care, that he could not afford to work his machines with a horse that cost less than thirty pounds, or that ate less than eighteen pounds weight of oats a day.

But taking the general fact to be as I have stated it—that the productive power of two British labourers is equal to that of any three on the Continent, it is important that the economical principle involved in that fact should be understood and appreciated. In the economical aspect in which I am considering labourers simply as investments, as capitals—inasmuch as by better direction two capitals are made as productive as three—as one capital is thereby saved, that is to say, the expense of the required systematic training, of the food, the clothing and the lodging, which make up the third capital; this third saved capital may be, and the bulk of it is, actually divided between the other two, in the shape of extra wages, with some extra profit to the capitalist. This third capital saved is, I conceive, the source of the animal food, the drink, and the extra stimuli, in which our labourers indulge beyond those on the Continent, which amount, according to my reckoning, to upwards of seventy millions annually, or one-third the estimated wage-fund of Great Britain. But if two capitals or two labourers are equal to three, two populations, speaking roundly, are economically equal to

three, and it may be confidently asserted that the twenty-seven millions of population of Britain are from this very cause, in economical force at least, equal to the thirty-seven millions of the population of France.

Individuals and nations have yet, as it appears to me, to be instructed by economical science on the waste of capital, not only from, misapplication during available hours, but during available days of working ability. Mr. Moses Engel, the Hebrew principal of a school for teaching the children of Jews, in speaking of the inability of parents of that community to pay for the education of their children, thus indicates the economical grounds why the Jews must, as a people relatively to such a people as the English or the North American, be always a poor people, and a badly educated people too, ignorant as well as poor. "Jews, by their religious and social distinction, are "exceptionally placed in regard to business; their religious scruples "compel them to abstain from labour on Friday evenings, Sabbaths "and festivals—say about one-fifth of the year; their respect for social "laws induces them to refrain from their occupations on Sunday. "Thus they lose about one-third of the year. Hence few Christian "masters will take Jewish apprentices, and the circle of Jewish trades "is contracted, because of a Jew's inability to compete against men "whose hours of work are so many more than his own. Hence, too, "the Jewish artisan or tradesman earns less than the Christian "artisan or tradesman; and hence arises a greater necessity for the "earnings of children; thus, Jewish children are often withdrawn from "school at nine or ten years of age; and even while supposed to be "on the school books, they are so often kept at home to assist at some "domestic or industrial labour, that they benefit but little by "education."

In France, according to Vauban, it was necessary in his time, and I am informed that in the greater part of that country it is so still, to take from the working period of the year, besides the 52 Sundays, 38 fête days, 50 days of frost, 25 days of inability from sickness, 20 days for fairs, markets, and family affairs, leaving the French workman a total of only 185 working days to his year. In some parts 62 days are put down as feast-days, and 41 days for bad weather. In Prussia there are stated to be only 220 working days to the year. In the course of some inquiries in relation to the condition of the lower classes of the population in Ireland, I was informed that there was scarcely a cottier who did not attend a market once a-week, though he had nothing to sell, nor failed to attend the monthly fairs whether he had any business there or not, nor missed attendance at any one of the funerals of persons of his class or connection, and that their wakes and funerals would consume between twenty and thirty days in the year; and that moreover he religiously

observed all the saints' days, and that these deductions made more than 100 days in the year, thus bringing the sum of the working days under bad sanitary conditions and idleness, below those of the peasantry in France, or to less than two-thirds of the working days of the English labourer.

But it may be asked of these populations, are they not, with the greater freedom from toil, less early worn out than the English labourers? Statistics answer—No. They are sooner worn out. In France as well as in Ireland the general average duration of life is lower than amongst the classes in England, and so far as I am enabled to ascertain as to the duration of peasant life, and of the agricultural classes generally, it is much lower than in England, where there is yet wide room for improvement. In those countries there is then a greater expenditure of capital to obtain a less amount of production. Viewing the labourer individually, economically, as an investment, his waste, is chiefly in the misapplication of the hours of his days, commonly to the extent of one-half the productive power; then in the misapplication of the days of his years, to the extent of not less than one-third, and in the loss of productive years of his life, to the extent of at least another third by premature disability and mortality, and that too, I repeat, as compared with a positively inferior standard. Add these economical results together, of which politicians take no notice, and I apprehend that they will of themselves make a real condition of the people question, and will account for the wretchedness of populations, independently of any conditions of political privilege to which it is common to ascribe them. I might, if there were time, present from recent accounts examples of these economical defaults, in the reported condition of the Sicilian and other Italian populations.

In England there is, I believe, on the other hand, much waste of capital as working power, by overwork, chiefly in the duration of the working hours of the day, most certainly so in relation to the labour of children, who, too, in school-time are subjected to over-mental and under-bodily work, and in the workshop to over-bodily work. When engaged under the commission of inquiry into the labour of young persons in factories, my colleague, Mr. Thomas Tooke, agreed with me in the adoption of the conclusion from the evidence, that the interference of the State was requisite to prevent the young and future working stock of the country from injury by overwork, as well as by exclusion from education by reason of overwork. We found children and young persons kept at work during the same stages as adults, which, on physiological grounds, we pronounced everywhere to be overwork and wasteful, just as it is everywhere overwork and wasteful to work a young and growing colt with and during the entire stage with a full-grown horse. We did not fail to

represent the sufferings of the children, as well as the economical grounds for legislative interference; but we were opposed on an assumed economical position, that the amount of produce from machinery was as the hours of work, however long, as was also alleged the reduction of the establishment charges on the machinery to the extent of its continuous hourly use; and it was alleged therefrom that the reduction of the hours of the children would practically occasion a corresponding reduction of the working time of the adults, and would hence incur a loss of capital.

We met this plea by a provision for working children in double sets of half-day working time. We relied most confidently on the fact of the injury done to the children, and the waste thence arising, as grounds for interference. But our measure for interference, which was resisted on assumed economical grounds, was carried chiefly on sentimental impressions. We were prepared, nevertheless, to prove that the assumed economical ground, as to the production from machinery being as the duration of the working hours, was fallacious. We could have proved that the produce, even from the machinery called especially "self-acting," was largely dependent on attention,—on mental as well as manual labour,—that mental labour cannot be indefinitely prolonged productively; that beyond certain limits, even with the stimulus of piece-work, the labour with the so-called self-acting machines cannot be prolonged productively, as the amount of spoiled work increases and the work turned off diminishes.

Experience of these economical principles, as applied to labour in factories, has fully established them, for, from the improved attention during the reduced hours, and the better sustained labour in the reduced hours, the former amount of production has, on the whole, been maintained. Lancashire, with restricted child labour and short hours, now fears no competition with the unregulated labour of Austria, with its so-called cheap labour and long hours, of fourteen or fifteen hours a-day. Foreign manufacturing capitalists in Alsace and the Tyrol, have declared to me that if they had capital to invest *de novo* in manufactures, they would prefer to invest in Manchester. The protection of children's labour in the growing stage has decidedly arrested grievous physical deterioration and waste, and there are fewer deformed and maimed young persons there of the rising generation. Manufacturers who were formerly opposed to the principles of the Factory Act, now urge its general extension to agricultural as well as to mining and all other labour. I am not particularly informed on the early closing movement, but I have been assured, in respect to some branches of trade, that the reduced hours of business have led to improved methods and habits on the part of the public, so that quite as much is done as before during the longer hours.

Our overwork in England would appear to be chiefly in the hours of the working days. The appointed seventh day of rest appears to be above any economical question. Longer intervals would be insufficient; shorter, if the six days are moderately occupied, were unnecessary. At the Dublin meeting of this Section, Mr. Bianconi, the great post-horse contractor, was complimented on religious grounds for the rule he adopted to give all his horses rest on the seventh day; but he frankly disclaimed the religious motives ascribed to him, and declared that he adopted the rule because he found that by the seventh day's rest he made 11 per cent. by the improved working power and value of his horse stock. I believe that an economic reward is attendant on obedience to the command in respect to the human stock.

The most correct adjustment of human force for the most productive application, as an investment, would require considerable observation of varied sanitary and other conditions over long periods of time. Amongst the means of sustaining that force, would be what may be termed the metaphysical means;—pleasurable mental excitement accompanying the work, or in the results. On physical means alone, as food, clothing, housing, however good the work after a time often goes on heavily, wearily, slowly, and it requires mental stimuli to sustain the bodily energy. Thus a band, when a march flags, gives relief and force. I was once present at a discussion between two engineers, who had large bodies of navvies and artisans camped out for work in isolated districts, as to the results and comparative economic value of their respective methods of providing mental relief and stimuli to work; the one had hired musicians and dancers, the other scripture readers and animating or sensation preachers,—each method being treated with perfect indifference as to choice, except as a means of productive force and profit on capital in the work done. In weaving shops and in places of semi-automatic work, it is I am informed becoming customary to employ readers to read novels, works of imagination and histories, and matters of stirring interest, which is found to give to the hand, somewhat of the life energy and regularity of movement, which the band gives to the march. Hence the "dismal science," to use Mr. Carlyle's phrase, may find a place for him, and for imaginative writers, like our friends Mr. Dickens, Mr. Thackeray, and Mr. Ruskin, rivals to bandsmen as suppliers of stimuli to force,—enlivenment to work, and of aid, which they may not have intended,—to capital and production.

Amongst the means to sustain force, are some physical means of which physiology gives information. It may be set down as an economic axiom, that whatsoever else they denote,—filth and squalor in a class or population, denote loss of power and waste, and amongst

other things, an immediate waste of food to produce a given amount of force. A friend of mine, a general, who was beleaguered with a battalion, in Spain, had his men put upon short rations. To occupy and amuse them, he sent them to a neighbouring river to bathe daily, and he found what he had not expected, that under this course of daily ablution, his men were in better force, that his power was greater, on their short rations, than other men were on their full rations. It is beginning to be found out that cleanliness is profitable for farming stock. Experiments are related of the comparative growth of pigs, unwashed and uncleansed, as compared with pigs of which the skins are washed and fed on the same sorts and quantities of food, and the growth of the washed was nearly one-fifth greater than of the unwashed, and in other instances the gain from cleanliness was greater, and so with horses. Amongst soldiers of the line who have only hands and face washing provided for and the death-rate is upwards of 17 per 1,000. When sent into prisons where there is a far lower diet, sometimes exclusively vegetable, and without beer or spirits, but where regular head to foot ablution, and cleanliness of clothes as well as of person is enforced, and there their health is vastly increased, and the death-rate is reduced to $2\frac{1}{2}$ per 1,000. I believe that a large proportion of the superior health obtained in prisons on very low diets, some of them costing not more than fifteen or eighteen pence per head per week, is to be ascribed to the complete personal purification enforced. Instances have come under my observation in schools and public institutions, where on ventilation and pure air being introduced, there has been a reduction of the sickness and death-rate by one-third, and on the introduction and daily enforcement of regular daily ablution, there has been a reduction of the sickness and death-rate by nearly another third, the food being unchanged. I believe that a large proportion of the greater duration of life amongst the higher classes, is due simply to superior personal cleanliness. I am confident that I shall be justified in stating, that beyond any saving in the power of food, that the practice of complete personal cleanliness, would be found to be a great economy, and that the regular daily head to foot ablution and purification of the person would alone add, at least one-fifth to the duration of the economic force of the population. Economic science, consulting sanitary science, would thus achieve, Mr. Ruskin's aspiration, of which the success would be visibly denoted, by a well-formed and rosy-cheeked, as well as "full-breathed, bright-eyed, and happy-hearted population."

As an important part of this topic, considering the child and the man as an investment, I am anxious at this time to direct attention to the economic elements involved in popular elementary education. Hitherto popular education has been advocated, and rightly, on

religious and moral grounds. I wish to point out the support that economic science may give to them.

Considering a child to be for our economical purposes an investment, the elementary training and education are necessary, to increase the efficiency and productiveness of the capital employed. I have been at much pains on this point to ascertain from employers the comparative efficiency and value of educated and uneducated labourers, and I find one conclusion unanimously agreed to on the subject by all intelligent witnesses of wide experience and observation;—that education even in its present rude and in many respects objectionable elementary condition, is highly remunerative. Employers who have been at the expense of schools on high religious and social grounds, concur in saying that success is great on the lower economical grounds. In agriculture, intelligent workmasters are aware of the wide difference in result and value, between educated and uneducated, intelligent and unintelligent, labour, in the old and ordinary processes. But the expense of ignorance is the greatest in the obstructions which it presents to the introduction of machines, by which wages are augmented, whilst labour is saved. Wheresoever machinery is introduced, increased education and intelligence is proved to be necessary to the production of its best effect. I have been assured by experienced mechanicians, that notwithstanding the progress of machinery in agriculture, there is probably as much sound, practical labour-saving invention and machinery unused, as there is used, and that it is unused solely in consequence of the ignorance and incompetency of the workpeople. In manufactures, the deplorable deaths and losses which occur in the application of steam-power, have been long ascribed, by Mr. William Fairburn, to the want of suitable education on the part of workpeople, to render them competent for its safe—and most economical direction. Out of an average of about eleven thousand deaths, annually registered in England and Wales as from “violence,” between five and six thousand are set down by our colleague, Dr. Farr, as arising in connection with the use of machinery and steam-power. When the cases are inquired into, it is apparent that the greater proportion of them have been occasioned by ignorance and recklessness. Railway managers complain in respect to the frightful accidents occurring, of the stupidity of their agents and labourers as the cause, and of the extreme difficulty of getting those who have little to do, to do that little well. We may judge of the importance to our prosperity, of the efficient direction of labour-saving power, by the fact, that every nominal horse-power is equal to the saving of the manual labour of about seven men. The four hundred thousand hands in the cotton factories have, according to the last returns, the aid of two hundred and seventy thousand horse-power, which is equal to the manual

labour of a population of nineteen hundred thousand labourers, but by working, as may safely be done under competent direction, at high-pressure, the nominal horse-power may be doubled and trebled. This is often done, but not under the intelligent direction required, and hence frequent terrible disasters. One intelligent stoker will work the same engine with from one-third to one-half the amount of coal that another will consume; one will nearly prevent all smoke, whilst another will consume more coal and keep the neighbourhood under a cloud of smoke and filth with the same apparatus. The great mass of smoke which beclouds manufacturing towns betokens ignorance and waste. Those who talk of the dangers of over education, are grossly ill informed, and are themselves so far under educated. But we may find important evidence of the value of education, where it has heretofore been deemed by members of the legislature to be the least necessary, where it has been supposed that mere machines are required, namely in the naval and the military source of employ. Naval officers attest the fact of the greater efficiency of educated as compared with uneducated seamen, chiefly in this, that the intelligent educated seamen, require less expensive superintendence by officers, and that fewer men can be trusted for acting together. Some officers say they would work a ship with a fifth less; others with a fourth less; others with a third less of the more educated, as compared with uneducated seamen. In the army, officers, more especially the superior non-commissioned officers, who come into the closest contact with the privates, give similar testimony. Sir John Burgoyne, maintains that the sapper, who is an artisan, with some education, is, for the ordinary purposes of war, equal to three common linesmen, and is economical at his additional pay. In the new school at Hythe, as well as at the school for naval gunnery, the success in shooting is with classes almost as the education of those classes. The effect of the general extension of elementary education, even in its present condition, would be to bring up the whole of the ranks to the efficiency of those of them who have the best common elementary education, even such as that is,—the non-commissioned officers, and it would be amongst civilians to bring up the entire body of them to at least the efficiency of the better educated of themselves,—the foremen. Let any one who has been in a position of civil or military command, and who knows those sound, trustworthy, and most excellent classes, the non-commissioned officers and foremen, estimate what that economical advance would be—a manufactory of foremen as working men,—a regiment of non-commissioned officers as privates. Amongst the economical elements of sound education, are the saving of the labour and expense of commands, and of superintendence,—saving of waste from untrustworthiness,—from blundering, from wantonness, and the misdirection

of force to the object in view;—saving the waste of time in learning new occupations, or new processes—a most important quality in our changing conditions of labour markets, as we may now see on a large scale in the north. A policeman who is an educated man (as also a volunteer), learns the military drill in weeks, against the months occupied by the uneducated labourer; and so with other changes of the application of capital or productive force.

With all this gain, however, from the better education as now conducted, I have impeached it for waste before competent educationists, before Lord Brougham, and before French, and Austrian, and other education commissioners sent over to this country to examine our elementary education. I have challenged it for waste and grievous injury—bodily done by over sedentary constraint to double the extent of time at which the same amount of instruction is, under the half-school-time system, imparted;—for waste by the injury done by exclusion from necessary exercise, and exclusion from productive occupation or necessary practice towards it, during half-days, or on alternate days, from the tenth to the thirteenth year. On a great mass of evidence Lord Brougham has declared the impeachment to be well founded; or, perhaps I might put it less objectionably, that the possibility of considerable elementary improvement proved. M. Rapet, the inspector of elementary schools in France, and one of the most laborious and successful practical educationists in Europe, has expressed to me his concurrence with the English witnesses, that all the elementary book instruction which children of the ages for primary school are competent to receive, may be given in about three hours daily, if those hours be well employed. Mr. Edward Duepetiaux, the inspector of the reformatory and industrial schools in Belgium, on the experience of those same schools, where the mental labour is little more than two hours a-day, and the attainments of the children quite equal to those of the long-time schools, expresses a similar conviction, and that the present long school-hours are a cruelty as well as a waste; and I anticipate that the conclusions of other foreign education commissioners, who have examined some of the boarding half-time schools in England, will be similar. I propose to substitute, for the excess of sedentary occupation, physical training, including the military drill; and I find that that drill may be imparted to a hundred individuals in the infantile and juvenile stages, at the expense of keeping and imparting the drill to a single recruit in the adult stage. If from every hundred children so drilled in early life, the Government obtain only two or three recruits, it will be amply remunerated for the expenditure in the physical training of the hundred.

But on the practical testimony of such men as the distinguished members of this association, large employers of labour, Mr. W. Fair-

burn and Mr. Whitworth, it is established that for all ordinary civil labour, four partially trained or drilled men are as efficient as five who are undrilled. In other words, considering the child as an investment, for a trifling expense of about one pound per head, the productive power of that investment may, by physical training, be augmented by one-fifth for the whole period of working ability. Professor Laisne, an eminent professor of gymnastics in France, says that I underestimate the gain of power when I state it at one-fifth;—and that, by early and complete physical training, speaking on his experience of a French population, it is practicable to impart to three the working power of five. Taking it, however, at one-fifth, which I believe is an under-statement, a gain of one-fifth, upon our previous gain of one-third of the producing power of our population, as compared with continental nations of which I have spoken, is a gain upon that of the productive power of a fifth more of population, say of about two Scotlands or of two Lancashires, without the expense of educating them, feeding, clothing, housing, and administering their public affairs. Economically it is equivalent to an addition of one-fifth of the wage fund of the country, which Mr. Newmarch, with others, estimates at two hundred millions per annum. If it be examined properly in the several primary economical aspects, the refusal of any sum of money which has been talked of by Mr. Horace Mann or others, as requisite for the attainment of a complete education at the public expense, the withholding it will be found to be of the lowest financial imbecility and the wildest waste;—an economy which cannot sacrifice one for a sure gain of ten! But in my view no additional grants are needed, only a better administration of the existing expenditure on education, by which a much larger population may be educated well than is now educated ill, and with extensive physical injury.

I would now offer exemplifications of the concurrence of economic principle in support of religious and moral principle in public education. Treating each child as an investment of capital to be applied productively in honest industry, it is a total loss if he fail from moral defaults. If he turn mendicant, pauper, or thief, he will still levy a maintenance on the public; as a thief most wastefully by spoil, as a criminal in prison or in convict establishments, he will be kept unproductively, generally at double the expense of maintaining a pauper. The insurance table would give him, from the tenth year, the chances of forty years of life and waste, and this waste would be under-estimated at the keep of a pauper, or a total loss of 480*l.* on every case of failure. As a matter of fact coming within my own personal investigations under the Poor Law Commission of Inquiry, not above one-third of the children reared in the old parish workhouses with adult paupers, after leaving the workhouses, could be

traced into respectable service in self-supporting conditions, and where the old educational conditions are permitted to continue, there is a total loss of two out of every three investments. By an increase of expenditure for an improved teaching power, by trained teachers in many of the unions, these losses have been considerably diminished, but in the schools for district of unions in which the children are kept free from the influence of adult paupers, where a higher order of educational power is employed, though at a reduced rate of expense—where there is physical training, with the military drill, and sometimes the naval drill,—there the moral features of able-bodied children, the failures to the extent of disqualification for respectable employment are reduced to within 2 per cent.; to 2 per cent. of insurance charge upon the investment as against a previous rate of 60 per cent. of failures.

The case of the Royal Military Asylum, Chelsea, for the children of soldiers, which is a school of mixed physical and mental training, may be presented as another example of educational power and economy in result. In the investigation of the sources of juvenile delinquency or of mendicancy, and the parentage of the delinquents, one common answer was "Father a soldier" or "a sailor," "mother 'dead,'" or "mother unable to maintain him,"—"deserted;" and there cannot be a doubt that, in the absence of any care or provision for that class of children, the great mass of them must be economically total losses of capital. The following are the results of the returns of their characters from the commanding officers of the regiments which they have joined:—out of 376 children, 87 were returned as exemplary, 261 as good, 23 as indifferent, and only 5 as bad. But equally important is the evidence of the increased value given to the investments by good training, including the physical as well as the mental training, as displayed in the ranks attained by a large proportion of the children, and those ranks denoting the increased value which may be imparted to the investments by improved training. Twelve were staff sergeants, 25 sergeants, 32 corporals, 95 trumpeters or drummers, and 210 as privates. Out of this school seventeen had become commissioned officers. I attach much importance to schools of this description, as imparting with the physical training, those moral virtues, or speaking economically, those values implied in the term discipline, attention, prompt and exact obedience, patience, self-restraint, so important for productive applications. I am glad to find that his Royal Highness the Duke of Cambridge and the Council of Military Education are in advance in educational improvement, as they have ordered a reduction of the hours of sedentary application to an average of about three hours daily, and as the head master assured us on a recent visit with foreign commissioners, without any reduction of the

amount of mental attainment within the same periods in week or months.

Another school, the Naval School at Greenwich, I would cite as an example of the economical value of good teaching power, as proved by rare statistical evidence—for it is rare to get direct statistical evidence of the results of any particular course of education, or of education in general, as there is no systematic outlook on the career of the scholars and the results after they leave school. In respect of the civil district orphan schools, the results are ascertained by the inquiries of chaplains at their places of service. In the instances to which I have last referred, the results are ascertained by regular returns from the commanding officers. Some years ago, when the education given at the Naval School, at Greenwich, was on an ignorant notion of a low education and training being all that was requisite for a sailor;—then, there was great moral disorder, great waste, as shown by desertions. The statistics with which I have been favoured by the Reverend Mr. Fisher, the principal of the school, made up from the officers' returns for a series of years, and the school returns of intellectual progress, prove that the rise of intellectual improvement is accompanied by a closely corresponding rise in moral and also in economical result, by fewer or no desertions, by the advancement of the value of service obtained—as shown by the increased proportion of petty officers, and the appearance from amongst them of superior officers.

The general economical deduction from such evidence, is, that were the same methods of physical and mental training made general, as they might be, we should, in this special service as in the civil service, get equal or greater power with from one-fourth to one-third fewer men to enlist, feed, clothe, carry, and pension on retirement, which would be much longer deferred,—and consequently that we could afford to pay them better, and could better compete for voluntary enlistment with the civil service market. The progress of mechanical improvement in gunnery, with which it is the province of the mechanical section to deal with, as members of that section specially conversant with the topic agree, is to give greater power to fewer men, with higher aptitudes,—such aptitudes as sound physical and mental training alone will ensure. The tendency of those improvements is to give the battle to economic science, husbanding and wielding capital, with the aid of mechanical means, applied by skilled artisans, as engineers, under scientific commands. Educational statistics, such as those to which I have referred, demonstrate the practicability of completely abolishing the whole of that waste incurred by juvenile mendicancy and delinquency, and the great mass of habitual delinquency. So certain are the effects of the training and educational power as applied under the half-school time system,

that contracts might be made for the attainment of economical as well as moral results in these respects. Under existing circumstances, it is well to subscribe to reformatories as to hospitals for the treatment of the sick, but giving exclusive attention to them is like giving exclusive attention to the foundation and maintenance of hospitals for the alleviation of marsh and foul air diseases, without regard to the drainage of the marshes, or to the removal of the sources of the foul air whence the diseases arise.

The treatment of the stock of labour of the country as an investment, and of the chief conditions by which the productive application of that investment is diminished, or the capital wasted, would be incomplete, if we did not refer to the waste of the stock by excessive standing armies in time of peace, not to speak of wars. Armies have an economical value, as hedges necessary for the protection of production, but fields may be wastefully hedged to the injury of production. The conditions which withdrew upwards of 400,000 men from productive industry in France, 350,000 in Austria, 200,000 in Prussia, always in barrack or camp, and others in reserve, and a total of upwards of three millions of men as peace establishments in Europe, are conditions on which economists of all nations may be called upon to enlighten peoples. England has by her comparative economies in respect to military establishments, a store of power, from the consequent accumulation of capital, to get up military force when required to sustain war. In an economical point of view our volunteer movement is of great value, as supplying a better defensive force than old soldiers were inclined to admit, as diminishing the extent of need of a standing army, and as supplying this force without interfering with productive industry, and, indeed, in respect to large numbers engaged in sedentary occupations, favouring that industry, by giving the young the healthful exercise of which is requisite to the development and maintenance of their civil, productive, and economical power and aptitudes.

In many respects the volunteer movement is a sanitary as well as an economic movement. But does it not commend itself, as an economic measure, to make a general public provision for such military training, at those periods when all authorities acknowledge it to be most efficient, namely, the infantile and juvenile periods, the school periods, when it not only does not interfere with the productive industry of the nation, but is in itself a most necessary and powerful preparation for it? To the economists of France we may appeal for representations against the waste which prevails there, and justifies or provokes the like waste of the labour stock of surrounding nations. To them it may be pointed out for consideration, that one year's cost of each soldier would subsoil-drain five acres of land permanently, and would repay the cost in five years by

extra production; that one year's keep of every regiment would subsoil-drain more than two hundred and fifty miles of road, and serve as outfalls for the subsoil drainage of the adjacent fields, which require drainage through a large part of France. Their yield of wheat does not average more than from thirteen to fifteen bushels an acre, with all their advantages of soil and climate; ours in the corn-growing districts being double that. I would venture to propose to our gallant neighbours the complete conquest of the soil of France itself,—it being economically, a more glorious achievement to double the production on their own soil, than to double the area of their dominion by conquest, even if modern civilization allowed them to clear off existing owners and occupiers from the country conquered. The annual cost of the keep of two soldiers for a-year, would provide permanent works of water supply and drainage (including the substitution of water-closets for the pestilential cess-pools) for two houses,—would reduce the sickness and death-rate of the inmates by one-third. The expense of one year's keep of one-tenth of their army, or fifty thousand men, would render this permanent service to every house in Paris, and would annually save eight or ten thousand of the population of that metropolis from perishing by foul air diseases. So would the expense of two iron-clad steamers.

The Emperor has expressed strong wishes for the improvement of the sanitary condition of the population, but his wishes have not been properly seconded by executive officers or by the legislature. Forty per cent. of the population in France can neither read nor write, and are plunged in the darkest ignorance. The expense of keep of one soldier for one year would train and educate three children for life. The keep of one regiment of one thousand men for a-year, would serve as a foundation for the perpetual elementary physical and mental training of as many children. When we remember that upwards of three millions of men are withdrawn in the prime of life from productive industry, in Europe, at an annual direct charge of upwards of 2,600 millions of francs, as estimated by M. Block, or as estimated by the Baron Czernig at 816 millions of Austrian florins per annum, and when it is considered that the loss to productive industry must, as estimated, be an almost equivalent amount for the maintenance of mutually menacing forces, we may imagine from such dreadful waste, the vast gain to be derived from the prevalence of principles of economic science amongst peoples, and thence in governments.

The appointed time only enables me develop incompletely the rudimentary principles of economy which my investigations have led me to consider applicable to the labourer, treating him, as I promised, as an investment of capital. I shall have done something if I have

increased the conception of the value of the material which we possess as compared with other nations, and drawn attention to the conditions by which the productive power of that material and great source of national wealth is impaired, viz.,—the conditions unfavourable to his growth,—to his health,—to the amount and duration of his force,—to the waste of his power, from want of education and from misdirection, and from want of intelligent aptitudes—to the waste from over bodily work and under mental work, as well as from over mental work and under bodily work in the school period. These conditions may be modified or extended as economical conditions, but it will not be by meditations or abstract reasonings in the closet, but by direct observation in the field or in the workshop, by collecting the experience of leaders of industry, such as Mr. Whitworth and Mr. Fairbairn in the mechanical section; by collecting in Section D the observations of Professor Owen, and the other professors of physiology, which has an intimate connexion with economical science, in dealing with its source of force for production. Having made collections of facts from those sources, economic science and statistics will weigh, and enumerate, and give a money account of them. To those reverend professors and members of this Hall and University, by whose attendance we are honoured, I should have been glad to have submitted more fully the amount of aid they will derive from the concurrence of sound economic science, as developed by independent investigation, with those elementary principles of morals and religion which it is their province to maintain and advance. I might have shown at greater length, that indolence and filth and squalor always involve sin as well as waste, and that sin always involves economic waste; that the moral elements are always involved inextricably in the material the physical and the economical, and cannot be long advanced independently of them;—that, whilst for the purpose of investigation, it may be convenient to treat the economic apart from the moral elements, they must for the purpose of public instruction and most successful application, be regarded and treated in combination.

BRITISH ASSOCIATION, 1862.

THIRTY-SECOND Meeting of the BRITISH ASSOCIATION for the Advancement of Science, held at CAMBRIDGE, 1st—8th October, 1862.

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

President.—EDWIN CHADWICK, C.B.

Vice-Presidents.—Colonel Sykes, M.P., F.R.S.; William Tite, M.P., F.R.S.; Thomas Webster, M.A., F.R.S.; James Heywood, M.A., F.R.S.

Secretaries.—Edmund Maerory, M.A.; H. D. Macleod, B.A.

Committee.—Henry G. Bohn, F.R.G.S.; Rev. Dr. Booth, F.R.S.; C. H. Bracebridge; Samuel Brown; Dr. Camps, F.S.S.; Mayor of Cambridge; David Chadwick; Hepworth Dixon, F.S.A., F.R.G.S.; Rev. William Emery, B.D.; Dr. Farr, D.C.L., F.R.S.; Henry Fawcett, M.A.; William Felkin, F.L.S., F.S.S.; J. W. Gilbart, F.R.S.; S. Gregson, M.P.; F. W. Haddon; Professor Hennessey; Edwin Hill; Rev. Professor Kingsley, M.A.; G. D. Liveing, M.A.; M. H. Marsh, M.P.; Rev. W. N. Molesworth; Rev. William Monk, M.A.; Arthur Moore; Right Hon. Joseph Napier; Bishop of Natal; Alderman Neild; Frederick Purdy; Signor Quintino Sella; R. J. Spiers, F.S.A.; Thomas B. Sprague, F.I.A.; J. A. Turner, M.P., M.A.; Right Hon. S. Walpole, M.P.; Rev. Dr. Whewell, F.R.S.; Right Hon. J. Whiteside, M.P.; Robert Wilkinson, L.C.P.; Rev. H. B. Wilson, M.A.; Thomas Wilson, M.A.; Thomas M. Wright, F.S.A.

The following Papers occupied the attention of the Section:—

Thursday, 2nd October, 1862.

President's Address.

Rev. Vernon Harcourt, M.A.—Report of the Committee on Technical and Scientific Evidence in Courts of Law.

Charles M. Willich.—On Expectation of Life.

Rev. George Fisher, M.A., F.R.S.—On the Numerical Mode of Estimating Educational Qualifications, as pursued at the Greenwich Hospital School.

Friday, 3rd October, 1862.

Henry Fawcett, M.A.—On the Economic Effects of Recent Gold Discoveries.

Frederick Purdy.—On Local Taxation and Real Property.

W. T. Thornton.—On the Income Tax.

Richard Valpy.—The Tariffs and Trade of various Countries during the last Ten Years.

Dr. Watts.—On the Practicability of a Division of the Employers' Profits amongst the Workpeople.

Saturday, 4th October, 1862.

Frederick Purdy.—On the Pauperism and Mortality of Lancashire, &c.

J. C. Buckmaster.—On the Progress of Instruction in Elementary Science among the Industrial Classes, under the Science Minutes of the Departments of Science and Art.

James Heywood, F.R.S.—On Endowed Education and Oxford and Cambridge Fellowships.

Monday, 6th October, 1862.

Henry Dunning Macleod, B.A.—On the Definition and Nature of the Science of Political Economy.

Herman Merivale.—On the Utility of Colonization.

Dr. Smith.—A Statistical Inquiry into the prevalence of numerous Conditions affecting the Constitution of One Thousand Consumptive Persons when in Health.

Tuesday, 7th October, 1862.

The President.—On the Subject Matters and Methods of Competitive Examinations for the Public Service.

Rev. William Emery, B.D.—On the Expenses and Social Condition of University Education.

Henry Roberts, F.S.A.—Statistics which show the Increasing Circulation of a Pure and Instructive Literature adapted to the Capacities and the Means of the Labouring Population.

Rev. W. N. Molesworth, M.A.—On the Instruction and Training of the Unemployed in the Manufacturing Districts during the present Crisis.

W. Stanley Jevons, M.A.—Notice of a General Mathematical Theory of Political Economy.

W. Stanley Jevons, M.A.—On the Study of Periodic Commercial Fluctuations.

Edwin Hill.—On the Prevention of Crime.

Wednesday, 8th October, 1862.

David Chadwick.—The Cotton Famine and Substitutes for Cotton.

Henry Harben.—Some Statistics of *Zostera Marina* as a Substitute for Cotton.

MISCELLANEA.

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I.—*The Great Crises in the History of the Cotton Trade.*

WE obtain the following clear and useful summary from the October number of the *Exchange* (T. Low and Co.), a monthly magazine devoted to commercial topics—and so far carried on with marked ability:—

“ Throughout the whole of 1852, trade in the manufacturing districts was in a most prosperous condition; and, though the supplies of cotton were somewhat larger than the requirements of spinners, holders generally were very firm, and with a steady demand, obtained an advance of $\frac{7}{8}d.$ per lb. upon the low rates of December, 1851.

“ 1853 opened with good prospects and a steady demand for cotton. There was a tendency to advance in the spring, but the brewing of the Russo-Turkish question kept the market quiet. Towards the middle of the year, the falling off in the American receipts gave an upward impetus to prices, which continued until August ($6\frac{3}{4}d.$). In that month, the Eastern question becoming still further complicated, the advance was arrested, whilst later, on the stoppage of many mills at Preston, Wigan, Burnley, Bury, &c., in consequence of disputes between the operatives and their employers, added to the general distrust, and caused a decline of $\frac{1}{2}d.$ per lb., $6\frac{1}{4}d.$ being the average quotation during the remainder of the year.

“ 1854 opened with an impending war and a reduced American crop. These antagonistic influences neutralized each other, and prices suffered but very slight fluctuations during the first seven months of the year; but dear money, and the injurious effects of actual warfare in Europe, began to make themselves felt towards the autumn, and by the end of the year prices had declined fully $\frac{3}{4}d.$ per lb. ($5\frac{1}{2}d.$), whilst the stocks in the ports showed a decrease of about 90,000 bales as compared with December, 1853.

“ With money and food dear, and an expensive war on our hands, the year 1855 was ushered in amidst gloomy forebodings; but with a reduced stock and rumours of peace in consequence of the death of the Emperor of Russia, in March trade in Manchester brightened, and prices ran up to $7d.$ per lb. between March and June. From this out, a dear and capricious money market, the rate of discount being advanced to 5 per cent. in September and 6 per cent. in October, caused the trade to purchase very sparingly, and speculators to circumscribe their operations; and by the close of the year, fair bowds could be bought at $5\frac{3}{4}d.$ per lb., having touched $5\frac{3}{4}d.$ in November. Meanwhile, the stock of cotton had been reduced to a lower point than it had reached for many years previously.

“ Still, with the adverse influences above enumerated, 1856 opened with an

exceedingly dull market; but, with the commencement of peace, negotiations in January,—confidence returned, trade improved, and prices of cotton gradually advanced, closing at $7\frac{5}{8}d.$ in December, or $2d.$ per lb. higher than at the opening of the year. The upward movement continued throughout the first nine months of 1857, in consequence of the partial failure of the American crop. During the whole period, the value of money had been uniformly high; but with a flourishing trade in Manchester, and a rapidly declining stock in Liverpool, the cotton market seemed independent of all monetary considerations. In October (1857), fair uplands brought $9\frac{1}{2}d.$ per lb., and middling Orleans $9\frac{5}{8}d.$ At this juncture, the panic which had broken out in the United States, causing numerous bank suspensions and commercial failures, reached England, the money market was seriously disturbed, the bank rate was raised to 8 per cent., and general distrust ensued. About the middle of the month, the stoppage of the Liverpool Borough Bank produced an entire suspension of business, and sales of cotton were forced at a decline varying between $1d.$ and $1\frac{1}{2}d.$ per lb. In the course of the second week of November, the rate of discount was raised to 10 per cent., and the panic carried everything before it. The business done was the smallest transacted in any similar period since 1838, and a further decline of $1\frac{1}{2}d.$ per lb. was submitted to by sellers. The suspension of the Bank Act, on 12th November (1857), allayed the alarm to some extent, but the unfavourable financial advices from America, and the spread of the panic over Europe, prevented an immediate restoration of confidence; and the downward course of prices continued until early in December, when fair bowds could be purchased at $5\frac{1}{2}d.$ to $6d.$ per lb.—a decline of nearly $4d.$ per lb. from the currency of the first week of October. Some idea of the extent of the depression which had existed may be formed, when we state that for the last three months of the year, the purchases of spinners fell short of the amount of their average purchases during the previous year and nine months fully 300,000 bales. Towards the close of the year, with a reduction of the bank rate to 8 per cent. confidence began to make its appearance, more business was done, and $\frac{1}{2}d.$ to $\frac{3}{4}d.$ higher prices were current on 31st December, than at the commencement of the month.

"The improved feeling continued more or less throughout the year 1858. In January the bank rate was reduced to 6 per cent., and in February to 3 per cent.; and the imports of cotton being small, prices ran up to $8d.$, the highest point of the year. In March, the supplies were very large, and being placed on the market as soon as landed, prices declined about $1d.$ per lb.; thence to the end of the year, with an extraordinary demand for goods and yarns, especially for India and China, the variations in prices were only slight; fair uplands and middling Orleans closing at $7d.$ per lb. This year the increase in consumption was fully 14 per cent. upon that of 1857.

"1859 came in with exceedingly good prospects; a brisk trade in Manchester, a large American crop, cheap money, and abundance of food. Prices fluctuated between $6\frac{3}{4}d.$ and $7\frac{1}{2}d.$ per lb., closing at $7\frac{5}{8}d.$ in December. Thence to March, 1860, there was no change; but subsequently, with rapidly-increasing stocks, the total reaching 1,358,195 bales in June, a gradual decline set in, and continued until the end of July ($6\frac{3}{4}d.$); thence with a good demand from all classes of buyers, and adverse accounts as to the in-coming American crop, the fall, was more than recovered; the closing quotations of December being $7\frac{1}{2}d.$ per lb.

"1861 opened with a storm brewing in America, the end of which no one could then foresee, but which caused considerable anxiety as to the future supply of cotton. Still with a large present import, prices did not undergo any very material change during the first quarter of the year. But at the close of April the news of the fall of Fort Sumter was received, and consequently of the commencement of actual hostilities between North and South; then followed a rapid and continuous rise in prices until the middle of November, when fair uplands commanded $12\frac{3}{8}d.$, and middling Orleans $12d.$ per lb. For some weeks before this, 'short time' had been generally adopted by the trade, whereby the consumption was reduced about one-third; but the only effect produced on prices was to prevent a further advance. The market was quiet, but very sensitive—hence the panic which seized holders on

20th November, when the first news of the 'Trent' affair arrived. Sales were forced at a decline of from $1d.$ to $2d.$ per lb.; and even then the business done was exceedingly small. Towards the middle of December, the opinion gained ground that peace would be preserved, a renewed demand sprung up, and on 31st December middling Orleans were quoted once more $12d.$ per lb., and fair uplands $12\frac{1}{4}d.$ per lb., the advancing movement continued during the early part of January of the present year (1862), being further stimulated by the news of the liberation of Messrs. Mason and Slidell, received on the 8th; and on the 10th the descriptions just named were selling at $13\frac{5}{8}d.$ and $13\frac{3}{4}d.$ per lb. respectively.

"The rapid advance, however, was not responded to by the Manchester market, and the following fortnight a decline of $\frac{3}{4}d.$ to $\frac{1}{2}d.$ per lb. was submitted to by sellers. In March (1862), a further fall of $\frac{1}{2}d.$ took place (middling Orleans $12\frac{1}{4}d.$, fair uplands $12\frac{7}{8}d.$ per lb.); thence with the rapid reduction of the stock, and a better trade in Manchester, prices gradually improved (uplands $13\frac{3}{4}d.$, and Orleans $13\frac{1}{2}d.$ on 25th April). In the following week rumours of intervention on the part of England and France curtailed the inquiry, and prices fell $\frac{1}{4}d.$ per lb. Later on the Federal successes at Fort Donaldson, York Town, and New Orleans, added to the despondency of holders, and on 17th May, middling Orleans were sold as low as $11\frac{1}{2}d.$ per lb., being $1d.$ decline from the currency of the previous day. The reported surrounding of Richmond by the Federals, and the virtual defeat of the Confederates in consequence, led many to suppose that the close of the war was approaching; but more authentic intelligence showed that the determination to resist on the part of the South was as strong as ever; and as this idea gained currency, cotton advanced with rapid and uninterrupted strides until 18th July, when middling Orleans were quoted $18\frac{5}{8}d.$ per lb., and fair uplands $18\frac{1}{4}d.$ —the highest point they had reached since 1825. During the week ending 4th July, the advance was $2d.$ per lb. With the non-response of the Manchester market, and the accounts of Federal reverses before Richmond, the buoyancy of prices was arrested, and a slight reaction ensued."*

* "This brings us to the end of July. The reports for August and September will be found under the head 'Textiles and Textile Manufactures,' in our last and present numbers."

Import, Export, Consumption, Stock, and Average Prices of Cotton

Years.	Import (Bales).						Average Weight per Bale of Import.
	U. S.	Brazil.	Egyptian.	W. I.	E. I.	Total.	
lbs.							
1801.....	84	70	—	92	14	260	215
'02.....	107	75	—	91	8	281	215
'03.....	107	76	—	46	10	239	225
'04.....	104	48	—	86	4	242	254
'05.....	124	51	—	75	2	252	235
'06.....	125	52	—	78	8	263	217
'07.....	171	19	—	81	11	282	264
'08.....	38	50	—	67	13	168	260
'09.....	160	141	—	103	36	440	211
1810.....							
'10.....	247	143	—	92	79	561	236
'11.....	128	119	—	63	16	326	280
'12.....	95	99	—	64	3	261	242
'13.....	37	138	—	73	2	250	221
'14.....	48	152	—	74	14	288	210
'15.....	201	91	—	55	24	371	246
'16.....	166	123	—	49	31	369	256
'17.....	200	114	—	45	120	479	266
'18.....	208	162	—	51	248	669	263
'19.....	205	126	—	31	184	546	264
1820.....							
'20.....	302	181	—	31	58	572	249
'21.....	300	121	—	40	30	492	262
'22.....	330	143	—	41	19	533	267
'23.....	452	145	6	28	38	669	281
'24.....	282	143	38	26	51	540	266
'25.....	423	194	111	32	60	821	270
'26.....	396	55	48	18	65	582	295
'27.....	647	120	22	31	74	894	303
'28.....	444	167	33	20	85	749	293
'29.....	463	160	25	19	80	747	297
1830.....							
'30.....	618	191	15	12	35	871	300
'31.....	609	168	38	11	77	903	310
'32.....	629	115	41	8	109	902	319
'33.....	654	163	4	14	95	930	327
'34.....	734	104	7	17	89	951	337
'35.....	703	143	44	23	118	1,091	331
'36.....	765	149	35	33	219	1,201	342
'37.....	845	117	41	28	145	1,176	347
'38.....	1,025	138	30	29	107	1,439	350
'39.....	815	99	33	36	133	1,116	348
1840.....							
'40.....	1,238	83	38	22	216	1,599	365
'41.....	902	94	41	33	274	1,344	365
'42.....	1,013	87	20	17	256	1,393	379
'43.....	1,397	98	49	18	182	1,744	382
'44.....	1,247	113	67	17	238	1,682	383
'45.....	1,500	110	82	9	155	1,856	386
'46.....	932	84	60	9	49	1,134	386
'47.....	874	110	21	5	223	1,233	377
'48.....	1,375	100	29	8	228	1,740	395
'49.....	1,477	164	73	9	182	1,905	396

* Estimated, and inclusive of, the amount

from 1801 to 1861 (in 1000s of Bales,—thus 84 = 84,000).

Export.	Consumption.	Stock.*	Average Prices.			Years.
			Upland.	Pernam.	Surats.	
8	225	107	18	34	16	1801
16	240	132	16	30	14	'02
7	240	124	12	26	11 $\frac{1}{2}$	'03
2	245	119	14	26	11 $\frac{1}{2}$	'04
4	250	117	16 $\frac{1}{2}$	26	14 $\frac{1}{2}$	'05
3	270	107	18 $\frac{1}{2}$	22	14 $\frac{1}{2}$	'06
10	280	99	14 $\frac{1}{2}$	21	13	'07
8	210	57	22	23	19 $\frac{1}{2}$	'08
19	310	168	20	25	18 $\frac{1}{2}$	'09
38	340	351	15 $\frac{1}{2}$	22	15	1810
6	330	340	12 $\frac{1}{2}$	19	12	'11
9	326	286	16 $\frac{1}{2}$	22	14	'12
31	373	141	23	27	17 $\frac{1}{2}$	'13
26	315	87	29 $\frac{1}{2}$	31	21	'14
34	338	86	20 $\frac{1}{2}$	28	17	'15
29	337	116	18 $\frac{1}{2}$	26	15 $\frac{1}{2}$	'16
27	407	161	20 $\frac{1}{2}$	25	17	'17
55	423	352	20	25	15 $\frac{1}{2}$	'18
67	434	397	13 $\frac{1}{2}$	18 $\frac{1}{2}$	9 $\frac{1}{2}$	'19
28	467	473	11 $\frac{1}{2}$	15 $\frac{1}{2}$	8 $\frac{1}{2}$	1820
53	499	413	9 $\frac{1}{2}$	12 $\frac{1}{2}$	8 $\frac{1}{2}$	'21
59	545	342	8 $\frac{1}{2}$	11 $\frac{1}{2}$	6 $\frac{1}{2}$	'22
35	560	416	8 $\frac{1}{2}$	12	6 $\frac{1}{2}$	'23
54	605	297	8 $\frac{1}{2}$	11 $\frac{1}{2}$	6 $\frac{1}{2}$	'24
73	600	446	11 $\frac{1}{2}$	15 $\frac{1}{2}$	8 $\frac{1}{2}$	'25
95	511	422	6 $\frac{1}{2}$	10 $\frac{1}{2}$	5 $\frac{1}{2}$	'26
69	675	572	6 $\frac{1}{2}$	9 $\frac{1}{2}$	5 $\frac{1}{2}$	'27
64	732	526	6 $\frac{1}{2}$	8 $\frac{1}{2}$	4 $\frac{1}{2}$	'28
118	745	409	5 $\frac{1}{2}$	7 $\frac{1}{2}$	4	'29
33	832	415	6 $\frac{1}{2}$	8 $\frac{1}{2}$	5	1830
75	858	386	6	7 $\frac{1}{2}$	4 $\frac{1}{2}$	'31
67	891	330	6 $\frac{1}{2}$	9	5	'32
68	880	300	8 $\frac{1}{2}$	10 $\frac{1}{2}$	6 $\frac{1}{2}$	'33
87	919	245	8 $\frac{1}{2}$	11 $\frac{1}{2}$	6 $\frac{1}{2}$	'34
103	954	280	10 $\frac{1}{2}$	14 $\frac{1}{2}$	7 $\frac{1}{2}$	'35
106	1,011	364	9 $\frac{1}{2}$	12 $\frac{1}{2}$	6 $\frac{1}{2}$	'36
124	1,057	359	7	9 $\frac{1}{2}$	4 $\frac{1}{2}$	'37
103	1,206	471	7	9 $\frac{1}{2}$	5	'38
117	1,114	355	7 $\frac{1}{2}$	10	5 $\frac{1}{2}$	'39
120	1,251	584	6	9 $\frac{1}{2}$	4 $\frac{1}{2}$	1840
116	1,192	619	6<math			

Import, Export, Consumption, Stock, and Average

Years.	Import (Bales).						Average Weight per Bale of Import.
	U. S.	Brazil.	Egyptian.	W. I.	E. I.	Total.	
lbs.							
1850.....	1,184	172	79	6	308	1,749	392
'51.....	1,394	109	67	5	329	1,904	399
'52.....	1,789	144	190	13	221	2,357	392
'53.....	1,532	133	105	9	485	2,264	398
'54.....	1,666	107	81	10	308	2,172	408
'55.....	1,623	135	115	9	396	2,278	396
'56.....	1,758	123	113	11	463	2,468	414
'57.....	1,482	169	76	11	680	2,418	401
'58.....	1,863	106	106	6	361	2,442	420
'59.....	2,086	125	101	7	511	2,830	421
1860.....	2,581	103	109	10	563	3,366	424
'61.....	1,840	100	98	10	987	3,036	415

* Estimated, and inclusive of, the amount

1862.] Inconvertible Paper Issues in New York, in 1862. 533

Prices of Cotton from 1801 to 1861—Contd.

	Export.	Consumption.	Stock.*	Average Prices.			Years.
				Upland.	Pernam.	Surats.	
	272	1,514	622	d.	d.	d.	1850
	268	1,663	594	7 $\frac{1}{2}$	7 $\frac{1}{2}$	4	'51
	283	1,861	807	5 $\frac{1}{2}$	7	3 $\frac{1}{2}$	'52
	350	1,904	817	5 $\frac{1}{2}$	7	3 $\frac{1}{2}$	'53
	316	1,967	706	5 $\frac{1}{2}$	7	3 $\frac{1}{2}$	'54
	317	2,101	566	5 $\frac{1}{2}$	7	3 $\frac{1}{2}$	'55
	359	2,183	493	6	7 $\frac{1}{2}$	4 $\frac{1}{2}$	'56
	337	2,031	542	7 $\frac{1}{2}$	8 $\frac{1}{2}$	5 $\frac{1}{2}$	'57
	349	2,174	462	6 $\frac{1}{2}$	8 $\frac{1}{2}$	4 $\frac{1}{2}$	'58
	436	2,297	550	6 $\frac{1}{2}$	8 $\frac{1}{2}$	4 $\frac{1}{2}$	'59
	608	3,523	794	5 $\frac{1}{2}$	8 $\frac{1}{2}$	4 $\frac{1}{2}$	1860
	677	2,364	789	7 $\frac{1}{2}$	9 $\frac{1}{2}$	5 $\frac{1}{2}$	'61

held by manufacturers in the interior.

II.—Effects of Inconvertible Paper Issues in New York, in November, 1862.

THE two following paragraphs from leading journals in New York, will indicate the kind of financial difficulties which are there presenting themselves. Unless some speedy remedy be applied, it is probable that the worst mischiefs of the *Assignats* will be repeated in the Northern States:—

"To say that gold has risen to 33 per cent. premium, is a pleasant way of stating that paper money has depreciated 33 per cent. Practically, in their conversation and reports, the Wall-street financiers make paper the standard, and talk as if gold had risen above the standard. The fact is, as they and everybody else know, that gold is the standard, and that paper has fallen below this standard and is at a large discount. In a word, the one dollar bill you have in your portemonnaie is worth, according to yesterday's quotations, only 67c. That information affects you in quite a different way from the stereotyped announcement that gold has risen. You do not care how high gold may rise so long as your bank bills are at par. The delicate sophism of the money changers leads you to forget that it is not gold that rises, but paper money that falls. Every time that the premium on gold increases, the bills in your pocket lose in value. Your riches, if they happen to be in paper money, take to themselves wings, and fly away in spite of you. You find that the prices of coal, of flour, of butter, of dry goods, of clothing, of all the common necessities of life, also rise with gold. The main secret of this rise is that the merchants with whom you deal can only give you 67c.-worth of articles for your dollar bill, worth only 67c.; and so they raise their prices in order to balance the discount on paper. If you can afford to hold on to your bills till the war is over, they may regain their original value. If you must part with them now—and nearly every one must—then you are certain to suffer. It being understood, therefore, that the rise in gold is really a depreciation in the value of paper, the people inquire who is responsible for this great depreciation. We answer, Secretary Chase and the present Congress. The Treasury Department has been most grossly mismanaged. Secretary Chase had a sound system of finance prepared for him by

practical men, but he does not know how to manage it. If the system now in operation had been properly carried out, paper could not have depreciated more than 8 per cent. by this time. There is nothing either in the condition of the country or the position of our armies, to justify the present large depreciation. If the war had been weighing upon us for ten years, and our prospects of success were still doubtful, then there might be some excuse for such a premium on gold. But the war has lasted but a year and a-half, and its fortunes are indisputably in our favour, and still, on the very days that great Union victories are announced, the premium on gold increases. Clearly, then, there is mismanagement in the Treasury Department. If Secretary Chase had pressed upon Congress at the opening of its last Session the immediate necessity of a Tax Bill, and had followed this up by a Tariff Bill, a Bankrupt Bill, and a Bill taxing local banks, we should have had none of this trouble, and the legal tender notes would now be but little, if at all, depreciated. Instead of this, Secretary Chase seemed contented with the passage of the Acts authorizing the issue of legal tender notes. The Tariff Bill was passed sometime later. The Bankrupt Bill and the Bill of taxing banks were not passed at all. The Tax Bill was at last forced upon the stupid, timid, ignorant Congressmen, by public opinion speaking through the unanimous press. In the meantime Secretary Chase devoted himself to interfering with the War Department, intriguing for and against our Generals, and organizing a Radical Abolition political party, with a view to the next Presidency. The Bills for supporting and maintaining his legal tender currency were postponed. The Confiscation and Emancipation Bill engrossed his whole attention. Even at this late day the application of the Tax Bill is delayed, as the military draught has been, for fear of influencing the elections. This is sacrificing the nation to a party most remorselessly. It is not too late to remedy all this, however. The example of William Pitt, who carried England through a long war by a judicious system of taxation, loans, and legal tender currency, should be studied attentively by Secretary Chase. Let the Tax Bill be enforced so as to supply the Government with money, and, with the Tariff Bill, form the basis of the currency. Then let Congress at its next Session, pass a Bill taxing banks, so as to restrict the bank circulation, and thus

prevent the country being deluged with two kinds of paper money—that of the Government and that of the local banks. Then let a Bankrupt Bill be passed to liberate those of our business men who have their hands tied by old debts resulting from former failures. This done—and with the ordinary chances of war in our favour—the premium upon gold can be reduced to at least 5 per cent. If Secretary Chase were to retire from the Cabinet, and give place to a better financier, this result would be indubitably hastened.”—*New York Herald*.

“Mr. Secretary Chase has succeeded by means of his financial measures in arraying against each other great interests of the country which have heretofore been in harmony, and have by a happy accord developed its resources. In consequence of the vast issues of paper money by the Treasury Department of the General Government, the currency has become so inflated, that real distress is threatened to the working classes through the enormous advance in price of the necessities of life. This great evil can only be avoided by restricting or annihilating the circulating notes of the banks authorized by the laws of the several States. Thus the great industrial interests of the country, or banking institutions which have become established under a policy that has prevailed for twenty-five years, must go to the wall. All experience demonstrates that labour is the last to advance in price, and the first to fall; and although the battle field has destroyed a large proportion of the labouring strength of the North, such is the crippled condition to which the enormous exactions of the tax law have reduced manufactures, that no advance in wages can be looked for. It is therefore undeniably necessary, in order to preserve the equilibrium between the wages of labour and the price of the necessities of life, and protect our manufactures from blight, that measures shall be immediately taken to reduce and restrict the volume of the currency. *The prices of merchandize of all descriptions, are from 25 to 50 per cent. higher than one year ago, and cotton goods have advanced from 100 to 200 per cent.* There has in the meantime been no appreciable advance in the wages of labour, and manufacturers encounter a burden which no tariff can lighten. Ten hundred dollars a year ago was equal to \$1,400 of paper money to-day, and the speculative feeling to which the inflated currency has given rise, has contributed to the unfavourable turn against industrial interests. Mr. Chase has already partially developed what will be his policy in this emergency. He will probably open a war upon the bank circulation of the country, and use the distress among the labouring and manufacturing classes to promote his ends. We expect to see Congress asked to pass a law limiting the issue of bank notes within very narrow limits. Such a measure would be fatal to at least one-half of the banking institutions of the country. The provincial banks largely depend upon the profits of their circulation, and if this be prohibited they will have no alternative but to wind up. The stronger banks of the large cities would not suffer materially from this measure; some of them would probably profit by it. The whole tendency of the times is to strengthen the strong and weaken or destroy the weak. But it is difficult to form a just conception of the financial upturning which would be caused in the villages and minor towns. But what can he do? Universal distress will follow, unless something be done to limit the paper currency of the country. Gold and exchange are advancing with great rapidity, and rates are already ruinous. Gold is being shipped from the country in millions, the value of the paper currency is changing daily from extended issues, and a ruinous inflation of all prices, except those which represent the substantial riches of the country, is seen on all sides. The only remedy is in a restriction of the paper issues used as money, however that may be accomplished. We trust Mr. Chase sees clearly the nature of the dilemma into which he has brought the finances of the country, and that he will have the wisdom to apply a thorough and effective remedy before we are overwhelmed in financial if we escape political ruin.”—*New York World*.

III.—*The Distress and the Resources of Lancashire, 1862. Comparative Poor Rate Expenditure, Seventeen Years, 1842-3 to 1859-60.*

THE following useful statement is from the *Times* of 13th November, 1862:—

“Two questions have been sometimes asked of late; they will be more frequently asked before long:—‘To what extent has the property of Lancashire, liable at law to the charge of relieving the destitute poor, been burdened by the present distress in her cotton manufacturing districts?’ And, ‘In what degree has the fiscal pressure in that county exceeded, or is it likely to exceed, that ordinarily borne in other parts of England for the maintenance of the poor?’

“The open advocacy of a claim upon the Consolidated Fund for a grant in aid to Lancashire that takes the case of the Irish famine as precedent and warranty, with other reasons in support, must force investigation upon the public and render comparisons inevitable. As a preliminary attempt to render in outline a special branch of the comparative economics of our great manufacturing county, we will institute a parallel between it and a south-western district of the same amount of population.

“In the south-west we have a group of seven contiguous counties—Hants, Berks, Wilts, Dorset, Somerset, Devon, and Cornwall—with an aggregate population but slightly exceeding that of Lancashire. The last census assigns 2,498,000 persons to the county group, and 2,429,000 to the county. These numbers are sufficiently close for the purposes of the comparison.

“In the decennium which ended in April, 1861, Lancashire recruited her numbers largely; and the south-western district moderately. The former had increased by 398,000, and the latter by 118,000 persons.

“In the seventeen years ending 1860—and this term is taken for a reason which will be hereafter apparent—the south-western group expended in the relief and maintenance of its poor, a total sum of 15,313,983*l.*; and Lancashire for the same purpose, 6,910,761*l.* The disbursements of the former districts exceeded those of the latter by 120 per cent. The rateable property of the south-western counties has borne annually a heavier pressure by 120 per cent. than that to which Lancashire has been subjected. In amount Lancashire has had 8,373,000*l.* less poor rate to pay than the south-west, with an equal population. More than *eight millions* have been left in the hands of the Lancashire rate-payers by not being required for the poor. This large sum, which would, under a pauper pressure like that of the south-west, have been spent unproductively, has, by the happier circumstances of Lancashire, been applicable to trade and manufactures. Can we suppose that *eight millions* in the hands of the energetic and commercially astute men of the north did not appreciably assist in placing the great cotton county in the foremost rank of industrial England by right of its vast realized property?

“The best, indeed the only measure we possess of the *value of Real property* in this country, is the assessment made by the Inland Revenue Commissioners for the collection of the property tax under Schedule A. These accounts, though they may be found for every year in Parliamentary blue-books or other official papers, in respect of the whole kingdom, have only been twice issued for separate counties since the imposition of the tax by the late Sir Robert Peel. The county statements are for the financial years 1842-3 and 1859-60. In this interval of seventeen years, the same which we have taken for a comparison of the poor-rate expenditure, Lancashire rose from a rental of 7,498,512*l.* to 11,453,851*l.*; and the south-western group from 11,904,939*l.* to 12,990,274*l.* Lancashire augmented her realty by 3,955,339*l.* or 53 per cent.; the seven selected counties by 1,085,335*l.* or 9 per cent. The Lancashire rate of increase was, therefore nearly *sixfold* that of the south-west.

“The property subject to *income tax* assessment under Schedule A, is very nearly identical with that upon which the *poor-rates* are incident. It comes into

the overseer's rate-books nearly in its entirety, and is there tributary to the wants of the poor according to its annual 'rateable value.' *But overseer's 'rateable value,' is a worthless standard of comparison.* This is well known, and the Parochial Assessments Act of last session is the legislative recognition of the fact.

"The uncertain scale of rateable value compels us to employ the property tax returns as the best medium for ascertaining the relative burden of the poor-rates in different localities. If we were in possession of the valuations under Schedule A in each county, and for each of the seventeen years, then a very exact comparison of the pressure of the rates in Lancashire could be instituted with the burden in the south-west during the whole period. Failing that, we take the valuations for 1843 and 1860, and employ the mean of the two sums as representative of the average valuation for each of the seventeen years.

"The mean valuation of Lancashire by this process is seen to be 9,476,031*l.*, and that of the seven counties 12,197,606*l.*

"But during the same time the average annual expenditure of Lancashire for relief to the poor was 408,280*l.*, and the average of the counties 900,822*l.* Relief pressed upon property in Lancashire in the ratio of 10*1/4* *d.* in the pound, and in the south-west in the ratio of 1*s.* 5*1/4* *d.* Hence, in this aspect, Lancashire was less weighted by 7*d.* in the pound—that is, by 40 per cent.

"A load is burdensome in the proportion of its weight to the strength of the bearer. The load may be increased a hundredfold; but if the support have a similar accession of power we acknowledge no augmentation of burden.

"Lancashire, with her thousands but recently added to the pauper roll, may appear, in the imagination of some people, quite unable to support an amount of pressure which many places in England bear, and have borne for years, without exhaustion, or, indeed, any very serious detriment.

"A Parliamentary blue-book informs us that in 1856 the manufacturing unions of Hinckley and Leicester paid for relief to the poor respectively 3*s.* 3*3/4* *d.* and 3*s.* 3*1/4* *d.* on their rateable property; that in the East London Union the rate was 3*s.* 5*1/4* *d.*, and in the West London Union, 3*s.* 7*1/4* *d.*, in the pound. In the city of Norwich it was 4*s.* 6*3/4* *d.* The year in question was marked by no peculiar depression in any of these places, and in some of them the rates they have since sustained are still higher.

"The trade profits of Lancashire have been immense. In 1860 they constituted nearly *one-fifth* of the entire amount classed under that head for all England. The aggregate assessment of that year in respect of real property, farmers' and trade profits, was 27,169,000*l.* Of this large sum, however, only that which represents the real property is liable to be rated.

"In the present distress considerable amounts of property apparently escape the levy of the collector by reason of the poverty of the occupier. A false inference is easily drawn from the way in which this is often stated. It is said, for example, that 'one-third of the ratepayers' in a township can no longer pay their rates in consequence of the distress, and it is inferred very erroneously that one-third of the rateable value is withdrawn from the levy. But *one-third* of the ratepayers may not occupy *one-tenth* in value of the township property. According to statistics given in evidence before Earl Grey's Select Committee in 1860, fully *one-third* of the ratepayers in the borough of Salford might be excused their rates, yet the total assessment be only reduced in amount by *one-thirteenth*, or less. This arises from the large number of ratepayers in that borough; and it is equally true of other towns in the county where the ratepayers occupy houses under a rental of 5*l.* or 6*l.*

"After making liberal, not to say extravagant allowance, for excusals on account of poverty, we shall find that Lancashire possesses *eight millions* of assessable property legally and directly contributory to the poor relief fund. Regarding the whole county as one union, a rate of 1*s.* 3*d.* in the pound would yield for the three winter months 40,000*l.* per week. This rate, high as it appears when applied to Lancashire, is nevertheless short of that paid last year by Norwich and some other places in the south.

"The tendency of the rate in Aid Act, is to throw the whole county of

Lancaster into one Union for rating. Any union having attained to an expenditure over 1*s.* 3*d.* in the pound for a quarter of a year has a right to place the excess, with certain limitations, on the county at large. A rate of 1*s.* 3*d.* or 1*s.* 6*d.* for one quarter, or for two, appears no very exorbitant demand upon the resources of Lancashire, to form, with the contributions of private charity, a sufficient assurance fund for her poor operatives against hunger, cold, and disease. Withhold the assurance or grant it niggardly—her artisans are lost, or they are dispersed for ever; the huge factory and its cunningly formed machinery are worthless lumber; and the ploughboy may again whistle o'er the very spot where but now was heard the whirring of a thousand wheels. Such a picture can only be the momentary play of fancy. Lancashire will not let her manufacturing supremacy be but a page in history. Events have cast a heavy and, for a time, an increasing burden on her shoulders; they have also endowed her with a giant's strength to bear the load."

IV.—Emigration, 1815-61.

The following table circulated by the "Colonial Emigration Society," will illustrate Mr. Merivale's, p. 491 *ante.*

Years.	United States.	North American Colonies.	Australia and New Zealand Colonies.	All other Places.	Total.
1815-16....	780,048	746,163	124,342	21,603	1,672,156
'47	142,154	109,680	4,949	1,487	258,270
'48	188,233	31,065	23,904	4,887	248,089
'49	219,450	41,367	32,191	6,490	299,498
'50	223,078	32,961	16,037	8,773	280,849
1851	267,357	42,605	21,532	4,472	335,966
'52	244,261	32,873	87,881	3,749	368,764
'53	230,885	34,522	61,401	3,129	329,937
'54	193,065	43,761	83,237	3,366	323,429
'55	103,414	17,966	52,309	3,118	176,807
1856	111,837	16,378	44,584	3,755	176,554
'57	126,905	21,001	61,248	3,721	212,875
'58	59,716	9,704	39,295	5,257	113,972
'59	70,303	6,689	31,013	12,427	120,432
'60	87,500	9,786	24,302	6,881	128,469
'61	49,764	12,707	23,738	5,561	91,770
Total	3,097,970	1,209,228	731,963	98,676	5,137,837

Note.—Total Emigration to British Colonies, 2,039,867.

" United States, 3,097,970.

V.—Quinquennial Analysis of the Transactions of the Metropolitan Joint Stock Banks.

Years.	Banks and Founded.	Number of Shares.	Amount of each Share.	Capital.		Amount of Current and Deposit Accounts.
				Subscribed 30th June, 1862.	Paid up 30th June, 1862.	
1852	London and Westminster (1834)	50,000	100	5,000,000	1,000,000	5,581,706
'57						13,913,058
'62						14,353,031
1852	London Joint Stock (1836)	60,000	50	3,000,000	600,000	3,591,506
'57						10,698,530
'62						11,304,158
1852	Union Bank of London (1839)	60,000	50	3,000,000	720,000	4,268,438
'57						10,874,610
'62						11,415,319
1852	London and County (1836)	30,000	50	1,500,000	571,895	3,281,603
'57						3,857,281
'62						7,702,170
1857	City Bank (1855)	6,000	100	600,000	300,000	1,248,191
'62						3,449,539
1857	Bank of London (1855)	6,000	100	600,000	300,000	1,205,006
'62						2,254,540

Years.	Banks and Founded.	Reserved Fund.	Net Profits.	Amount of Dividend and Bonus.	Dividends and Bonus.	Amount Paid per Share.	Present Market Value per Share.	Premium.
1852	London and Westminster (1834)	£ 109,164	£ 85,012	£ 80,000	8	£ 20	£ 78	Pr. cent. 290
'57		150,000	188,776	180,000	12			
'62		250,000	244,513	220,000	22			
1852	London Joint Stock (1836)	146,613	62,278	57,000	9½	10	38	240
'57		168,421	163,698	151,000	25½			
'62		249,525	161,583	135,000	22½			
1852	Union Bank of London (1839)	50,000	38,171	29,603	7	12	33	175
'57		135,000	136,226	120,000	20			
'62		50,000	163,895	81,000	11½			
1852	London and County (1836)	39,064	30,225	25,550	8	20	36	80
'57		100,000	58,057	54,744	11			
'62		175,000	84,411	69,073	12½			
1857	City Bank (1855)	10,000	18,675	13,500	6	50	90	80
'62		60,000	37,850	30,000	10			
1857	Bank of London (1855)	8,320	10,718	7,500	2½	50	86	72
'62		55,000	46,548	21,000	7			

Note.—In addition to the above, the following joint stock banks transact business in London, viz., the Agra and United Service Bank, established 1833, with a paid-up capital of 1,000,000*l.*, and a reserved fund of 200,000*l.*; the Alliance, London and Liverpool, established 1862, subscribed capital 2,000,000*l.*, paid-up 240,000*l.*; London and Middlesex, established 1862, subscribed capital 1,000,000*l.*, paid-up 20,000*l.*; Metropolitan and Provincial, established 1861, subscribed capital 1,000,000*l.*, paid-up 200,000*l.*; The National Bank, established 1835, paid-up capital 500,000*l.*, reserved fund, 181,931*l.*; Unity Banking Association, established 1855, paid-up capital 179,195*l.*; West-End Joint Stock Bank, established 1861, nominal capital 500,000*l.*

ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN
OF THEMARRIAGES IN ENGLAND AND WALES DURING THE SECOND QUARTER
(APRIL—JUNE) OF 1862, AND OF THE BIRTHS AND DEATHS
DURING THE THIRD QUARTER (JULY—SEPTEMBER) OF 1862.

THIS Return comprises the BIRTHS and DEATHS registered by 2,199 Registrars in all the districts of England during the summer quarter that ended on September 30th, 1862; and the MARRIAGES in 12,585 churches or chapels, about 4,672 registered places of worship unconnected with the Established Church, and 637 Superintendent Registrars' offices, in the quarter that ended on June 30th, 1862.

Marriages were not numerous in the spring quarter of this year. During a period of eighteen months, embracing the whole of 1861, and the earlier half of the current year, the marriage-rate was low, and the concluding three months exhibited a remarkable inactivity of the rate at which new families are formed. But the birth-rate was well maintained in the last summer quarter, and in each quarterly period during the last eighteen months children were born in a number exceeding the average. It is still more satisfactory to add that the health of last summer was unusually good. The death-rate has not risen above its average in any quarter of the year, since June, in 1860.

MARRIAGES.—The total number of marriages in the spring quarter of 1860, was nearly 44,000; in that of 1861, it was about 42,000; and in the same quarter of the present year it fell to 40,771.

ENGLAND:—MARRIAGES, BIRTHS, and DEATHS, returned in the Years 1856-62, and in the QUARTERS of those Years.

Calendar Years, 1856-62:—Numbers.

Years	'62.	'61.	'60.	'59.	'58.	'57.	'56.
Marriages No.	—	163,745	170,156	167,723	156,070	159,097	159,337
Births	—	695,562	684,048	689,881	655,481	663,071	657,453
Deaths	—	435,337	422,721	440,781	449,656	419,815	390,506

QUARTERS of each Calendar Year 1856-62.

(I.) MARRIAGES:—Numbers.

Qrs. ended last day of	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March	No. 33,976	33,401	35,150	35,382	29,918	33,321	33,427
June	40,771	41,966	43,777	42,042	39,890	41,267	38,820
Septmbr.	—	39,892	40,541	39,803	38,599	38,669	39,089
Decembr.	—	48,486	50,688	50,496	47,663	45,840	48,001

QUARTERS of each Calendar Year, 1856-62.

(II.) BIRTHS:—Numbers.

Qrs. ended last day of	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March No.	182,005	173,170	183,180	175,532	170,959	170,430	169,250
June ,	185,638	184,718	174,028	175,864	169,115	170,444	173,263
Septmbr. ,	172,237	171,500	164,121	168,394	157,445	161,181	157,462
Decmbr. ,	—	166,174	162,719	170,091	157,962	161,016	157,478

(III.) DEATHS:—Numbers.

Qrs. ended last day of	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March No.	122,192	121,713	122,617	121,580	125,819	108,665	103,014
June ,	107,555	107,721	110,869	105,631	107,142	100,046	100,099
Septmbr. ,	92,225	100,986	86,312	104,216	98,142	100,528	91,155
Decmbr. ,	—	104,917	102,923	109,354	118,553	110,576	96,238

The annual marriage-rate in the spring quarter of this year, viz., persons married to a hundred in the population, was 1.610. This proportion is lower than any result obtained in the same season during an extended series of years, for in the ten years 1852-61 it fell to its lowest point, which was 1.638, in 1856; and the average of the whole series is 1.709.

It will be seen that the *whole of England and Wales*, for the metropolis hardly constitutes an exception to the rule, has been affected more or less in its different parts by the operation of circumstances *unfavourable to marriage*, and that in the eighth division (comprising Lancashire and Cheshire) which in its present state of adversity will first excite attention in the observation of results that are to be obtained from the tables, the *decrease* of marriages is more striking than it is in any other of the groups of counties which form the eleven divisions. It may be remembered that a decrease of marriages in the cotton manufacturing districts in the first quarter of the year, was mentioned in the last Quarterly Report.

ENGLAND:—Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1856-62, and the QUARTERS of those Years.

Calendar YEARS, 1856-62:—General Percentage Results.

YEARS	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
Estmtd. Popn. of England in thousands in middle of each Year....	20,341	—	20,119	19,903	19,687	19,471	19,257	19,043
Persons Mar- ried Per ct.	—	1.684	1.628	1.710	1.704	1.604	1.652	1.674
Births ,	—	3.426	3.457	3.437	3.504	3.366	3.443	3.453
Deaths.... ,	—	2.221	2.164	2.124	2.239	2.309	2.180	2.051

QUARTERS of each Calendar Year, 1856-62.

(I.) PERSONS MARRIED:—Percentages.

Qrs. ended last day of	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March.... Per ct.	1.360	1.405	1.352	1.422	1.464	1.252	1.410	1.414
June..... ,	1.610	1.709	1.676	1.766	1.716	1.646	1.722	1.638
Septmbr. ,	—	1.616	1.572	1.614	1.602	1.570	1.592	1.626
Decmbr. ,	—	1.991	1.904	2.012	2.026	1.934	1.880	1.992

(II.) BIRTHS:—Percentages.

Qrs. ended last day of	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March.... Per ct.	3.644	3.588	3.505	3.707	3.631	3.576	3.604	3.580
June ,	3.666	3.571	3.687	3.512	3.588	3.488	3.555	3.655
Septmbr. ,	3.356	3.285	3.377	3.267	3.389	3.204	3.316	3.276
Decmbr. ,	—	3.231	3.264	3.230	3.414	3.205	3.304	3.267

(III.) DEATHS:—Percentages.

Qrs. ended last day of	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March.... Per ct.	2.447	2.489	2.463	2.481	2.515	2.631	2.298	2.179
June..... ,	2.124	2.201	2.150	2.237	2.155	2.210	2.087	2.111
Septmbr. ,	1.797	2.020	1.989	1.718	2.097	1.997	2.068	1.896
Decmbr. ,	—	2.171	2.061	2.043	2.195	2.406	2.269	1.997

In the three spring quarters of 1860-2 (ending 30th June), the marriages in Cheshire numbered respectively 993, 941, 917; those in Lancashire in the same times were 6,331, 6,126, and 5,484. By comparing the marriages in both counties, the number in last spring with the mean of the number in two preceding springs, it is found that the *decrease* is equal to 12.4 per cent.

By a similar mode of comparison the next greatest decrease occurred in the Eastern Counties, Essex, Suffolk, and Norfolk, where it was 9.9 per cent. Sussex may be mentioned as an example of a single county in which there was a decrease of equal amount.

The decrease in Monmouthshire and Wales was 6.4 per cent.; in Yorkshire it was 4.1. The Northern Counties also show a decrease, but it was less than 1 per cent. London stands alone in the eleven divisions as presenting an example of increase, but as this was only 1 per cent. in an ever-growing population, the marriage-rate even in the metropolis was not unusually brisk.

The decrease in the marriages of all England was 5.2 per cent.; and it may be inferred from the above facts that a large portion of that class of the population by which families are established did not consider that their circumstances justified the formation of fresh alliances. Lancashire in its season of calamity has borne

witness to the operation of a law of prudence which has not been without its effect in most of the other parts of the kingdom.

Lancashire is divided into twenty-six districts, and of these there appears to have been in West Derby alone a continuous increase of marriages in three June quarters (1860-2); the numbers in that district were 375, 434, 460. The numbers as returned by some of the more important districts, and showing a decrease, may be stated,—Liverpool, 1,058, 997, 968; Prescot, 137, 139, 126; Wigan, 198, 223, 174; Bury, 226, 223, 185; Salford, 161, 159, 148; Manchester, 1,245, 1,163, 1,054; Ashton, 352, 284, 219; Oldham, 207, 238, 192; Haslingden, 167, 173, 145; Burnley, 166, 159, 141; Blackburn, 346, 318, 200; Chorley, 95, 88, 67; Preston, 325, 289, 213.

The returns of Ashton, Blackburn, and Preston may be selected from the list as signal instances of the marriage-rate being depressed when *hard times* have fallen on the industry of a people.

BIRTHS.—The total number of *births* in the quarter that ended 30th September was 172,237. It showed an increase of 4,427 above the mean of two previous summer quarters (1860-1). The birth-rate was 3.356 per cent. of the population, against an average of 3.285 in ten corresponding quarters (1852-61).

In Cheshire and Lancashire the numbers of children born in three summer quarters were 25,691 in 1860; 27,184 in 1861; and 27,984 in 1862. The last number as compared with the mean of the two previous numbers represents an excess of 5.9 per cent. This *increase is higher* than that shown by any other of the groups of counties distinguished as the "Eleven Divisions." This fact is the more remarkable, because it is probable that not a few of the industrial population had left their homes for Yorkshire and other parts in quest of work, and that comparatively few persons arrived to settle in the districts of the cotton manufacture; while it can be shown that in other parts where the population increases even more rapidly, the increase of births was less than it was in Lancashire; as, for example, in the Northern Division the births increased only 2.7 per cent., and in London less than 1 per cent. The increase which was next to that of Cheshire and Lancashire, and was nearly as great, occurred in the Welsh Division.

Though London contains 300,000 more people than Lancashire, the number of children born in the former was less than that of the births returned by the latter. The respective numbers were 22,984 and 23,729.

INCREASE OF POPULATION.—The excess of births over deaths in the last quarter was 80,012. The natural increase of the population was therefore at the rate of 870 daily. As the stream rises, part of it overflows into other regions of the globe.

The number of *emigrants* to all parts who left ports in the United Kingdom, where there are emigration officers, in the three months that ended 30th September, was 33,240; and in this number the English emigrants may be stated approximately as 12,866. The emigration to the Australian Colonies has much increased; the English, Irish, Scotch, and others who went thither last quarter was 12,071; in either of the two previous summers they were little more than 7,000. British North America also drew a larger company. The number who sought the United States was 14,170, the number in the same quarter of 1860 having been 21,104, and in that of the following year 6,348. Of the 12,866 English who emigrated about 5,255 went to the United States, and 6,536 to the Australian colonies.

PRICES, THE WEATHER, AND PAUPERISM.—The average price of consols was 93 $\frac{1}{2}$; it has been above 93 in the four quarters that have elapsed since September of last year. *Wheat* (the average price 56s. 10d. per quarter) was dearer than in the same period of last year, when the price was 52s. 1d. The average of the highest and lowest prices of *beef* at Leadenhall and Newgate was 5 $\frac{1}{4}$ d. per lb.; and of mutton 6 $\frac{1}{2}$ d. *Best potatoes* were 115s. per ton; they were dearer than they had been at the same time last year.

The *mean temperature* of the air at Greenwich was 58 $^{\circ}$ 7, which is 1 $^{\circ}$ 3 below the average of the same three months in twenty-one years. The coldness of the season would have ranged still higher in meteorological notation, but that warmer

weather in the latter half of September modified the final result. Mr. Glaisher writes (see Appendix which contains observations made at numerous stations) that "the cold weather which set in on the 9th June, continued with trifling exceptions till the 12th September. Within this long period of ninety-six days there were only twelve days on which the temperature reached or exceeded its average value." During the last eighteen days of September the weather was warm. The mean temperature of *July* was lower than that of the same month in any year since 1841, with the exception of 1860. The mean temperature of *August* was lower than that of the same month in any year since 1845, with the exception of 1860. The mean temperature of *September* was nearly one degree above the average. The atmosphere was humid throughout the summer. The fall of rain was 6 $^{\circ}$ 3 inches, the half of which was in August; but though the last-mentioned month was wet, the total fall in the quarter was not excessive.

Much rain fell in the northern counties; as much as six inches in August at Alnwick and North Shields. At Manchester the fall in the three months was almost 12 inches. In some of the reports of registrars in Lancashire the weather is stated to have been mild, and conducive to health.

The returns of the Poor Law Commissioners are heavy for the summer quarter. The increase of pauperism is seen in the following statement, which shows the quarterly average of poor persons relieved on the last day of each week:—

Quarter ending 30th September, 1860; In-door, 101,680; Out-door, 667,680.			
"	1861;	" 112,932;	" 693,649.
"	1862;	" 119,592;	" 789,914.

THE MORTALITY, AND THE STATE OF THE PUBLIC HEALTH.—The total number of deaths in the three months that ended 30th September was 92,225. In the same quarter of 1860, it did not much exceed 86,000; in that of 1861 it was about 101,000. The cold summer of this year was less healthy than the still colder summer of 1860; but it was healthier than the warmer summer of last year. A cold winter makes frequent funerals; it cuts off quickly the old and infirm; but it may be admitted amongst ascertained facts that a *cold summer* with rain enough to wash and sweeten the earth and air is *favourable to health*, and especially to the health of children. The weather which the farmer most desires for his harvest operations is not the most salubrious for the people who are to be afterwards fed with his produce. It is the business of sanitary science to assist in reconciling these separate interests.

The annual rate of mortality in the quarter was 1.797 per cent. of the population against an average derived from ten summers (1852-61) of 2.020 per cent. In these ten summers there is but a single example of *so low a death-rate*, viz., that furnished by 1860, which was 1.718. Even in summer which is the healthiest season of the year, the mortality of all England is seldom so low as 1.9 per cent.

But the *country districts* apart from the towns testify as usual to the benefit which they derive from "country air," for their rate of mortality was 1.586 (the average being 1.747); whilst in urban populations it was 2.011 (the average being 2.328). The causes, meteorological or of whatever kind they may have been, which exerted a wholesome influence on the population generally, saved in the country, in every 10,000 persons, sixteen lives, which would have been lost in a season when the mortality was near its average; and in the *towns* the saving was double that amount, namely thirty-two lives in an equal number (10,000) of the population. The remark is obvious enough, but it may be excused because it is in accordance with the facts stated, that if there is dirt to be removed by water, or miasms to be checked by cold, the part where such nuisances most abound will be most benefited by the destruction or removal of them.

Though the rate of mortality of town districts in the aggregate was 2.01 per cent., in many towns it was much higher. To take a few instances: in London it was 2.09; in Liverpool, 3.12; in Manchester, 2.40; in Sheffield, 2.47; in Leeds 2.75; and in Rotherham, 2.76.

The mortality of the North-western counties (Lancashire and Cheshire), which is always high, was last quarter *not quite so high* as that of London, and it was not much higher than that of Yorkshire. In the last-mentioned division the death-rate was 1.98 per cent.; in Lancashire and Cheshire 2.02; in London 2.09. The Northern counties (Northumberland, Durham, &c.) show a rate of mortality in the quarter of 1.84. These four divisions are distinguished from the remaining seven divisions by the higher death-rates that prevailed in them. In the South-western counties (Cornwall, Somersetshire, &c.) the population enjoyed the greatest health, for the death-rate did not exceed 1.54; and in the South-eastern (Surrey, Kent, Sussex, &c.) it was almost equally low. The following districts in the North-western counties exhibited a continuous *increase* in the number of deaths in three September quarters:—

	1860.	1861.	1862.
Northwich	144	155	192
Great Boughton	225	262	300
Wirral and Birkenhead	281	337	393
Liverpool	1,680	2,038	2,116
West Derby	923	1,222	1,322
Clitheroe	68	86	100
Chorley	147	212	218
Ulverstone	137	149	177

The excess in *Liverpool* was caused by diarrhoea and scarlatina; and it cannot be doubted that if those and other diseases of children, or fever, broke out in the more distressed districts where families who had lived apart now crowd in the same house, the mortality would be great. The following are certain of the districts where there has been a *decrease of deaths* in the last September quarter:—

	1860.	1861.	1862.
Wigan	452	495	433
Bolton	624	836	575
Bury	461	556	453
Chorlton	716	1,000	880
Manchester	1,553	1,970	1,475
Ashton	638	818	635
Oldham	542	666	601
Rochdale	431	482	353
Haslingden	341	387	296
Burnley	339	448	327
Blackburn	562	687	526
Preston	549	731	603

A few of the Registrars witnessing a reduction of the mortality with the distress that prevailed in their districts at the same time have been tempted to speculate on the facts, and as those officers in the course of their duties are in frequent communication with the labouring classes their opinions may be quoted. The Registrar of *Wigan* states that more freedom to breathe the fresh air, inability to indulge in spirituous liquors, and better nursing of children, are believed to have improved the public health. The Registrar of *Little Bolton* holds that the decrease of deaths is mainly due to a greater amount of domestic superintendence. The Registrar of *Hulme* thinks that the even temperature of the weather and increased

attention paid to young children have caused the decrease. The Registrar of *Knott Lanes* (Ashton) attributes the result to absence of epidemics, mildness of the weather, out-door exercise, maternal care; also to parish relief and charitable contributions, by means of which food has been obtained not sufficient for health, but enough to mitigate distress and prevent hitherto an increase of mortality. The Registrar of *Preston* sub-district also refers to the good effect of fresh air, nursing, and mildness of the weather, and he adds: "In the weeks ending August 2nd, 9th, 16th, 23rd, and 30th, I registered 30, 25, 29, 24, and 37 deaths, but in the corresponding weeks of 1861, when the work was more plentiful and people in better circumstances they were 50, 40, 50, 42, and 57. The peaceful and dignified conduct of the operatives entitles them to the warmest sympathy and support of all classes." The Registrar of *Ancoats* (Manchester) is convinced that the low rate of mortality in his sub-district was due to the coldness of the summer, in consequence of which diarrhoea did not prevail.

It has been recently asked whether starvation is good for the health, and attempts have been made with indifferent success to solve a difficulty which has not arisen. Nobody will seriously contend that inadequate supplies of food are conducive to health; it is too well known that famine has often slain its thousands; but it is right at the present time to guard against deductions from the returns of mortality which they do not justify. It has been assumed as obvious that if the death-rate in the distressed districts does not exceed or falls below that which has prevailed in times of prosperity, the relief obtained by the unemployed from public and private sources has sufficed to maintain them in health. The allowances may or may not have been sufficient in amount, but the returns of mortality furnish no evidence of the fact; they only show that extreme consequences of famine have not yet been manifested. Recreation in the open air, moderation in meat and drink, and the due administration of domestic offices are beneficial to health, but if they have been compensation for the loss of wages the tables above quoted are silent on the point. These tables prove that under circumstances favourable to human life the mortality in England was reduced last quarter, and that the districts of the *cotton manufacture* were not prevented by the distress from participating in the benefit; they cannot show that if Lancashire had been prosperous the health of its people would not have been still better and a further reduction of mortality obtained. It is matter not of speculation but fact that winter approaches, and that the cold of winter swells the bills of mortality by attacking the old, the young, and the infirm of middle age, and it needs not the gift of prophecy to predict that if cold and want, prolonged and embittered, attack a population with combined force, it must fall as if under an armed host. To avert or mitigate such a result, food, clothing, bedding, and firing must be dispensed by a public or private charity that can rise to the greatness of the occasion.

MARRIAGES Registered in Quarters ended 30th June, 1862-60; and
BIRTHS and DEATHS in Quarters ended 30th September, 1862-60.

DIVISIONS. (England and Wales.)	AREA in Statute Acres.	POPULATION, 1861. (Persons.)	MARRIAGES in Quarters ended 30th June.			
			'62.	'61.	'60.	
			No.	No.	No.	
ENGLD. & WALES.... <i>Totals</i>	37,324,883	20,066,224	40,771	41,966	43,777	
i. London	77,997	2,803,989	7,198	6,897	7,349	
ii. South-Eastern	4,065,935	1,847,661	3,324	3,436	3,442	
iii. South Midland	3,201,290	1,295,497	1,989	1,976	2,139	
iv. Eastern	3,214,099	1,142,580	1,548	1,677	1,726	
v. South-Western	4,993,660	1,835,714	3,519	3,651	3,803	
vi. West Midland	3,865,332	2,436,568	4,944	5,127	5,347	
vii. North Midland	3,540,797	1,288,928	2,645	2,771	2,908	
viii. North-Western	2,000,227	2,935,540	6,401	7,067	7,324	
ix. Yorkshire	3,654,636	2,015,541	4,161	4,127	4,534	
x. Northern	3,492,322	1,151,372	2,588	2,726	2,494	
xi. Monmthsh. & Wales	5,218,588	1,312,834	2,454	2,511	2,711	
7	8	9	10	11	12	
DIVISIONS. (England and Wales.)	BIRTHS in Quarters ended 30th September.			DEATHS in Quarters ended 30th September.		
	'62.	'61.	'60.	'62.	'61.	'60.
ENGLD. & WALES.... <i>Totals</i>	No. 172,237	No. 171,500	No. 164,121	No. 92,225	No. 100,986	No. 86,312
i. London	22,984	23,126	22,407	15,133	14,932	12,936
ii. South-Eastern	13,992	14,336	13,453	7,368	8,395	6,938
iii. South Midland	10,399	10,547	10,110	5,361	6,235	5,358
iv. Eastern	8,964	9,013	8,514	4,706	5,857	4,563
v. South-Western	14,165	14,386	13,474	7,142	7,612	7,050
vi. West Midland	21,472	21,525	20,754	10,619	11,416	9,645
vii. North Midland	11,155	11,080	10,777	5,332	6,529	5,421
viii. North-Western	27,984	27,184	25,691	15,302	17,316	13,954
ix. Yorkshire	18,847	18,635	17,737	10,228	10,901	9,797
x. Northern	11,031	10,982	10,505	5,470	6,107	5,149
xi. Monmthsh. & Wales	11,254	10,686	10,699	5,564	5,686	5,501

REMARKS ON THE WEATHER

DURING THE QUARTER ENDING 30TH SEPTEMBER, 1862.

By JAMES GLAISHER, Esq., F.R.S., &c., Sec. of the British Meteorological Society.

The cold weather which set in on the 9th of June, continued with but few trifling exceptions till the 12th of September; the average daily deficiency of temperature during these 96 days, was $2\frac{1}{2}^{\circ}$. Within this long period there were 12 days only on which the temperature of the air reached or exceeded its average value; and the excess above the average, on the very few days so distinguished, was generally less than 3° ; and on one day only, viz., the 8th of September, it was as large as 5° . Within this period of 96 days, rain fell on 40 days, to the amount of 7 inches. The wind blew from the north or a compound of the north on 26 days, from the S.W. on 35 days, the west on 28 days, south 3 days, and from the S.E. and E. 4 days. From the 13th of September the weather was warm, and for the 18 days ending the 30th of September, the average daily excess over their averages, was $2\frac{3}{4}^{\circ}$.

The mean temperature of the air in July was $59^{\circ}1$, being $1^{\circ}8$ lower than in 1861, and lower than in any July to 1841, with the exception of that of 1860, which was $57^{\circ}6$.

The mean temperature of August was $59^{\circ}5$, being $3\frac{3}{4}^{\circ}$ lower than in 1861, and lower than all back to 1845, with the exception of 1860, which was $57\frac{3}{4}^{\circ}$.

The mean temperature of September was $57^{\circ}7$, being $0^{\circ}6$ warmer than in 1861, and $4^{\circ}3$ warmer than in 1860.

The mean high day temperature of the air was $2^{\circ}9$ in defect in July, $1^{\circ}9$ in defect in August, and $0^{\circ}1$ in excess in September as compared with the averages of the preceding 21 years.

The mean low night temperature of the air was $2^{\circ}4$ in defect in July, $2^{\circ}0$ in defect in August, and $1^{\circ}2$ in excess in September.

Therefore both the days and nights in July and August were cold, and in September the nights were warm, the days being of their average warmth only.

The mean temperature of the air was $2^{\circ}7$ in defect in July, $1^{\circ}9$ in defect in August, and $0^{\circ}8$ in excess in September.

The mean temperature of the dew point was $1^{\circ}5$ in defect in July, $0^{\circ}6$ in defect in August, and $1^{\circ}4$ in excess in September.

The degree of humidity was at all times above its average value. Although there was less water present in the air in the months of July and August, the relative humidity was greater than usual owing to the low temperature of these two months.

The pressure of the atmosphere in each month was very nearly of its average value.

The fall of rain in July was 1.7 inch, in August 3.0 inches, and in September 1.6 inch, the total fall for the quarter was 6.3 inches, being 1.2 inch below the average of the preceding 43 years.

The mean temperature of the air at Greenwich in the three months ending August, constituting the three summer months, was 53°.9, being 0°.4 below the average of the preceding 91 years.

1862.	Temperature of										Elastic Force of Vapour.	Weight of Vapour in a Cubic Foot of Air.		
	Air.		Evaporation.		Dew Point.		Air—Daily Range.		Water of the Thames					
	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.						
July	59.1	-2.3	o	o	o	-1.9	52.4	-1.5	20.0	o	61.5	In.		
Aug.	59.5	-1.1	-1.9	56.3	-1.3	53.5	-0.6	19.5	+0.1	63.7	·394	Gr. 4.5		
Sep.	57.7	+1.4	+0.8	55.0	+1.1	52.5	+1.4	17.5	-1.1	60.9	-·023	Gr. 0.1		
Mean.....	58.7	-0.7	-1.3	55.6	-0.7	53.8	-0.2	19.0	-0.5	62.0	-·007	4.5		
												0.0		

1862.	Degree of Humidity.		Reading of Barometer.		Rain.	Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.		
	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.			Number of Nights it was	Lowest Read. at Night.	Highest Read. at Night.
	At or below 30°.	Between 30° and 40°.	Above 40°.	At Night.			At Night.	At Night.	At Night.
July	78	+ 2	In. 29.762	In. -0.033	Gr. 531	Gr. + 3	In. 1.7	In. -1.6	Miles. 261
Aug.	81	+ 4	29.785	-0.006	530	+ 2	3.0	+0.6	199
Sep.	83	+ 2	29.859	+0.036	534	0	1.6	-0.8	172
Mean.....	81	+ 3	29.802	-0.001	532	+ 2	Sum 6.3	-1.2	Mean 210
							Sum 0	9	Sum 83
							Lowest 32.0	Highest 56.1	

Note.—In reading this table it will be borne in mind that the sign (—) minus signifies below the average, and that the sign (+) plus signifies above the average.

At Guernsey, barley and rye were cut on 26th of July, wheat on the 30th; the harvest was finished by the end of August.

At Worthing, wheat was cut on 27th of July; the harvest became very general by the 4th of August; the grain was all housed by the end of the month. Altitude in this neighbourhood seems to influence the crops very much. Corn is now grown on the downs, 700 feet above the sea level.

At Belvoir, wheat cutting commenced in the second week in August, the crop is rather a light one, the ears being imperfectly filled; oats are more promising; the hay crop was well got in, the quality never better, and a good medium crop in bulk; stock generally healthy; orchard fruit variable; potatoes much affected by disease.

ENGLAND.—Meteorological Table, Quarter ended 30th September, 1862.

1 NAMES OR STATIONS.	2 Mean Pressure of Dry Air reduced to the Level of the Sea.	3 Highest Reading of the Thermo- meter.	4 Lowest Reading of the Thermo- meter.	5 Range of Tem- perature in the Quarter.	6 Mean Monthly Range of Tem- perature.	7 Mean Daily Range of Tem- perature.	8 Mean Tem- perature of the Air.	9 Mean Degree of Hu- midity.
Guernsey	29.584	71.0	49.0	22.0	19.0	8.7	57.8	87
Exeter	29.580	74.2	44.0	30.2	27.6	14.3	58.2	81
Ventnor	29.589	70.0	48.0	22.0	20.0	9.1	60.1	79
Barnstaple	29.591	75.1	42.2	39.9	29.6	13.7	58.3	84
Royal Observatory	29.582	79.9	39.2	40.7	34.7	19.0	58.8	81
Royston	29.572	80.0	41.3	38.7	33.2	19.3	57.6	78
Lampeter	29.573	75.0	33.4	41.6	38.2	19.8	55.8	84
Norwich	29.587	74.5	43.0	31.5	28.5	14.6	58.4	82
Derby	29.577	75.0	36.0	39.0	30.7	15.0	59.3	79
Liverpool	29.579	69.8	47.6	22.2	18.6	9.7	57.7	74
Wakefield	29.576	77.7	34.5	43.2	36.3	18.1	56.9	81
Leeds	29.565	73.0	38.0	35.0	28.7	15.1	55.6	82
Stonyhurst	29.565	70.9	40.3	30.6	27.0	14.5	55.5	83
Scarborough	29.569	70.0	45.0	25.0	21.0	8.9	54.5	93
Harrogate	29.558	72.0	41.0	31.0	26.6	14.4	55.0	82
North Shields	29.557	72.0	39.6	32.4	26.1	12.2	54.3	84

10 NAMES OR STATIONS.	11 Mean estimated Strength.	WIND.				16 Mean Amount of Cloud.	RAIN.		
		Relative Proportion of					17 Number of Days on which it fell.	18 Amount collected.	
		N.	E.	S.	W.				
Guernsey	1.4	9	5	7	10	4.2	34	4.3	
Exeter	1.1	8	3	8	12	6.6	54	6.7	
Ventnor	—	4	5	8	14	—	42	4.9	
Barnstaple	1.4	5	5	10	11	4.5	50	10.6	
Royal Observatory	—	5	5	8	12	7.3	48	6.3	
Royston	—	8	4	6	13	6.3	42	6.2	
Lampeter	0.6	2	7	12	10	7.2	32	9.4	
Norwich	—	7	6	9	9	—	33	6.0	
Derby	—	—	—	—	—	—	43	7.7	
Liverpool	1.2	—	—	—	—	7.1	39	8.1	
Wakefield	1.6	7	7	7	9	6.9	48	7.3	
Leeds	1.6	6	5	10	10	7.6	44	5.2	
Stonyhurst	0.5	7	7	5	12	7.7	56	14.0	
Scarborough	3.0	5	8	10	8	—	—	7.5	
Harrogate	0.8	7	6	6	9	3.6	45	8.6	
North Shields	1.9	8	5	6	12	6.0	51	9.0	

Trade of United Kingdom, 1862-61-60.—*Distribution of Exports from United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (Ex-duty) of Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (excluding Gold and Silver), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	First Six Months.					
	1862.		1861.		1860.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
I.—FOREIGN COUNTRIES:						
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	4,773	1,673	4,718	2,137	5,531	1,990
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	10,231	9,475	10,809	9,795	10,985	10,079
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	12,667	7,152	12,676	6,240	11,510	4,748
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	2,121	3,229	3,232	3,785	2,122	2,721
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	7,452	2,787	6,452	2,704	6,886	3,769
Northern Africa; viz., Tripoli, Tunis, Algeria, and Morocco	206	101	204	99	73	79
Western Africa	648	474	419	423	649	473
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Moorria Islands	—	51	—	23	19	56
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	671	750	570	1,074	643	896
South Sea Islands	—	—	—	27	—	3
China, including Hong Kong	7,136	1,883	5,642	3,204	5,526	2,858
United States of America	11,221	6,450	32,012	5,474	25,631	9,486
Mexico and Central America	461	271	271	452	245	284
Foreign West Indies and Hayti	1,865	1,287	1,728	1,037	1,426	806
South America (Northern), New Granada, Venezuela, and Ecuador	492	448	322	730	297	482
" (Pacific), Peru, Bolivia, Chili, and Patagonia	2,604	814	2,482	1,308	2,435	1,339
" (Atlantic) Brazil, Uruguay, and Buenos Ayres	2,629	2,530	1,455	3,505	2,022	3,161
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	14	9	5	3	24	—
<i>Total.—Foreign Countries</i>	65,191	39,384	82,997	41,980	76,024	43,233
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	10,314	7,909	7,722	8,628	7,382	9,377
Austral. Cols.—New South Wales and Victoria	2,451	3,967	2,462	3,767	2,411	4,116
" " So. Aus., W. Aus., Tasm., and N. Zea.	764	1,159	799	1,070	1,029	913
British North America	1,539	1,475	1,050	1,098	697	1,522
" W. Indies with Btsh. Guiana & Honduras	3,318	1,629	2,577	1,249	2,758	1,149
Cape and Natal	592	949	494	971	760	953
Brt. W. Co. of Af., Ascension and St. Helena	61	207	84	165	66	166
Mauritius	809	256	1,567	289	1,087	252
Channel Islands	345	380	327	326	242	338
<i>Total.—British Possessions</i>	20,193	17,931	16,082	18,163	16,438	18,786
<i>General Total</i>	£ 85,384	£ 57,315	£ 99,079	£ 60,143	£ 92,462	£ 62,019

IMPORTS.—(United Kingdom.)—First Eight Months (January—August), 1862-61-60-59-58.—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(First Eight Months.) (000's omitted.) FOREIGN ARTICLES IMPORTED.	1862.	1861.	1860.	1859.	1858.
	£	£	£	£	£
RAW MATLS.—Textile.					
Cotton Wool	11,655	30,809	28,941	24,039	22,291
Wool (Sheep's) ..	7,333	6,455	7,797	6,981	5,600
Silk	9,764	5,428	6,243	6,965	3,564
Flax	2,664	1,474	2,256	2,145	1,465
Hemp	1,336	909	835	1,372	876
Indigo	2,151	1,993	1,893	1,602	1,380
	34,903	47,068	47,965	43,104	35,176
" " Various.					
Hides	1,681	1,404	2,085	1,884	1,272
Oils	2,164	1,937	2,259	1,917	1,961
Metals	2,807	2,106	2,460	2,215	2,139
Tallow	995	1,174	1,586	1,150	1,087
Timber	4,908	5,214	4,513	3,826	2,523
	12,555	11,835	12,903	10,992	8,982
" " Agreblt.					
Guano	518	1,395	923	1,545	2,976
Seeds	1,413	1,679	1,850	615	1,027
	1,931	3,074	2,773	2,160	4,003
TROPICAL, &c., PRODUCE.					
Tea	5,652	4,219	5,081	3,741	3,301
Coffee	2,379	1,491	1,428	1,078	1,221
Sugar & Molasses	8,892	9,487	9,005	8,189	8,326
Tobacco	673	713	463	420	696
Rice	1,266	1,024	473	284	1,108
Fruits	185	354	320	167	184
Wine	2,468	2,829	3,096	1,582	1,391
Spirits	1,078	1,084	1,420	1,279	754
	22,593	21,201	21,286	16,740	16,981
FOOD					
Grain and Meal..	23,233	24,693	15,819	12,118	14,066
Provisions	5,090	4,404	3,693	2,044	2,184
	28,323	29,097	19,512	14,162	16,250
Remainder of Enumerated Articles	2,379	2,312	2,455	2,134	1,810
TOTAL ENUMERATED IMPORTS....	102,684	114,588	106,894	89,292	83,202
Add for UNENUMERATED IMPORTS (say)	25,671	28,647	26,723	22,323	20,800
TOTAL IMPORTS.....	128,355	143,235	133,617	111,615	104,002

EXPORTS.—(United Kingdom.)—First Nine Months (January—September), 1862-61-60-59-58.—Declared Real Value, at Port of Shipment, of Articles of BRITISH and IRISH Produce and Manufactures Exported from United Kingdom.

(First Nine Months) BRITISH PRODUCE, &c., EXPORTED.	(Unit 000's omitted.)	1862.	1861.	1860.	1859.	1858.
MANFRS.—Textile.	Cotton Manufactures..	£ 24,769,	£ 28,683,	£ 30,947,	£ 28,957,	£ 24,212,
	„ Yarn	5,297,	7,137,	7,378,	6,889,	7,009,
	Woollen Manufactures	9,698,	8,009,	9,463,	9,251,	7,278,
	„ Yarn	2,753,	2,656,	2,893,	2,008,	2,097,
	Silk Manufactures ..	1,547,	1,593,	1,607,	1,627,	1,362,
	„ Yarn	254,	214,	205,	157,	140,
	Linen Manufactures....	3,666,	2,942,	3,466,	3,456,	3,000,
	„ Yarn	1,353,	1,127,	3,169,	1,176,	1,261,
		49,337,	52,361,	57,328,	53,601,	46,359,
„ Sewed.	Apparel	1,609,	1,462,	1,528,	1,540,	1,359,
	Haberdy. and Mlnry.	2,689,	2,630,	3,113,	3,332,	2,620,
		4,298,	4,092,	4,641,	4,872,	3,979,
METALS	Hardware.....	2,391,	2,496,	2,768,	2,835,	2,372,
	Machinery	2,951,	3,120,	2,644,	2,739,	2,723,
	Iron	8,364,	7,909,	9,229,	9,813,	8,817,
	Copper and Brass.....	2,141,	1,743,	2,283,	1,927,	2,063,
	Lead and Tin	2,130,	1,359,	2,006,	2,045,	1,710,
	Coals and Culm	2,892,	2,745,	2,534,	2,582,	2,437,
		20,869,	19,372,	21,465,	21,941,	20,122,
Ceramic Manfrs.	Earthenware and Glass	1,359,	1,292,	1,595,	1,438,	1,303,
Indigenous Mfrs.	Beer and Ale	1,124,	1,105,	1,571,	1,637,	1,447,
	Butter	262,	379,	465,	512,	382,
	Cheese	87,	95,	82,	94,	62,
	Candles	169,	215,	184,	136,	126,
	Salt	248,	297,	277,	200,	240,
	Spirits	368,	332,	230,	197,	158,
	Soda	682,	436,	753,	784,	587,
		2,940,	2,859,	3,562,	3,560,	3,002,
Various Manfrs.	Books, Printed.....	296,	330,	364,	343,	284,
	Furniture.....	183,	179,	166,	171,	194,
	Leather Manufactures	1,859,	1,545,	1,626,	1,441,	1,505,
	Soap	174,	170,	193,	158,	160,
	Plate and Watches	353,	331,	396,	359,	333,
	Stationery.....	199,	494,	572,	630,	581,
		3,064,	3,049,	3,317,	3,102,	3,057,
Remainder of Enumerated Articles		6,181,	3,309,	2,951,	2,560,	2,575,
Unenumerated Articles		5,624,	7,461,	6,865,	6,963,	5,913,
TOTAL EXPORTS		93,672,	93,795,	101,724,	98,037,	86,310,

SHIPPING.—FOREIGN TRADE.—(United Kingdom.)—First Nine Months (January—September), 1862-61-60-59. —Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.

(First Nine Months.)	1862.			1861.			1860.			1859.		
	ENTERED:—	Vessels.	Tonnage (000's omitted.)	Average Tonnage	Vessels.	Tonnage (000's omitted.)						
<i>Vessels belonging to—</i>												
Russia		323	95,	294	307	91,	305	88,	269	77,		
Sweden		714	117,	164	786	129,	815	126,	693	114,		
Norway		2,360	483,	205	2,278	477,	1,978	430,	1,969	433,		
Denmark		1,915	184,	96	1,821	176,	2,200	213,	1,949	192,		
Prussia and Ger. Sts.		2,751	669,	245	2,777	637,	2,861	598,	2,692	589,		
Holland and Belgium		1,279	177,	139	1,184	162,	1,231	170,	1,241	173,		
France		1,415	118,	84	1,344	107,	1,377	115,	1,929	156,		
Spain and Portugal.....		295	87,	297	354	84,	299	80,	311	72,		
Italy & other Eupn. Sts.		611	172,	282	724	198,	732	206,	467	131,		
United States		975	848,	870	1,572	1,342,	1,020	991,	871	849,		
All other States		77	21,	272	10	3,	12	3,	16	5,		
United Kingdm. & Depds. } 15,840	2,973,	235	13,157	3,406,	12,830	3,020,	12,407	2,791,				
	4,700,	297	15,491	4,631,	14,596	4,206,	14,665	3,974,				
<i>Totals Entered</i>	28,555	7,673,	269	28,648	8,047,	27,426	7,226,	27,072	6,765,			
<i>CLEARED:—</i>												
Russia		308	91,	296	304	89,	284	83,	282	80,		
Sweden		712	116,	163	799	132,	828	129,	698	117,		
Norway		1,535	262,	173	1,519	247,	1,256	228,	1,431	277,		
Denmark		2,347	225,	96	2,377	232,	2,613	251,	2,201	218,		
Prussia and Ger. Sts.		4,122	792,	192	3,832	707,	3,651	666,	3,757	691,		
Holland and Belgium		1,743	257,	147	1,505	213,	1,493	237,	1,525	229,		
France		3,768	363,	96	3,957	372,	2,858	303,	2,864	307,		
Spain and Portugal		300	93,	269	317	84,	271	72,	277	67,		
Italy & other Eupn. Sts.		622	80,	289	834	233,	806	232,	636	184,		
United States		897	795,	886	1,225	1,071,	1,150	1,091,	903	859,		
All other States		111	31,	279	20	6,	12	4,	16	5,		
United Kingdm. & Depds. } 16,465	3,205,	195	16,689	3,386,	15,222	3,296,	14,590	3,034,				
	5,759,	269	20,730	5,252,	18,732	4,960,	18,981	4,895,				
<i>Totals Cleared</i>	37,899	8,964,	236	37,419	8,638,	33,954	3,256,	33,571	7,929,			

GOLD AND SILVER BULLION AND SPECIE.—IMPORTED AND EXPORTED.—(United Kingdom.)—Computed Real Value for the First Nine Months (January—September), 1862-61-60.

(000's at unit end omitted.)

(First Nine Months.)	1862.		1861.		1860.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
Imported from:—						
Australia	4,650,	—	4,889,	—	4,639,	1,
So. Amca. and W. Indies	1,226,	4,606,	1,139,	4,118,	919,	3,783,
United States and Cal.	6,836,	83,	28,	26,	3,791,	796,
	12,712,	4,689,	6,056,	4,144,	9,349,	4,580,
France	89,	983,	2,471,	466,	92,	1,864,
Hanse Towns, Holl. & Belg.	402,	1,735,	703,	456,	22,	922,
Prtgl., Spain, and Gbrltr.	23,	91,	17,	120,	14,	217,
Mita., Trky., and Egypt	8,	13,	42,	4,	31,	18,
China	—	—	—	—	—	—
West Coast of Africa	80,	3,	73,	2,	72,	4,
All other Countries....	1,075,	69,	559,	31,	210,	20,
Totals Imported	14,389,	7,583,	9,921,	5,223,	9,790,	7,625,
Exported to:—						
France	3,900,	515,	964,	908,	5,805,	433,
Hanse Towns, Holl. & Belg.	155,	501,	14,	701,	125,	469,
Prtgl., Spain, and Gbrltr.	1,872,	7,	674,	3,	896,	1,
	5,927,	1,023,	1,652,	1,612,	6,826,	903,
Ind. and China (via Egypt)	—	6,534,	581,	5,708,	1,076,	6,767,
Danish West Indies....	—	—	35,	33,	6,	22,
United States	36,	1,	7,037,	48,	7,	2,
South Africa	—	—	85,	—	2,	—
Mauritius.....	—	—	—	2,	—	—
Brazil	227,	19,	18,	119,	342,	120,
All other Countries....	5,010,	1,024,	749,	80,	196,	34,
Totals Exported	11,201,	8,601,	10,157,	7,602,	8,455,	7,849,
Excess of Imports ...	3,188,	—	—	—	1,335,	—
.. Exports ...	—	1,018,	236,	2,379,	—	224,

REVENUE.—(UNITED KINGDOM.)—30TH SEPT., 1862-61-60-59.

Net Produce in YEARS and QUARTERS ended 30TH SEPT., 1862-61-60-59.

QUARTERS, ended 30th Sept.	[Unit 000's omitted.]					
	1862.		1861.		Corresponding Quarters.	
	Less.	More.	Less.	More.	1860.	1859.
Customs	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
	6,201,	5,982,	—	219,	5,888,	6,576,
Excise	3,604,	4,221,	617,	—	5,089,	5,549,
Stamps	2,180,	2,013,	—	167,	2,053,	1,937,
Taxes	166,	160,	—	6,	166,	146,
Post Office	895,	870,	—	25,	800,	780,
	13,046,	13,246,	617,	417,	13,996,	14,988,
Property Tax	974,	991,	17,	—	2,281,	1,874,
	14,020,	14,237,	634,	417,	16,277,	16,862,
Crown Lands	67,	66,	—	1,	65,	62,
Miscellaneous	514,	298,	—	216,	316,	340,
Totals	14,601,	14,601,	634,	634,	16,658,	17,264,
			NET DECR. £249			

YEARS, ended 30th Sept.	1862.						Corresponding Years.	
	1862.		1861.		1860.		1860.	1859.
	Less.	More.	Less.	More.	Less.	More.	Less.	More.
Customs	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
	23,863,	23,488,	—	375,	23,396,	24,809,		
Excise	17,430,	18,624,	1,194,	—	20,070,	18,685,		
Stamps.....	8,825,	8,426,	—	399,	8,267,	7,988,		
Taxes	3,160,	3,130,	—	30,	3,257,	3,190,		
Post Office	3,560,	3,470,	—	90,	3,370,	3,255,		
	56,838,	57,138,	1,194,	894,	58,360,	57,927,		
Property Tax	10,532,	11,133,	601,	—	10,310,	5,686,		
	67,370,	68,271,	1,795,	894,	68,670,	63,613,		
Crown Lands	296,	292,	—	4,	290,	282,		
Miscellaneous	2,019,	1,243,	—	776,	1,850,	2,096,		
Totals	69,685,	69,806,	1,795,	1,674,	70,810,	65,991,		
			NET DECR. £120,620					

REVENUE.—(UNITED KINGDOM).—QUARTER ENDED 30TH SEPT., 1862:—
APPLICATION.

An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 30th September, 1862; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.

Received:—

Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th June, 1862, viz.:—	£
Great Britain	—
Ireland	£740,183
	740,183
Income received in the Quarter ended 30th September, 1862, as shown on preceding page	14,600,983
Amount raised per Act 23 and 24 Victoria, cap. 109, on account of Fortifications, &c.	300,000
Amount received in the Quarter ended 30th September, 1862, in repayment of Advances for Public Works, &c.	388,105
	£16,035,361
Balance, being the deficiency on 30th September, 1862, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 31st September, 1862, and for which Exchequer Bills (Deficiency) will be issued in that Quarter	3,420,002
	£10,465,263

Paid:—	
Amount applied out of the Income for the Quarter ended 30th September, 1862, in redemption of Exchequer Bills (Deficiency), for the Quarter ended 31st March, 1862	£ 1,548,323
Amount applied out of the Income to <i>Supply Services</i> in the Quarter ended 30th September, 1862	10,743,995
Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th September, 1862, viz.:—	
Interest of the Permanent Debt	£5,519,782
Terminable Debt	671,526
Interest of Exchequer Bills	102,516
, Deficiency Bills	Nil.
The Civil List	101,196
Other Charges on Consolidated Fund	476,510
Advances for Public Works, &c.	178,928
	7,050,497
Surplus Balance in Ireland beyond the Charge of the <i>Consolidated Fund</i> in Ireland for the Quarter ended 30th September, 1862, viz.:	122,448
	£10,465,263

CORN.—*Gazette Average Prices (ENGLAND AND WALES) Third Quarter of 1862.*

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday 1862.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
July 5	56 7	32 3	21 2	37 1	40 7	42 1
" 12	57 —	31 9	21 1	36 9	40 2	38 9
" 19	56 11	31 0	21 0	37 11	41 2	42 1
" 26	57 6	32 2	21 3	36 4	40 7	40 2
<i>Average for July</i>		57 —	31 11	24 3	37 —	40 7
August 2	57 8	33 8	24 6	37 2	41 3	41 1
" 9	57 10	32 6	25 3	38 11	41 8	40 —
" 16	57 4	32 3	25 3	37 2	41 8	39 —
" 23	57 0	32 4	26 3	37 3	42 7	38 9
" 30	58 4	34 —	24 11	35 4	42 8	38 7
<i>Average for August</i>		57 9	32 11	25 2	37 2	41 11
Sept. 6	58 4	36 —	25 1	36 8	42 —	40 1
" 13	55 10	30 7	24 7	35 9	41 8	40 6
" 20	51 9	37 2	23 9	35 6	41 2	40 5
" 27	53 2	36 2	22 8	36 5	41 —	40 6
<i>Average for September</i>		55 6	36 5	24 —	36 1	41 5
<i>Average for the Quarter</i>		66 10	33 8	24 6	36 9	41 4
						40 1

RAILWAYS.—PRICES, *July—Sept.*,—and TRAFFIC, *Jan.—Sept.*, 1862.

Total Capital Expend. Mins.	Railway.	For the (£100). Price on			Miles Open.	Total Traffic first 39 Weeks. (unit 000's omitted.)	Traffic pr. Mile pr. Wk. 39 Weeks.	Dividends per Cent. for Half Years.						
		1st Sept.	1st Aug.	1st July				30 Jun. '62.	31 Dec. '61.	30 Jun. '61.				
		£	£	£	£	£	£	s. d.	s. d.	s. d.				
44,4	Lond. & N. Westn.	93 1	96 1	94 1	No.	No.	£	78	81	37 6	47 6	37 6		
35,2	Great Western	65 3	73 3	71 2	992	964	2,260,	2,137,	71	57	5	30 —	22 6	
13,8	" Northern	123 1	119 2	115 3	330	330	1,066,	1,036,	82	80	45	77 6	37 6	
16,7	" Eastern	44 1	60 1	55 2	646	646	1,051,	1,022,	41	41	20	30 —	16 3	
10,4	Brighton	120	124	241	241	241	752,	709,	80	75	50	70 —	50 —	
14,1	South-Eastern	84 1	85 1	82 2	306	306	897,	855,	75	72	42	6	50 —	
12,6	" Western	99 1	103 1	100 2	442	400	—	—	—	40	—	55 —	40 —	
147,2		90	94	91	4,081	3,949	9,459,	9,116,	67	66	34	3	51 —	35 1
22,0	Midland	127 1	130 1	126 1	630	614	1,532,	1,532,	62	63	55	—	70 —	62 6
19,5	Lancsh. and York	106 1	108 1	105	395	395	865,	925,	56	60	37	6	50 —	45 —
11,7	Sheffield and Man.	39	39 1	39	236	236	544,	594,	59	64	—	12 6	7 6	
23,8	North-Eastern	96	99	96 1	894	867	1,485,	1,459,	43	43	42	6	50 —	52 6
4,5	South Wales	68 1	69	66	—	—	—	—	—	—	32	6	30 —	27 6
81,5		87 1	89	88	2,155	2,112	4,426,	4,510,	52	54	41	10	42 —	39 —
9,1	Caledonian	109 1	108 1	105 1	230	230	614,	607,	68	67	50	—	55 —	50 —
5,3	Gt. S. & Wn. Irlnd.	106	109	106	329	329	316,	319,	25	25	50	—	50 —	50 —
43,1	Gen. aver.	91	93	92	6,895	6,620	14,815,	14,552,	59	60	39	—	48 6	38 7

Consols.—Money Prices 1st Sept., 93 1 to 5.—1st August, 93 1 to 94.—1st July, 91 1 to 4.
Exchequer Bills. " 15s. to 21s. pm. " 25s. to 28s. pm. " 6s. to 9s. pm.

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