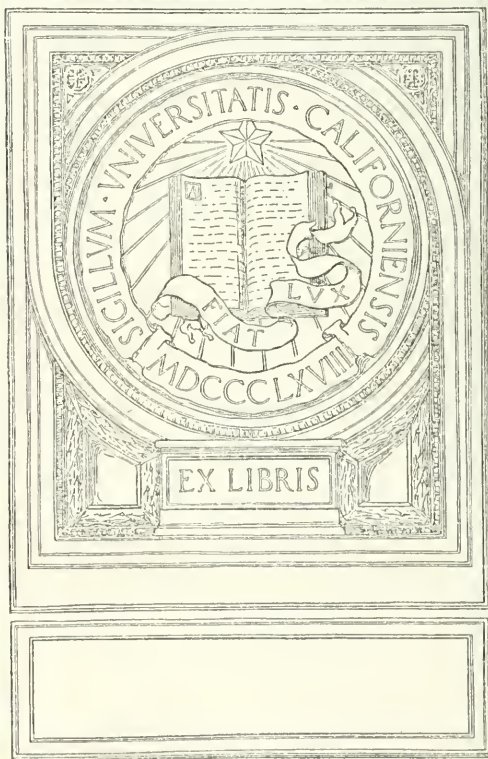




UNIVERSITY OF CALIFORNIA
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ARTS AND ARTISANS

AT HOME AND ABROAD.

ARTS AND ARTISANS

AT HOME AND ABROAD:

WITH

SKETCHES OF THE PROGRESS OF FOREIGN
MANUFACTURES.

BY JELINGER C. SYMONS, Esq.

ONE OF THE ASSISTANT COMMISSIONERS ON THE HANDLOOM INQUIRY, &c.

EDINBURGH:

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PREFACE.

The researches I have assisted in making under the Hand-loom Commission, and more especially my subsequent mission of inquiry into the relative circumstances of the artisans of France, Belgium, Austria, and Switzerland, aided by the facilities afforded me through the personal and official services of our Ambassadors, have necessarily opened to me a wide and valuable field of observation, affording fruits which I am neither able to comprise, nor willing to confine, within the limits of a Parliamentary Report.

The fearful increase of our population—the restricted amount of our means of sustenance—the precarious position of commerce, and the agitated and morbid condition of the artisan millions—sufficiently attest the importance of a correct knowledge of the relative features of the British and Continental industry.

I do not attempt to conceal from myself the direct bearing of the observations I have made, on the great question of the corn-laws. I feel the full responsibility which, under the circumstances of the times, devolves on any one who adventures on "the dangerous precipice of telling unbiassed truths," reckless of the prepossessions of party, or the prejudices of class interests.

Having no interest with which that of the community is not identical, I have sought to serve it by the full and fearless development of the truth.

My object, then, in writing this book, is to give the widest possible publicity to the facts which the official inquiry I have assisted has elicited. In so doing, I feel that I am acting no less in accordance with the spirit of those who have so ably superintended it, than with regard to the interests of the public.

As I desire, first, to exhibit *facts*, and, secondly, to render them as readable as possible, I have condensed theory within its smallest limits, and discarded the trammels of methodical arrangement. The only divisions of the general subject I have ventured to make, are those into which it naturally divides itself,—first, as regards artisans, whether at

home or abroad ; into the wages earned ; the relative value of those wages, and the laws which govern them ; and the points which affect their mental and moral condition. As regards the manufacturing arts, I have next endeavoured to exhibit the salient features of their progress abroad, first, as relates to the material economy of manufactures, and secondly as relates to the great principles of trade.

J. C. S.

REFORM CLUB, LONDON.

April 4. 1839.



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CHAPTER I.

WAGES AT HOME.

Wages in England—Wages in Scotland—Agricultural wages in the chief Scottish counties—Prices of provisions.

I shall first endeavour to exhibit the exact differences between the rates of wages here and abroad, both as regards their pecuniary and real value. I will begin with this country; and having given a summary sketch of the average wages of journeymen, current in the chief branches of industry here, I shall proceed to detail more circumstantially the wages paid to the same artisans in some of the chief nations of the Continent. I believe, allowing for the fluctuations of trade, the following statement will be found sufficiently accurate for the purposes of comparison.

The following rates of wages in the Lancashire Factories are nearly an average for the whole country, and were drawn up by the Manchester Chamber of Commerce :

WAGES AT HOME.

Spinners, men	20/ to 25/
~~~~~ women, . . . . .	10/ ~ 15/
Stretchers, . . . . .	25/ ~ 26/
Piecers (boys and girls), . . . . .	4/7 ~ 7/
Scavengers, . . . . .	1/6 ~ 2/8

*In the Card-room :*

Men, . . . . .	14/6 ~ 17/
Young women, . . . . .	9/ ~ 9/6
Children, . . . . .	6/ ~ 7/
Throstle spinners, . . . . .	5/ ~ 9/6
Reelers, . . . . .	7/ ~ 9

*Weavers by Power :*

Men, . . . . .	13/ ~ 16/10
Women, . . . . .	8/ ~ 12/
Dressers' men . . . . .	28/ ~ 30/
Winders and warpers, . . . . .	8/ ~ 11/
Mechanics, . . . . .	24/ ~ 26/

*Weaving by Hand :*

Quality	Woven by	
Nankeens, fancy . . . . .	men, . . . . .	9/ ~ 15/
~~~~~ common, . . . . .	children and women, . . . . .	6/ ~ 8/
~~~~~ best, . . . . .	men, . . . . .	10/ ~ 13/
Checks, fancy, . . . . .	men, . . . . .	7/ ~ 7/6
~~~~~ common, . . . . .	children, . . . . .	6/ ~ 7/
Cambrics,	all ages,	6/ ~ 6/6
Quiltings,	men and women,	9/ ~ 12/

In other trades, the following are about the average rates of wages paid throughout England :

Fustian cutters,	all ages,	10/ ~ 12/
Machine-makers,	men,	26/ ~ 30/
Iron-founders,	men,	28/ ~ 30/
Dyers and dressers,	men,	15/ ~ 20/
~~~~~ . . . . .	young men, . . . . .	12/ ~ 14/
~~~~~ . . . . .	boys . . . . .	5/ ~ 10/
Tailors,	men,	18/ to 20/
Porters,	~	14/ ~ 16/

Shoemakers . . . men . . .	15/ to 18/
Whitesmiths, . . . ~ . . .	22/ ~ 24/
Sawyers, . . . ~ . . .	24/ ~ 28/
Carpenters, . . . ~ . . .	20/ ~ 25/
Stone-masons, . . . ~ . . .	18/ ~ 22/
Bricklayers, . . . ~ . . .	17/ ~ 20/
Bricklayers' labourers, . . . ~ . . .	12/ ~
Painters, . . . ~ . . .	18/ ~
Slaters, . . . ~ . . .	3/8 ¹ / ₂ day.
Plasterers, . . . ~ . . .	19/ to 21/
Spadesmen, . . . ~ . . .	10/ ~ 15/
Blacksmiths, . . . ~ . . .	18/ ~ 22/
Compositors, . . . ~ . . .	24/ ~

Wages in Sheffield vary from 25/ to 35/ per week for the workmen in the skilled departments, and often amount to 40/ per week.

In the iron-works in the Birmingham district, wages average from 20/ to 30/ for the common labourers, so great is the increasing demand in the iron trade.

In the Leeds flax-mills the wages average as follows:—Male adults, from 17/ to 19/ per week ; females from 5/6 to 6/6 ; children between nine and ten years old, 3/6 to 4/.

In the Gloucestershire cloth-factories, the wages of male adults average from 12/ to 14/ ; of females, from 4/ to 5/ ; and of children, from 2/ to 3/6.

To these I may add the following statements as regards Scotland, where my inquiries were personally applied.

In and near Glasgow, masons, bricklayers, house-carpenters, blacksmiths, &c., earn from 19/ to 22/

per week. Engineers from 20/ to 30/, according to skill, &c., and some higher. Tailors, cabinet-makers, hatters, plumbers, shoemakers, &c., earn from 20/ to 25/. In the country the wages are lower by 10 to 20 per cent. In the cotton-mills the following may be taken as a fair general average :

	per Week.
Picking room, females 20 years of age and upwards, . .	7/
Attending cards, males and females, 13 years to 15, . .	4/6
~~~~~ drawing frames, females, 16 years and upwards, .	6/6
~~~~~ slobbering frames, do. do. do.	6/6
~~~~~ finishers do. do. do.	7/
~~~~~ stretchers do. do. do.	8/6
~~~~~ throstle spinners, do. 13 years and upwards, .	7/
~~~~~ reelers, do. 16 years and upwards, .	6/6
~~~~~ toppers, . males, 20 years and upwards, .	14/
~~~~~ spinners, do. do. 25/ to 29/	
~~~~~ outside piecers, do. 16 years to 20 . .	6/
~~~~~ inside piecers, do. 13 years to 16 . .	3/6
~~~~~ cleaners, do. 9 years to 13 . .	2/

In Lancashire nearly the same distribution of labour prevails ; but the average rate of wages, including men, women, and children indiscriminately, amounts weekly to 10/6 per head.

In the collieries, the following table affords a view of the variations which have taken place in wages since 1811 ; and as no trade has been more subject to combinations, or exhibited more important peculiar features, I do not hesitate to introduce it. I am indebted to William Dixon, Esq., one of the largest proprietors of collieries in Great Britain, for the information it contains.

	Average Earnings per day.			Average Earnings per week, assuming $4\frac{1}{2}$ days of 10 hours as the average quantity of work wrought by each collier per week, with house free, and coal free, except his own labour in producing it.			Total Earnings per week, including house-rent, which is given gratis, and coals.		
	L.	S.	D.	L.	S.	D.	L.	S.	D.
1811	0	4	11	1	2	$1\frac{1}{2}$	1	4	$8\frac{1}{2}$
1812	0	4	11	1	2	$1\frac{1}{2}$	1	4	$6\frac{1}{2}$
1813	0	4	0	0	18	0	1	0	5
1814	0	4	3	0	19	$1\frac{1}{2}$	1	1	$5\frac{1}{2}$
1815	0	4	6	1	0	3	1	2	5
1816	0	4	7	1	0	$7\frac{1}{2}$	1	2	9
1817	0	4	0	0	18	0	0	19	11
1818	0	3	8	0	16	6	0	17	5
1819	0	3	11	0	17	$7\frac{1}{2}$	0	19	$6\frac{1}{2}$
1820	0	3	9	0	16	$10\frac{1}{2}$	0	18	$9\frac{1}{2}$
1821	0	3	3	0	14	$7\frac{1}{2}$	0	16	$6\frac{1}{2}$
1822	0	3	6	0	15	9	0	17	10
1823	0	3	7	0	16	$1\frac{1}{2}$	0	18	$1\frac{1}{2}$
1824	0	4	2	0	18	9	1	0	0
1825	0	5	3	1	3	$7\frac{1}{2}$	1	6	$5\frac{1}{2}$
1826	0	5	0	1	2	6	1	4	8
1827	0	4	3	0	19	$1\frac{1}{2}$	1	0	$9\frac{1}{2}$
1828	0	4	3	0	19	$1\frac{1}{2}$	1	0	$11\frac{1}{2}$
1829	0	4	3	0	19	$1\frac{1}{2}$	1	0	$9\frac{1}{2}$
1830	0	4	3	0	19	$1\frac{1}{2}$	1	0	$11\frac{1}{2}$
1831	0	3	11	0	17	$7\frac{1}{2}$	0	19	$3\frac{1}{2}$
1832	0	4	1	0	18	$4\frac{1}{2}$	1	0	$0\frac{1}{2}$
1833	0	4	0	0	18	0	0	19	8
1834	0	4	0	0	18	0	0	19	9
1835	0	4	0	0	18	0	0	19	9
1836	0	4	9	1	1	$4\frac{1}{2}$	1	3	$8\frac{1}{2}$
1837	0	5	0	1	2	6	1	5	0
1838	0	4	6	1	0	3	1	2	7
In July } 1838 }	0	3	6	0	15	9	0	17	5

The stocking-makers of Leicester average, according to Mr Porter's statement,  $8/3$  per week. In Dumfries, celebrated for the excellency of this article of manufacture, the workmen are paid at so much per dozen of the fabric woven, whether stockings, drawers, or shirts. Men's stockings of 24 gage are paid  $9/6$  per dozen, and an average

workman will make 18 pair in the week ; gross wages  $14/3$ , from which deductions for frame-rent and seaming amount to  $2/2$ , leaving  $12/1$  clear wages ; and this may be considered an average rate of wages in this trade.

Almost all the above named trades are more or less combined.

Of those trades which are not combined, or where the unions, if existing at all, are inefficient, that of handloom-weaving is the chief.

In Scotland, which may be taken as a tolerably fair average of other parts of the kingdom, and where I found 51,000 handlooms south of the Forth and Clyde, the following is an outline of the average net wages earned on gingham and pullicates, or checked handkerchiefs, and muslins, comprising a very great majority of the whole number of looms. The weavers earn from  $4/6$  to  $7/$  net wages, and by far the largest portion of them under  $5/$  net, after the expenses they incur, varying from  $1/2$  to  $1/6$ , are defrayed. On fancy muslins, silk gauzes, and the commoner description of shawls, employing a small number of looms, compared with the foregoing, the wages vary from  $5/$  to  $8/$  per week, net. On the finer description of Paisley and Edinburgh shawls, from  $9/$  to  $14/$  are earned ; but where fancy patterns, involving considerable complexity in the mountings of the loom, are required, it is hardly possible to fix an average. Great skill, and sometimes the success of a parti-



cular pattern in a market, capricious and uncertain like that of fashion, will afford the skilled weaver 20/, 25/, and 30/ per week ; but these may be almost regarded as prizes in a lottery, and are as little reducible to calculation. The woollen weavers, of whom there are but few, and those isolated in particular localities, are well paid in Scotland, earning from 10/ to 20/ per week.

The woollen weavers work almost entirely in factories where the handlooms are placed, belonging to the manufacturer ; and I ought to have stated above, that in the few instances where this is the case with the gingham, checks, and other cotton fabrics, the wages are invariably from 40 to 80 per cent higher. To this singular feature I shall have occasion to refer hereafter. I subjoin a table, shewing the extraordinary decline of handloom wages during the last thirty years, in one of the chief trades.

*Pullicates and Ginghams.*

Period.	Average Net Weekly Wages.		Period.	Average Net Weekly Wages.	
	1st Class.	2d Class.		1st Class.	2d Class.
1810 to 1816	17/	24/6	1830	6/	7/6
1816 to 1820	10/	13/5	1831	6/	7/6
1821	9/6	12/2	1832	5/9	7/
1822	9/6	12/2	1833	5/3	6/6
1823	9/6	12/2	1834	6/6	7/3
1824	9/6	12/2	1835	6/8	7/9
1825	7/6	10/	1836	5/9	7/6
1826	6/6	8/2	1837	4/3	6/6
1827	7/6	10/	1838	4/6	7/
1828	6/6	8/5	1839	5/	7/6
1829	6/6	8/			

Agricultural wages, which, though not strictly within the scope of my subject, I was at some pains to collect in Scotland ; and as the following were derived almost exclusively from official sources, they may be worth recording, especially as the economy of agriculture in Scotland differs considerably from that of England.

I select some of the most important agricultural counties of Scotland.

“ In *Kincardineshire*, married male servants are generally engaged by the year, from Whitsunday to Martinmas ; and, in addition to the average rate of wages, L.12 : 12 : 10 per annum, and  $17\frac{1}{2}$  lb. of oatmeal per week, they have, in most parts of the county, a house and garden, with, in some places,  $1\frac{1}{2}$  pint of new milk per day, or 4 gallons of new milk per week, 2 bolls of potatoes, or ground properly prepared, which will grow  $\frac{3}{4}$  of a ton of potatoes, and 10 barrels of coals. Where the employer gives the milk of a cow, the money wages may average L.10, 10s., and the other items are given him.

“ The diet and other allowances given to the married male servant, exclusive of money-wages, have been estimated by intelligent agriculturists at L.14 to L.16 per annum.

“ Unmarried male servants are generally engaged for the half-year ; and in most cases they have an allowance of  $17\frac{1}{2}$  lb. of oatmeal, and 3 gallons of

new milk weekly, with a bed, and an apartment to cook in, and an allowance of fuel and light ; or they get their victuals in the farmer's house.

“ Board-wages for men are  $3/6$  per week ; and the diet, &c. exclusive of money-wages, have been estimated at L.12 : 4 : 5 per annum.

“ Married female servants are very seldom engaged by the half-year : they are almost always engaged by the day, or at piece-work, such as hand-hoeing of green crop, &c., and earn per day, without diet, 8d. ; at hand-hoeing green crop,  $1/$  ; and at harvest-work,  $2/6$  per day at piece-work.

“ Unmarried female servants are generally hired by the half-year, but are likewise hired by the whole year, at the average rate of L.5 : 16 : 6 per annum of wages, and are generally allowed washing, but not always.

“ Board-wages for women are  $2/6$  per week ; and their diet, &c. exclusive of money-wages, have been estimated at L.10 : 8 : 6 per annum.

“ Boys are hired as young as twelve years of age, and are reckoned boys until they can manage a pair of horses.

“ Board-wages for boys are  $2/6$  per week ; and their diet, &c. exclusive of money-wages, have been estimated at L.9, 19s. per annum.

“ Girls are not generally hired as agricultural labourers by the half-year. They are employed as day-labourers, at 8d. per day, without diet. For hand-hoeing green crop, or hired as harvest-la-

bourers, a girl of seventeen years of age will get the average rate of harvest-wages allowed to unmarried female servants.

“ Board-wages for girls is 2/ per week ; and their diet, &c. exclusive of money wages, have been estimated at L.9 : 4 : 5 per annum.

“ The rate of wages given to day-labourers supposes an average rate for the year.

“ The diet, &c. to harvest-labourers have been estimated for men at L.1 : 17 : 6, and for women at L.1 : 13 : 9, for six weeks.

“ In *Dumfriesshire*, the wages of ploughmen average 1/6 per day, with bacon, potatoes, oatmeal, and milk. Boys of twelve and upwards, 4/. Able-bodied men, wages per half-year, L.5, 15s. ; women, L.2, 15s., with board. Agricultural labourers, summer half-year, 18d. per day of ten hours ; winter half-year, 15d. per daylight to dark, without victuals. Cottages and garden, 50/ per year.

“ In *Roxburghshire*, ordinary labourers, 10/6.

“ Hinds or ploughmen paid wholly in money, and including house-rent, 11/9½.

“ Hinds or ploughmen paid partly in money and in kind, viz., portions of meal, barley, and pease, potatoes planted, and cow maintained, and also including house-rent, 12/5½.

“ Shepherds paid in kind, and also including house-rent, 12/9½.

“ Women’s wages, from 1st March to 1st December, 5/.

“ Do. from 1st December to 1st March, 4/.

In *Perthshire*, ploughmen’s wages for a twelve-month, money, L.13 ; 1 pint sweet milk per day, @ 3d., L.4 : 11 : 3 ; 2 pecks oatmeal per week, @ 1/, L.5, 4s., . . . . . = L.22 15 3

“ Lodging, say at the rate of 1/ per week, 2 12 0

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L.25 7 3

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“ Day or week labourers are paid during the winter months at the rate of 8/ per week ; and in summer, at the rate of 11/ per week ; in all, say L.24, 14s.

“ In *Fifeshire*, 1. An overseer who takes a small part in the manual labour of the farm, and at same time oversees and directs the other servants, earns 15/2 per week.

“ 2. A foreman or overseer who joins in all the manual labour, and at the same time directs the operations of the other servants on the farm under him, earns 11/ per week.

“ 3. Servants under any of the foregoing, who are married, and have a house and cow’s grass, and other perquisites, earn 9/1 per week.

“ 4. Servants who live in a bothie furnished by the farmer, who have part meal, part money-wages, with fire to make ready their victuals, 8/3 per week.

“ *Note.*—All farm-servants are engaged to labour from six in the morning to six at night, and thereafter to feed and do up their horses.

“ 5. Workmen employed on farms making drains, scouring ditches, and others who have a fixed daily wage in money commonly called day-labourers, 10/ per week.

“ *Note.*—This class of labourers work from six in the morning to six at night, but are frequently interrupted from work by inclement weather, particularly in winter, in which event they are only paid for the number of days or hours they are employed in working.

“ In *Dumbartonshire*, the different rates of wages now paid to the several classes of *agricultural* labourers, are  $1/6$ ,  $1/8$ ,  $1/10$ ,  $1/11$ ,  $2/$ ,  $2/2$ , and  $2/4$  per day, averaging  $11/6$  per week. But these two highest rates are rare; and from the information obtained by me, I believe that 10/ of weekly wages would be found to be the true average of the county, upon a minute investigation made in each parish.

“ In *Argyllshire*, the wages usually paid to *men* are from  $1/6$  to  $2/$  per day. If the *labourer* is employed for a length of time, he usually gets  $1/6$  a-day for all kinds of work, and at any time of the year; if only employed during harvest he usually gets  $2/$ ; when provisions are given, 6d. less is usually paid.

“ In *Wigtonshire*, average wages of a labourer

per day in the upper district of the county, in June 1837,  $1/3$  ; in December 1837,  $1/2$ . Do. in the lower district of the county, in June 1837,  $1/4$  ; in December 1837,  $1/3$ .

“ The average wages per annum of a farm-servant who lives in his master’s house, is, in the upper district, L.10 ; in the lower district, L.11.

“ Average wages per annum of a farm-cottar in the upper district, L.21 ; in the lower district, L.24.

“ In *Berwickshire*, yearly farm-servants have amounted, for these three years past, to fully thirty pounds per annum. This sum is paid to them partly in cash, and partly in grain, and includes the value of a cow’s keep on the farm. Agricultural labourers hired by the week, have been paid from 9/ to 10/ per week for some time past, and a number of the weavers of Dunse for a considerable period have received that wage for their out-door labour, and are now very expert spadesmen.

“ [N.B. There was a scarcity of labourers in this county last year, and wages were on the advance.]”

I am merely echoing the wish of every person interested in the accuracy, and conscious of the importance, of statistics on wages, when I venture to suggest the duty of the Legislature to order regular returns of the rate of agricultural wages, as well as of the price of food, to be struck by the Sheriff. It would give no additional trouble worth naming, and the information would be very valuable. The

foregoing returns were obtained through my own applications to the Sheriffs.

Agricultural wages in England vary so little and are so well known, that I need hardly do more than state that in the Cotswold districts, for instance, a shepherd receives 10/ weekly, a carter the same, day-labourers 8/ in summer and 6/ in winter, in addition to which, they earn about three guineas at harvest time, which will pay their rent. Women receive 6d. a-day in winter, 8d. in summer, and 1/ in time of hay and harvest time. Perhaps these are the lowest wages paid in any district in England. From 8/6 to 10/6 will be throughout the average wages of the great bulk of adult male agricultural labourers of England.

As no estimate of mere pecuniary wages is of any practical use without a knowledge of their real value, I subjoin an average of the prices of provisions in the manufacturing districts of England and Scotland, which will be found as nearly correct as any general average can be made. It refers to the last two or three years *before* the recent rise of the price of grain.

*England.*

Best beef, per lb.	.	.	.	0/6
Coarse do. ...	.	.	.	0/3½
Bacon, ...	.	.	.	0/7
Bread flour, per 12 lb.	.	.	.	2/6
Wheaten do. per lb.	.	.	.	0/2
Cheese, ...	.	.	.	0/7



Malt, per 9 lb.	.	.	.	2/4
Potatoes, per 252 lb.	.	.	.	3/6
Pork, per lb.	.	.	.	0/6
Coals, per ton (without carriage),	.	.	.	10/6

In Scotland the following have been the average prices of meal, &c. in the last few years :—

<i>Perthshire</i> —	1834.	1836.	1838.
Oatmeal, per boll of 140 lb.	14/5	21/5	
Best wheat, per Imp. qr.	44/ ² / ₄	52/1	
<i>Edinburgh</i> —			
Oatmeal, per boll,	11/10	17/2½	
Best wheat, per Imp. qr.	40/8	54/	
<i>Dumfries</i> —			
Oatmeal, per boll,	13/6½	20/10	
Best wheat, per Imp. qr.	40/10	52/10	

## CHAPTER II.

WAGES IN BELGIUM, AND PHYSICAL CONDITION OF  
THE ARTISANS.

Wages at Cockerill's Establishment, Seraing—Letter on the subject from Mr Waller—Wages in spinning factories; of town and country artisans and journeymen; agricultural labourers; handloom weavers, &c.—Universality of vegetable diet—Prices of food, &c.—Plan for ameliorating the condition of city labourers.—Wages in Holland.

Having summarily sketched, in the foregoing pages, the rates and variations of wages in the chief departments of home industry, I shall, ere I offer any remark on the features they exhibit, proceed to give as detailed a view of wages on the Continent as the relative importance of each country requires. I may state, that by very far the greater part of these returns are derived from official sources, on which implicit reliance may be placed, and which I was at great pains to corroborate or correct by personal inquiries, with the facilities to which I have already alluded. The returns from Wirtemberg, Holland, and partially from Prussia, are mostly derived from the “foreign

communications," collected by the Commissioners of Inquiry into the State of the Poor Laws, and of which I have availed myself, for the purpose of rendering the following sketch of continental wages as complete as it could be rendered. Unless otherwise stated, the period at which the wages were struck, is last year.

Owing to the great facilities afforded me through Her Majesty's minister at Brussels, and the introductions he kindly procured me, I am enabled to state the wages in Belgium with considerable detail; and I am bound, moreover, to tender my best acknowledgments to Monsieur Vandermaelen, the celebrated geographer and statist of Brussels, for his courteous and efficient aid. I need hardly add, that, from her peculiar territorial and maritime advantages, her mineral riches, and the laborious character of her artisans, and the enterprise of her manufacturers and merchants, Belgium is perhaps, of all other neighbouring countries, the one whose commercial and industrial progress is the most interesting to Englishmen.

The main sinew of Belgian prosperity is unquestionably her iron. I shall commence, therefore, with the wages paid in the various departments of the iron manufacture.

One of the largest establishments in the world for the manufacture of machinery, is that of Mr John Cockerill of Seraing, who is, moreover, at the head of 53 distinct establishments, including mines,

spinning and weaving factories, &c. At Seraing near Liege, 3000 workmen are employed. The wages are as follows:—The designers (*dessinateurs*) receive from 1500 to 2000 francs* per annum, or L.60 to L.80. The workmen are divided into brigades. There are 40 in the first process who earn from 3 to 4 fr. per day; the overseer is an Englishman with a fixed salary. The founders earn from 4 to 5 fr. per day. The nail-makers are 200 in number, chiefly very young men, who are paid per weight of nails, and earn from 3 to 4 fr., being responsible for losses. The manufacture of furnaces is very considerable, from 500 to 600 workmen are employed, earning from 4 to 5 fr.: this work is very laborious, and deafens most of the men. The forgers earn various wages, from 2.50 to 6 frs. In the higher skilled and more laborious departments, wages vary from 5 to 10 fr. per day. In the collateral workshops, all comprised in the establishment, there are 60 carpenters (model makers), who earn from 2 fr. 40 cent., also leather-workers at from 2 to 3 fr. per day; the out-door carpenters earn the same. There are 500 turners in wood, brass, and iron, who earn, for the most part, from 2 to 3 fr. per day, and the older ones double. There are 400 fitters and filers, who earn

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* I shall use the money of the country; a franc is nearly equivalent to tenpence, and is divided into 100 centimes, of which every ten are worth about one penny. Twenty-five francs 25 centimes make a pound Sterling.

from 2 to 3 fr. per day, and divide a perquisite of 70 florins according to the work they have done. The proving department (l'Atelier d'épreuve) is composed of the oldest and most experienced workmen, who earn from 4 to 5 fr. a-day. The assistants, mostly youths, earn from 1 fr. 50 cent. to 2 fr. per day. There are not above 6 or 7 English engineers now in the establishment, who earn from 10 to 15 fr. per day, and who are each superintendents of different departments.

The average wages of the adult workmen in this leviathan establishment are about 3 fr. 50 cent. The others in Belgium may be taken at about 10 per cent. lower. The ordinary hours of labour are 11 per day. The *miners* gain as follows :—

The superintendents	2 fr. 30 cent. per day.
The first class workmen,	2 fr. 25 cent. ...
Second do.	2 fr. 10 cent. ...
Youths, . . .	1 fr. 90 cent. ...
Do. under 12 . . .	1 fr. 30 cent. ...

Age of admission is 10 years. Period of work, usually 6 hours per day.

N.B. The food of these workmen is usually pork and bacon and potatoes. Coffee and gin are their ordinary beverage. The workmen on the surface earn from 2 fr. to 2 fr. 50 cent.

On the subject of the physical condition of the large and prosperous class of workmen, spread over the coal and iron districts of the provinces of Liege

and Hainault, of whose wages the above are averages, I received the following letter from T. Waller, Esq.

“ BRUSSELS, 11th Dec. 1838.

“ SIR,—Sir Hamilton Seymour being in England, it became my duty to open your letter, and to forward its inclosure, which I did. He would, I doubt not, be able to give you more ample information than I can; but on the subject of the wages paid to Mr Cockerill’s labourers, I find by some notes I made when I visited the establishment at Seraing last September, that the *lowest* wages paid to an able-bodied workman were 2 fr. 70 cent. per day, working 6 days a-week and 12 hours per day; this would be about 2/2 a-day, and they rise from that sum to 15 fr.

“ It so happens that there is, at this moment, an Englishman here in bad health, who has long been working at the iron-works near Charleroi. I learn from him that a young man first going there, would readily get 2 fr. a-day, and if industrious, would easily rise to 3 fr. or even 4½ fr. a-day; but that the works being two miles distant from the town (Charleroi), the expenses of living, and particularly lodging, are very heavy. The barrow work is principally done by women, who earn 1½ fr. per day.

“ The two pound loaf, of the quality of bread usually eaten by the lower classes at Brussels, costs 32 cent. (3¼d.,) and it would probably be less dear

elsewhere ; from what I could learn at Liege, the expenses of living are little more than two-thirds of what they are at Brussels, but this may be attributed to the extreme cheapness of vegetables, which form a principal article of consumption for the poor.

“ I should not have troubled you so early with an answer to your letter, had you not expressed anxiety about the rate of wages paid by Mr Cockerill, of which I had made a note at the time. I will endeavour to procure every information I can, respecting the general prosperity of the Belgian lower classes ; but as far as the observation of a traveller goes, in a very long walk I took on the Faubourgs of Liege, just at the time of their returning from their labour, for the purpose of observing them, I was struck by the extreme comfort of their appearance, both as to dress (for I saw no children even without shoes and stockings), and as to their dwellings, which at that hour were very generally open.

“ I must beg your pardon for trespassing so far on your time, but I am much interested on the subject, and have therefore perhaps been drawn to a greater length than is proper. I have the honour to be, Sir, your very obedient servant,

“ T. W. WALLER, ”

“ Her Majesty’s Chargé d’Affairs during the absence  
of Sir Hamilton Seymour.

“ To J. C. Symons, Esq., &c.”

In cotton-spinning factories, the chief of which are at Ghent, the general rate of wages are—

	Fr.	Cent.	
For adult men, spinners, &c. from	2	50 to 3	fr. per day.
For apprentices from 12 to 16,	0	75 to 1	fr. ...
For girls, . . . . .	0	75 to 1	fr. ...

The following are the wages which I struck from Mons. de Bast's factory :—

135 weavers were paid 1800 fr. per week for 14 hours' work per day, making an average of 13 fr. 33 cents. each per week.

In the spinning-mill 143 persons are paid 1400 fr. per week, making an average of 9 fr. 79 cent. per week.

A good spinner will earn 24 fr. per week, out of which he has 7 fr. 50 cent. to pay to his piecer ; spinners are paid 23 to 25 cent. ( $2\frac{1}{4}$ d to  $2\frac{1}{2}$ d) per kilogramme,  $2\frac{1}{3}$  lb.

During six months last year, Monsieur Bast's mill worked 1950 hours, or 13 hours daily, reckoning 150 working days in the half-year. Just then I was assured they worked from 14 to 15 hours. However this may be, the people in the mills, especially the females, looked exceedingly well ; and a gentleman who had seen mills in Scotland, and was with me, was also of opinion that the people in the Ghent mills looked quite as well as those he had seen in Scotland.

Another cotton-spinner writes : " I have several spinners who employ an equal number of little girls,



though the number will soon be augmented. These spinners gain about 17 fr. per week, out of which they have to pay 2 or 3 fr. to those children who assist them.

In the linen-spinning factories the men are paid at the rate of 1 fr. 35 cent. for every 12 hours' work. No women are as yet employed in these factories, though the want of more hands will probably introduce them ere long. The children employed are about one-quarter the number of the men.

In the woollen-spinning factories the wages are nearly the same as in the cotton factories.

In the dyeing establishments of forty work people, the following were the wages :—

5 earned 2 fr. 20 cent. per day.					
15	...	1	...	80	... ..
5	...	1	...	60	... ..
5	...	1	...	40	... ..
5	...	1	...	20	... ..
5	...	0	...	80	... ..

No females are usually employed in these works.

The following is a summary of the rates of labour in town and country, in the other chief arts and trades :—

Trades.	Town Wages.	Country Wages.	Hours usually worked.
	fr. ct.	fr. ct.	
Masons, Carpenters, } and Blacksmiths, }	2 5	1 60	11½
Day-labourers, . .	1 35	~~~~~	11½
Saddlers, . . . .	2 25	~~~~~	~~~~~
Wheelwrights, . .	2 25	~~~~~	~~~~~
Compositors, . . .	3 0	~~~~~	~~~~~
Lithographic Printers,	5 0	~~~~~	~~~~~
Cabinetmakers, . .	3 0	~~~~~	~~~~~
Bleachers, . . . .	~~~~~	2 0	16 in summer
Tailors and Shoe- } makers, . . . }	2 50	{ 1 60 } { or with food 75 }	11 to 12
Sawyers, . . . .	3 25	~~~~~	~~~~~
Forgers, . . . .	6 0	~~~~~	~~~~~
Coach Painters, . .	2 25	~~~~~	~~~~~
Paviors, . . . .	1 80	~~~~~	~~~~~
Labourers at Canal } wharfs, . . . }	1 70	~~~~~	~~~~~
Miners, . . . .	~~~~~	2 50	10

Agricultural labourers are paid as follows :—

Provinces.	Conditions.	Men.	Women.
		fr. ct.	fr. ct.
Brabant,* } Westpellier }	{ with food . . { without food .	0 63 0 91	0 31 0 80
West Flanders	{ with food . . { without food .	1 ~~~~ 1 20	0 ~~~~ 0 80
Liege . . . .	{ with food . . { without food .	1 18 ~~~~~	0 88 ~~~~~
Luxemburg . .	{ with food . . { without food .	1 ~~~~ 1 0	0 ~~~~ 0 85

The wages of agricultural labourers vary considerably in East Flanders; they are still lower than in West Flanders, where there are more factories.

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* N.B.—Shepherds are well paid, and earn 54 francs a-year, their board, and 30 sheep, or 272 francs without sheep.

In Liege and Namur, in the heart of the manufacturing district, agricultural wages are nearly double what they are in the purely agricultural provinces. In the province of Liege it appears that, owing to the great demand for hands in the coal and iron works, farm-labourers receive more wages with board than they receive in Luxembourg without it!

The hand-loom weavers are divided into classes, which differ so exceedingly from each other in the main characteristics of their trade and condition, that no single average can be struck. I shall give, therefore, a summary view of the earnings, &c. of each class.

The cotton weavers inhabit chiefly the Eastern Flanders, Ghent, St Nicolas, &c.

The first class of cotton weavers gain 12 fr. average per week,—the second class 8 or 9 fr.,—the third class, consisting of apprentices, old men, &c., gain from  $3\frac{1}{2}$  to  $4\frac{1}{2}$  fr. per week. It is impossible to fix the gain of the women, for their time, even in pure weavers' families, of whom there are few, is occupied in great part by household duties, mingled with winding the bobbins, &c.

The hours of work vary from 12 to 15, but are seldom less than 13, meal-times excluded.

They warm themselves with a poële or stove, which serves alike for the weaver and the family, and as coal is cheap, but little money is spent on fuel. The loom and its appendages are at the cost of the weaver, but the manufacturer finds the

winding. There has been no material variation in the rate of wages for some years past.

The average net gain per week may amount to about 8 fr. for adults, on which a man may live very well : but as hands are often scarce, and the iron districts, Liege, Namur, &c., drain men from the Flemish provinces, 8 fr. is an inferior wage, and consequently, a man who is a regular weaver is generally in some way or other incapacitated for more profitable labour. This refers to cotton weavers only, their wages are necessarily lower, for the power-loom has recently deprived many of them of the calicoes they used to weave ; and the demand for labour, always increased in some other department of industry, by an extension of power machinery, has hardly perhaps had time to realise its compensating effect.

Agricultural employment is much intermixed, even with cotton-weaving. As a proof of this I may name, that one of the chief reasons for the increasing adoption of power-looms, is said to be that of the non-continuity of hand-loom work, owing to this agricultural labour ; the consequence being, that, in order to get in 100 pieces in a given time, yarn for 200 pieces must be given out.

Verviers is the capital of the cloth manufactures, of which immense and numerous mills flank the road from Verviers to the Prussian frontier. I learnt that the wages in these factories varied from 12 to 20 fr. per week for weavers.

Many of the looms are in the weavers' houses, which I visited. I found most of them stated 12 fr. as their clear weekly earnings, and one man who was weaving a coarse cloth, told me that his master allowed him 5 fr. per week when ill.

Many of the better hands make 14 and 15 fr. per week with ease, working 12 hours per day.

The Belgian silk weavers are chiefly at Antwerp, and earn on the average 1 fr. 50 cent. per day; they weave merely plain silks.

Most of the linen weavers weave the plain shirting and sheeting. These are completely intermixed with the agriculturists. A small farmer has generally two or three looms which he or his servants use when not employed out of doors. It is altogether a domestic art, and the web when woven is taken by the weaver to the nearest market, measured on a large table, and marked by a person who holds that office under the municipal government, and whose sole occupation it is to mark these cloths, without which the merchant will not buy it. No regular wages can be attached to this work; however, where a man weaves constantly, he can earn from 1 fr. 25 cent., to 1 fr. 50 cent. per day.

There are some damask weavers at Courtrai, &c. who work solely in factories, and who gain from 6 to 14 fr. per week, according to their skill. They have no deductions worth naming.

The food of the working classes, not only of Belgium, but of all the countries of the Continent, con-

sists of vegetables ; meat is not the food of the working classes, either of Belgium or of any other country. It is the relish used with food. The Italian eats maccaroni ; the staple food of the French and Germans is bread or cabbage ; of the Irish, potatoes (and the consumption of potatoes, as a main article of sustenance, is by no means confined to the United Kingdom, but is rapidly spreading over the Continent). It is a beautiful fiction to describe John Bull as eating beef. If “ John Bull ” means two-thirds of the population, John Bull is living on vegetable diet ; and not above one-third of him is nourished by meat. The Indians eat rice ; the West Indians, yams and bread tree ; the Africans, dates ; in fact, a fraction, and that a very small one, of mankind are carnivorous.

The workmen employed in the iron-works of the Hainault, Liege, and the machine-making factories both of Seraing, Bruxelles, Ghent, &c. live on potatoes and vegetables. with a piece of meat among them, for dinner regularly ; coffee of chicory ; and on the Sundays, spirits in moderate quantity. These are the best paid.

The workmen who come under the second class are the masons, blacksmiths, carpenters, &c. of the towns, the woollen factory and domestic weavers, who live nearly in the same manner, but consume either a less portion of meat, or take it only three or four times a-week.

The cotton-weavers and factory workmen live

less well. Potatoes and vegetable soup form their chief food, with bread half rye and half wheat; coffee, and occasionally a glass of spirits, and commonly brown beer, are their beverage. This beer is particularly nasty, but, I believe, wholly free from *coccus indicus*, &c. &c.,—pure malt, hops, water, and salt, ill proportioned, and execrably boiled.

The linen-weavers and the common labourers are identified, and consume potatoes and rye-bread, which is a common article of consumption in Belgium, and indeed generally on the Continent among the poorest classes, vegetable soup, rarely flavoured with meat, coffee of chicory, beer, &c.

However coarse the food may be on which the Belgian artisan subsists, the abundance of their meals is most striking. I was constantly in the habit of entering their dwellings at meal-times, and I uniformly found the contents of the table even greater than the capacity of their appetites.

Agricultural labourers are well fed: they have bread and coffee in the morning, vegetable soup for dinner, with meat three times a-week, with beer. The poorest of all eat rye-bread, and potatoes, with coffee.

With regard to the prices of food, an able-bodied man will support himself comfortably on 7d. per day in Belgium in the country. Bread, such as labourers eat, is about 1¼d. per lb. in the country; other food in proportion.

The price of grain was as follows, per hectolitre, or 22 gallons.

	1834.		1835.		1836.	
	fr.	cent.	fr.	cent.	fr.	cent.
Wheat, white,	13	19	14	3	15	56
Do. red,	14	53	15	8		
Rye, . .	8	41	9	4	10	5
Oats, . .	5	90	6	57		
Potatoes, .	3	21	3	90		

The cottages of the country peasants and artisans are proverbially neat and clean, and so I universally found them ; but my visits to the poor districts in Brussels presented a very different result. The houses where the poor live are dirty, close, crowded, and offensive.

A commission has been formed recently to inquire into the condition of the working classes in Brussels, which entirely confirms my impression, though I was not acquainted with its report till after my return to London, and I wish to direct attention to the plan proposed by this committee (composed of Messrs Moeremanns, Spaak, and Duepetiaux) for the effectual remedy of an evil, which exists more or less in all large and crowded cities. It is briefly this : For government or a company to build enormous dwelling-houses for the poor, with hospital, library, common fire, kitchen, gardens, baths, schools, &c. attached ; the rooms or apartments to be let out at the lowest possible terms. Other minor regulations are attached to



the plan. The principle on which it is founded is expressed in these words: “*L’isolement de l’ouvrier* is one of the causes, the most effective, of his malady; the remedy is in association.”

The following table is put forth by the Commission, of the probable expense of a family of six persons during a week in such an establishment. I insert it, moreover, as evidence of the comparative lowness of the price of food and clothing in Belgium. Its source attests its authenticity.

Lodging, . . . . .	2 fr. 50 centimes.
Food, at 1 fr. 50. cent. per day,	10 ... 50 ...
Subscription to Infirmary, fire, &c.	1 ... 0 ...
Schooling of children, . . . . .	0 ... 50 ...
Pension of old men, . . . . .	1 ... 0 ...
Clothes, . . . . .	2 ... 50 ...
Furniture, amusements, &c. . . . .	2 ... 0 ...

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Fr. 20

In *Liege*—

Meat averages, per $1\frac{1}{16}$ lb. avoirdupois,	45 centimes.*
Beer, per imperial quart, . . .	15 ...
Wheat bread, per lb. avoirdupois, .	16 ...
Common bread, do. . . . .	14 ...

In the agricultural provinces, provisions are at least 15 per cent. cheaper.

The following are among the notes collected by the Poor-Law Commissioners in 1834; which shews that wages have greatly increased, owing to the restoration of domestic tranquillity:—

“ In the commune of Boom, a parish in the dis-

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* About 4d. per lb. English.

trict of Contich, province of Antwerp, there are three sorts of workmen: 1. Those that make bricks; 2. Those employed with the farmers; 3. Watermen. The salary of a brickmaker in summer (without his food) is 275 francs, or L.10 : 16 : 8; and in the winter, 90 fr. or L.3 : 10 : 10½, or L.14, 7/6½ a-year. The salary of a workman employed with the farmers, receiving his food, is, in summer, 120 fr. (L.4 : 14 : 6); and in the winter, 50 fr. (L.1 : 19 : 4½), or L.6 : 13 : 10½ a-year. The watermen navigating on the interior waters are paid by the week, at the rate of 7 fr. 25 c. (5/8¾), besides their food. During the winter season they are without employ several months. A labourer might gain per year 350 fr. (L.13 : 15 : 7½) if he works daily summer and winter. There are labourers' habitations to which no land is annexed, others have five to six verges. But the greatest part of the labourers' hire land separated from their habitation, which they cultivate for their own use, and which consists of 30 or 40 verges decimal or metrique système.”*

In and near Ostend, “A skilled artisan earns in summer 1 fr. 50 c. to 1 fr. 80 c. per day (1/2 to 1/5). An unskilled, 75 c. to 1 fr. 20 c. (7d. to 1/). In winter, the first has 1 fr. 10 c. to 1 fr. 40 c. (10d. to 1/2); the second, 55 c. to 82 c. (5½d. to 8d.). An

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* A verge is the four-hundredth part of a bonnier; a bonnier is equal to  $2\frac{45}{100}$  English acres. Forty verges are about a quarter of an acre.

agriculturist earns in summer 1 fr. 25 c. (1/); in winter, 1 fr. 10 c. ( $10\frac{1}{2}$ d.); when boarded, 55 c. ( $5\frac{1}{2}$ d.) is deducted from his wages. Very little difference is made between skilled and unskilled agriculturists. Wages are higher in the strong lands of the north, and lower in the sands of the south of the province.

“ Neither civil nor religious instruction costs any thing to this class of people. House-rent, food, and clothing, are their chief expenses. House-rent varies from 40 to 60 fr. per annum (L.1, 12/ to L.2, 8/). Food is at least 55 c. ( $5\frac{1}{2}$ d.) per day for a man; 45 c. ( $4\frac{1}{2}$ d.) for a woman; and 28 c. ( $2\frac{3}{4}$ d.) for a child of 10 to 14 years; but they economise by living together. 60 fr. (L.2, 8/) for a man’s clothing, and 40 fr. (L.1, 12/) for a woman’s, may be considered as the minimum, making together, for a man alone, about 300 fr. (L.12) per year; for man and wife, 510 fr. (L.20, 8/); and 110 fr. (L.4, 8/) more per child: yet in the large towns this sum would not be sufficient.

“ The rent of a labourer’s habitation in a town is from 50 to 60 fr. (L.2 to L.2, 8/); in the country, 40 fr. (L.1, 12/), including the sixth part of an acre of land. The first may be worth from 800 to 1000 fr. (L.32 to L.40); the second 500 fr. (L.20), on account of the deficiencies in the outlettings, and of the continual repairs which are incumbent upon the proprietor.

In Holland, where I have not been, the follow-

ing wages, taken from the district of Amsterdam, will be but very little different now.

Shoemakers and tailors, by the week, 8/4 to 20/.

At the king's dockyard, the rate of wages is lower : that of the 1st class being only 2/6 per diem.

At Haarlem, a few manufactories on a smaller scale are still in existence, the work performed in which is paid by the piece ; but the artisans, who must provide their own board and lodging, cannot earn more wages by the week than the under-mentioned rates :

In twist, thread and linen manufactories, in summer :—

Artisans of 1st class,	.	.	10/	to	10/10
2d ...	.	.	8/	to	8/4
3d ...	.	.	6/	to	7/6
4th ... and women,			4/4	to	5/
Children, from 9 to 16 years,			0/8	to	3/
In winter, one-fourth less.					

Tape :—Artisan 1st class,	.		7/6
Children, winding thread,			0/8 to 1/

Weavers :—Paid according to work performed at their own houses, per week, 10/ to 13/4

#### NORTH HOLLAND.

Oil Mills :—1st class labourer,	.		13/4	to	15/
2d ... ..	.		10/	to	11/8
3d ... ..	.		6/8	to	8/4
Paper mills :—1st class,	.		10/	to	13/4
Saw mills :—1st class,	.		11/8	to	13/4
2d ... ..	.		3/4	to	10/
3d ... ..	.		3/4	to	5/

By the week, providing their own board and lodging ;  
fire-wood free.

Agricultural labour :—1st class, L.6 13 4 to L.8 6 8  
2d ... 3 6 8 to 4 3 4

By the year, receiving board or lodgings.

Day labourers :—1st class, . . . 1/8  
Ditto 1st ... in summer, 1/8  
in winter, 1/ to 1/4  
2d ... in summer, 0/10 to 1/  
in winter, 0/8 to 0/10

By the day, providing their own board and lodging.

[Since the above pages were in the press, I have received, through the Board of Trade, for my official report, a variety of returns on wages in Belgium ; but as they are derived from sources of which the authority is questionable, I prefer confining my statements to the results of Monsieur Van der Maelen's researches, and of my own personal investigation.]

## CHAPTER III.

WAGES IN FRANCE AND PHYSICAL CONDITION OF  
THE ARTISANS.

Alsacian wages, &c.—Lyonese wages, &c.—Tarare Muslin weavers—Norman wages—Elbeuf; Letter from the Mayor—St Quentin—Ronbaix—Woollen factory—Villages in the North—Prices of food—Parisian wages, &c.

Monsieur Dupin has stated 2 fr. 26 cent. per day as the average payment in the northern, and 1 fr. 90 cent. as the average in the southern provinces. I believe this to be perfectly correct. There are numbers of trades wherein 1 fr. 50 cent. is the average rate of wages per day, but a far greater number earn 2 fr., which, taking France through, I believe to be as near an estimate as can be formed. They who subsist entirely on the profits of weaving plain goods, fall below 1 fr. 25 cent. or 1/ per day net wages, but these form a small and insignificant fraction of the working adults of the country.

I will give the rates of wages in the chief departments of manufacturing labour *seriatim* as I visited the districts. Alsace is the chief cotton district.

In Messrs Schlumberguer's and Bocard's mills

at Guebwillers, the wages were stated to me to be—

Spinners,	2 to 3 fr. per day.
Women,	1 fr. 50 cent. to 2 fr. per day.
Girls,	1 fr. per day.
Slubbers,	1 fr. 40 cent. to 1 fr. 50 cent. per day.

In the “Rapport,” however, given in by these gentlemen in the year 1829, to a government commission of inquiry in France, I find the following different return :—

Men,	1 fr. 40 cent. to 2 fr.
Women,	1 fr. to 1 fr. 20 cent.
Children,	40 cent. to 70 cent.

The increased aptitude of the workmen since 1829, may in some degree account for this discrepancy ; but from other inquiries, I am convinced the former of these statements is the maximum, rather than the average rate of payment.

The hours of labour always exceed 13, and are often 14 of actual work, children as well as adults. There is no factory regulation law in France.

The wages of the hand-loom weavers are on the whole, the cost of living being taken into account, higher than in Scotland. In Normandy and in some few places in Alsace they are as low ; everywhere else they are higher, or to speak more correctly, everywhere else have the hand-loom weavers of France a greater amount of the necessaries and comforts of life.

I have shewn that the reverse is the case with all other employments.

It is unnecessary to detail the wages of the handloom weavers, which vary for the most skilled class from 6 to 9 fr. per week ; for the second rate class from 4 fr. 50 cent. to 6 fr. ; and for women and children, forming the third or lowest class, from 2 fr. to 4 fr. 50 cent. These are net wages ; the manufacturers either beaming the warps and furnishing the looms in factories, or paying equivalently. Something more, however, is generally earned in the factories ; for the weavers prefer usually working at their own homes. The average net wage of an adult Alsace weaver will not exceed 5 francs ; that is, a piece of calico of 70 porters, (French) 28 shots in a quarter of an inch, is paid about 5 fr. the cut of 25 French ells (of 44 inches) ; a good weaver will perhaps weave five ells per day, including lost time, or 6 francs gross wages.

The homes of the working classes are for the most part dirty, comfortless, and evincing every symptom of bad management and poverty combined. Even those who have children in the cotton mills, do not keep up any appearance of comfort. I am aware that, passing immediately from Switzerland, where the cottages are pictures of neatness and comfort, I was apt to be too unfavourably impressed with the very inferior condition of the Alsatian artisans. I shall, however, corroborate my own view of the matter, by a quotation from the opinion of one eminently qualified to form a judgment of the mental as well as bodily condition of those around



him. In the mean time, I may remark, that I believe that the Alsatian weavers are, generally speaking, not without a sufficiency of food, though in all other respects they are certainly ill off. In the mountains of the Vosges, the peasantry are worse off still, and there looms are also found, but chiefly on the system of the "customer" weavers of Scotland, though not exclusively, for there are some who weave for manufacturers at very low wages.

On this subject, Mr Nicholas Schlumberguer of Guebwiller, an eminent manufacturer, thus writes to me :—

"On the question which is engaging your attention, it may be said in general, that upon the whole the working class can live much more cheaply in France than in England, and consequently the rate of wages is lower in our country than in yours. It may also be said that the working classes are less given to the vice of drunkenness in France than in England; but they are not moral for that; their want of prudence is excessive; they live from hand to mouth (*au jour le jour*); the least illness, or want of work at all prolonged, plunges them into a state of profound misery. They feed themselves irregularly; their houses are dirty, which contributes to render their physical state worse than that of the English workmen.

"The moral and physical condition of the working class in general remains nearly stationary; there are made here and there efforts for its ame-

loration which have had happy results, but, up to this time, the opposition of the great majority of the manufacturers has prevented the Government from proposing to the Chambers any regulations analogous to those which exist in England, on the age of admission of children in the factories, and in the duration of work."

At Lyon, the long stagnation incidental to the American crisis caused, since Dr Bowring's visit, considerable distress ; from the effects of which, the recent development of trade has but just relieved them. Neither have all the departments of Lyonese weaving yet resumed their former rates of wages. In the plain goods (*articles unis*), in which Zürich is very successfully competing with France, little is now done at all in Lyon. This description of goods has been carried (since Dr Bowring's visit in 1834) almost entirely into the country, where, of course, food and lodging is to be had at much lower prices, and where, as the workmen are more scattered and less able to concert measures for keeping wages up, wages are more easily lowered. The necessity for lowering them, however, was apparent to me whilst at Zürich ; and I was as much convinced by what I saw there, that Lyonese wages in plain silks must fall, as if I had already ascertained the fact.

The conflict which formerly existed between the *chefs d'atelier* (who are the owners of the workshops, containing from 1 to 10 looms), and their

journeymen called *compagnons*, goes on in the country just as much as it formerly did in Lyon. In the town much greater harmony subsists as wages have for the most part risen. It is usual for the chef d'atelier to share the wage paid with the weaver or compagnon who weaves the web, the former supplying lodging and upholding the loom and defraying every contingent expense.

The following are examples of the changes in the rate of payment by the fabricant :—

	1834.		1838.	
	fr.	cent.	fr.	cent.
Common plain velvets, (per ell)	3	50	5	50
Light plain satins, . . . .		60		70
Gros de Naples, fine quality, plain,		70		90
Do. light do.		50		60
Common figured silks, . . .		80	1	0
Rich do. do. . . .	1	0	1	50

There are among the figured silks for waistcoats, articles paid as high as 5 and 6 fr. the ell. There are a new description of shawls, of which the ground is thick satin with velvet flowers, having the appearance of being embossed on it, of singular beauty and elaborate design, for which as much as 12 fr. per day gross wages are paid to the chef d'ateliers.

If a chef gained 2 fr. clear per day in 1834. he will gain at least 2 fr. 50 cent. now, and the compagnon must be an idle fellow if he earns less than 1 fr. 75 cent. Many earn upwards of 2 fr. per day.

It appeared also that a great moral improvement had taken place in Lyon, in consequence of the re-

moval of some of the lower paid weavers to the country.

The independence of the weavers of Lyon is very great, and this is caused by the character of the industrial system pursued. The fabricant, of whom there are between 500 and 600 in Lyon, merely gives out the pattern and silk to the chef d'atelier, to whom is intrusted the entire task of producing the web through all the manifold difficulties of the complex operations incidental to the manufacture. The money paid is the object of separate barter, and is generally fixed at joint meetings of weavers and the fabricans. Continual disputes used to occur between them, which are now for the most part transferred to the chef d'ateliers and their compagnons, the latter having become extremely exorbitant in their demands. These form the least respectable class of weavers in Lyon. Having no fixed home they are a fluctuating population, and have neither the stability nor the activity of those who are intrusted with responsibility, and to whom it imparts respectability. They sometimes, however, amass considerable savings, and occasionally, though not often, establish themselves as chefs d'atelier.

In addition to the compagnons or journeymen, there are also apprentices of both sexes to whom the master teaches his trade, either for a sum of money or a period, during which the profits of the apprentice's labour belong to the master. When they are sufficiently practised in their art, the master

gives the apprentice a task to perform, and whatever they do above is their own profit. If they fail in doing it, an indemnity is recoverable by the master.

With the high wages gained by the weavers, they are of course enabled to live well, and spend no inconsiderable sum on the aggregate in their Monday and Sunday recreations. The usual meals, and their cost, of a *compagnon* or common weaver, are thus accurately stated by Dr Bowring:—"1½ lb. of bread, 30 cent., or 3d. (the lb. being 18 ounces, and the best bread); ¼ litre of wine, 12½ cent. ; dinner, 25 cent. ; cheese, 10 cent ; supper, 10 centimes." The dinner will consist generally of soup, and often of a bit of meat in it. Rent varies from L.3 to L.5 per annum, for two or three rooms. Many of the *compagnons* are boarded by their employers at about 5d. per day. Hours of work vary from 12 to 15.

In appearance, the weavers are an emaciated, miserable-looking set of beings. They are diseased and undersized. The parts of the dirty town of Lyon in which the weavers are principally located, are close and filthy, especially those lying between the Saone and the Mountains de St Just and de Fourvières. Many individuals are often crowded together in a small apartment, one room frequently containing the man and his wife, two or three children, and a workman and his wife.

Lyon, however, is peculiarly exempt from epidemic disease, and was wholly free from cholera, though exactly in the line it took in 1832, and

built, moreover, on the banks of two large rivers. I am persuaded that it owes this entirely to the large lime-kilns in the suburbs ; the exhalation of which perceptibly impregnates the atmosphere ; and I believe this to be a perfect preventive of cholera.

Tarare, near Lyons, is the chief muslin district of France, and the following extract from a letter, from an intelligent manufacturer, conveys the chief information I collected.

“ A portion of our weavers in the country, gain only 75 cent. ( $7\frac{1}{2}$ d.) to 1 fr. 25 cent. (1s.) per day ; those of the town, from 2 fr. to 2 fr. 50 cent., and sometimes 3 fr. according to their skill. The manufacturer furnishes only the reed and the upper mounting, all the rest being at the expense of the workmen. No deduction is made from the wages for the use of these articles.

“ Those who are in the town weave all the year, those in the country, *at the outside, not above seven months in the year* ; the remaining five months being occupied in agricultural employment. As nearly all the fathers of our weavers in the country are small proprietors themselves, the weavers are connected with the land, and are consequently not turbulent. Our industry, therefore, escaped the disasters, of which Lyon was the theatre in 1834 and 1832.

PHIL. LEUTNER, Père.”

It appears to me, however, that the actual earnings of the weavers have not fallen in the same

proportion as the rate of wages; except for the town weavers, it is, I need hardly remark, impossible to form any accurate estimate of their real condition, by the mere money-wages they receive; for the profits of agricultural occupation render their weaving wages merely an indefinite portion of their total income, which can only be estimated approximatively.

It may be safely assumed, that a town weaver nets on the average 30 sous per day, and the country weaver 25, for 14 hours' work. They appear to me to work as hard as the Scottish weavers, though scarcely in the same manner: the latter will work desperately for 3 or 4 hours, in order that he may loiter and stand at his door an hour; the Tarare weaver, and the remark holds good elsewhere in France, keeps continually shuffling along, if I may so express it, and completes as much in 14 hours' sluggish work, as the Scottish weaver by broken portions of quicker work, extended over the same period.

The character of the Tarare weavers, is that of a quiet simple people, who have few wants, and but limited intelligence, in spite of the recent efforts of the priests to enlighten them.

In Normandy, the wages are very low among hand-loom weavers, who scarcely gain as much as those in the west of Scotland. They are the worst off in France, simply because they are rather more numerous in comparison with the demand



for their labour. And the reason why they are so numerous, results from the easy sort of work done in that part of the country. Instead of muslins and silks, as at Tarare, Mulhousen, or Lyon, requiring skilled hands, and therefore, limiting the number of those in the field of competition, Normandy produces pullicates, domestics, and other coarser articles. Consequently, I found the weavers there, *who had no means of other employment*, as badly off, or very nearly so, as in the west of Scotland, with which the goods produced by the Norman looms are in direct competition in third markets, whilst they nearly exclude us from their own.

At the same time, whilst the wages of Norman weavers are, if anything, lower than in Scotland, it must not be forgotten, that provisions are at least 20 per cent. cheaper, so that no great difference is perceptible in the condition of the two classes. And were I to be forced (putting the love of country aside) to choose, whether I would be a pullicate weaver in Scotland or in Normandy, I think I should be sorely puzzled which to select; or rather, which to consider the greater infliction.

The farmers here adopt the same custom towards the artisans as in Scotland, of allowing them land to set potatoes in, a custom very prevalent in Normandy.

The peasants live chiefly on vegetable soup, and the coarsest sort of bread.



The following are the ordinary wages earned in the Norman spinning mills, with which I was favoured by my friend M. Fauquet Lemaitre, one of the leading manufacturers of France :—

Spinners from 15 to 20 fr. per week, working from 80 to 84 hours. Women and girls, employed at the carding and drawing operations, gain from 7 to 10 fr. The power-loom weavers earn from 12 to 16 fr. per week.

Elbeuf is the largest cloth manufactory in France, and is rapidly increasing in the extent of its trade. The weavers here are in very easy circumstances. As there are no particular results from my inquiries at Elbeuf, beyond what are contained in the following letter to me, from the Maire of Elbeuf, who is also a very large manufacturer, and a most intelligent person, it will suffice to transcribe extracts from it.

“ The working class of our town of Elbeuf, enjoy in general easy circumstances ; they have always lived happily for two very powerful reasons ; the first, because our manufacturers are constantly in their workshops, work themselves with their workmen, know their wants, and identify themselves with all that happens to them for good or evil : the second, because the price of weaving varies very little ; the proportion between times of prosperity and times of distress, being 20 per cent. at most, in the amount of wages, and that only in certain departments.

“ The work people are divided into three classes, —the adults, the day-labourers, and the weavers.

“ The adults receive a salary which varies according to their age, their strength, their intelligence, their age, from 75 cent. to 1 fr. 50 cent.; the largest number receive the average of 1 fr. 10 cent. 1 class as adults, young men from 12 to 18 years of age. Children from 9 to 12 gain 50 cent. to 75 cent. per day.

The day-labourer taken at large from 18 years to 60, are paid from 1 fr. 50 cent. to 2 fr. per day, 1 fr. 75 cent. being the average. This class is but little intelligent.

“ The weaver gains from 2 fr. to 3 fr. per day; the ordinary average being 2 fr. 50 cent. The women receive from 75 cent. to 1 fr. per day. The young girls from 9 to 16 years old, earn from 50 cent. to 80 cent. The day's work begins at five in summer, and ends at eight in the evening; half an hour for breakfast, and an hour for dinner. In winter they work from 7 to 10 hours.

At St Quentin in the north of France, the working classes make no complaint; they seem all of them pretty well supplied with the necessaries and many of the comforts of life. They are all well clothed, and have plenty of vegetables to eat; little meat is consumed or desired by them. In the country it is a common practice, as in Normandy, for the farmers to give the use of land for setting potatoes; only in the neighbourhood of St Quen-

tin the farmers usually find both seed and manure, receiving half the produce as their share. This is an advantage to the labourer, or he would not avail himself of it, though I have heard it doubted.

I was at some pains to estimate the wages in the spinning factories of St Quentin, and I found 7 fr. (5/10) rather above the average per head paid per week, taking men, women, and children collectively. In Lancashire it is 10/6.

The rates paid are as follows at St Quentin :—

	Fr.	Cent.		Fr.	Cent.
A spinner having under him at his own cost, two piecers, earns per day, . . . . .	3	75	to	4	50
A woman or girl, . . . . .	0	90	to	1	20
The piecers (children), . . . . .	0	60	to	1	0
Power-loom weaver having two looms, . . . . .	2	50			
Dressers, . . . . .	3	0	to	3	50

“The weavers in the country gain—Children, from 6 to 12 sous (3d. to 6d.) per day. The women, from 14 to 20 sous (7d. to 10d.) The men, from 30 to 60 sous (1/3 to 2/6.)

“The work-people in the town, of all ages and sexes, work 13 hours by day. In the country the hours are not regulated, but they work nearly as much as in the town, especially in winter. Nearly the whole of the artisans are paid by the piece, whether weavers or cotton-spinners.”

From my own investigations I am convinced that

30 sous (15d.) is rather above than below the average of the adult male weavers' earnings in the country.

Day-labourers earn from 10 to 12 fr. per week. Mons. Lemaitre is further of opinion, that, though there is "very great distress" among the manufacturers and fabricans, there are very few of the working classes without employment. There is no question that the distress among the latter is confined to the weavers.

The price of food was as follows when I was at St Quentin:—

*Bread* (white) 36 cent. per kilo., or  $3\frac{1}{2}$ d for  $2\frac{1}{8}$  lb. avoirdupois.

*Beef* (common sort), 55 cent.,  $5\frac{1}{2}$ d per lb. of 18 oz.

*Veal and Mutton*, 65 cent. or  $6\frac{1}{2}$ d per lb. of 18 oz.

*Pork* about the same price.

Rent is high at St Quentin. A small room and closet costs 11 fr. or  $9\frac{1}{2}$  per month without furniture. In the country 3 or 4 fr. per month.

Coal is about 2 fr. 20 cent. the hectolitre.

*Roubaix*, near Lille, is the most thriving manufacturing district of France.

The articles chiefly manufactured here are thibets, waistcoat pieces, and thick cotton goods.

There are about 12,000 looms in this district, of which half are jacquard looms. These latter are principally in factories; the manufacturers finding it necessary to preserve the privacy of their patterns.

The demand having increased so rapidly, wages

have also risen. A weaver will, on the cotton goods, earn, on an average, 30 sous (15d.) per day ; on the 2d class work, from 30 to 40 sous (15d. to 20d.); and on the jacquard loom from 2 fr. to 5 fr. per day, the average being about 3 fr. : these are gross wages. Net earnings will be weekly about 12 or 13 fr. for the jacquard weaver, and from 6 to 10 fr. for the plain weavers. Women and children obtain plenty of employment at the mills. Wages have risen by above one-third in the last few years.

Wages in most of the other departments of labour (not manufacturing) are for men, 2 to 3 fr. per day, and for women, 1 fr. 25 cent.

Thibets of woollen weft and warp, 11⁰⁰ 3 shots over, chains No. 22^s, weft No. 38^s. Wages 17 sols (8½d.) per ell of 44 inches, amounting to about 20 or 22 fr. on an average per week, out of which the weaver pays for winding, weft, and every thing but winding the chains. The earnings of the weaver, therefore, on these goods could not be less than 2 fr. 50 cent., or 2/ per day, for 14 hours' work ; and weavers have admitted as much to me.

I inspected a woollen spinning factory belonging to Mons. Delatre. The spinners were earning from 20 to 24 fr. per week, net, as a matter of course ; and I was assured that the previous week one man had received for 7 days' work, no less than 60 fr., out of which he had, however, to pay 19 fr. to his piecer ; and it is by no means uncommon for them to earn 30 fr. net. The girls earned about 7fr. 50 cent. per week, and the children 3 fr. per week.

I was assured that they worked 15 hours in this mill. If so, I can only say I never saw healthier looking people in any factory except that of Mr Edmund Ashworth's of Egerton. The rooms were all high, clean, and well ventilated ; and the machinery, though not of the newest description, extremely good.

There are several weaving villages in the north of France, but none of which exhibit any features in the rate of wages worthy of particular note.

At Tourcoing, for instance, the weavers gain about 9 or 10 fr. gross per week ; these wages have been augmented by about a tenth during the last ten years.

The other working classes (adult males) gain from 1 fr. 75 cent. to 2 fr. 25 cent. per day.

The weavers are the most moral class in this town, and they attend to the education of their children, and seem contented with their condition. The price of food was last year :

Bread,	32 cent. ( $3\frac{1}{2}$ d.)	per kilogramme ( $2\frac{1}{2}$ lb.)
Meat, 1 fr. 10	do.	do.
Coals, 2 ... 25	do. ( $1/10$ )	per hectolitre of 22 galls.
Rent, average for weavers,	100 fr. (L.4).	

At Armentières also, in the neighbourhood of Lille,

Those weaving Calicoes, gain from 8 to 9 fr. per week.

...	Tickings,	...	9 to 10	...
...	Stuffs,	...	9 to 10	...
...	Tulle,	...	13	...

The manufacturer furnishes the winding, otherwise the above are the gross wages.

Food is the same price as at Tourcoing, and rent about 20 per cent. cheaper.

At the spinning-factories in Lille, the aggregate wages of men, women, and children, vary from 7 to 9 fr. per week.

At Calais, where the Nottingham bobbinet trade has been for some years established, the wages of the plain weavers will average about 10 fr. per week clear; those of the fancy network, from 25 to 35 fr. per week; of those who work at the tatting frames (the highest skill only being competent), earn from 45 to 70 fr. per week.

The work is done wholly at the factories of the manufacturer.

There has been a gradual fall from the first in the wages of the plain work (which were more than double at first), owing to the ease with which apprentices can learn it. Since, however, the tatting frames have been introduced, there has been likewise a fall in the wages of the fancy weavers. The same work two years and a half ago paid 12 sols per rack, is now paid only seven sols ( $3\frac{1}{2}$ d). A rack is 240 holes in the pattern, and there are 3 racks on the average in an ell.

The following are extracts from the Poor-Law Returns in 1834. As the rates are unchanged, I have omitted them in the foregoing statements.

At *Havre*, the average amount of the wages

of a male labourer is in the country, 2 frs. =  $1/6$ , in summer; and 1 fr. 50 c. =  $1/2$ , in winter, without food; in towns, it is 2 fr. 50 c. = to 2/ a-day, all the year.

A labourer's wife and four children, aged 14, 11, 8, and 5 years respectively (the eldest a boy), earn in a year, 1000 fr. (L.40), provided the two eldest children are employed.

The rent of labourers' habitations, from 50 fr. to 100 fr. = L.2 to L.4 a-year.

In the south-western provinces,

The wages of an able-bodied male labourer, by the year,  
amount to . . . . . 425 fr. = L.17 0

A house and garden is found him, valued  
at 60 fr. per annum, . . . . . 60 2 8

In addition to the above sum, he receives  
four hogsheads of piquette, (a beverage made by pouring water over the residue of the grapes and lees of new wine), valued at . . . . . 25 fr.

Wood, for fuel, valued at . . . . . 30  
————— 55 2 4

Total for the Year, 540 fr. = L.21 12

The wages of a day-labourer are 1 fr. 50 c. ( $1/4\frac{1}{2}$ .)

A labourer's wife and four children can earn, by labour, about 300 fr. (L.12) per annum, viz.

The wife, . . . . .	120 fr. =	L.4 16
Eldest boy, . . . . .	80	3 4
Child, 11 years old, . . . . .	50	2 0
Child, 8 do. . . . .	30	1 4
Child, 5 do. . . . .	20	0 16

Total, 300 fr. = L.12 0



Dr Bowring, in 1834, collected the following returns, which I have revised:

*In Paris—*

		Fr.	Ct.	Fr.	Ct.
Gunsmiths	. earn per day	. 3	50	to 4	0
Jewellers	. .....	. 3	50	to 4	50
Toymen	. .....	. 3	0		
Capmakers	. .....	. 2	50		

Butchers—they are boarded, and may earn from 1000 to 1200 francs per annum.

Bakers	. earn per day	. 4	0	to 4	50
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Brewers—they are boarded, and may earn 500 francs per annum.

Hatters	. earn per day	. 3	0		
Carpenters	. .....	. 3	0	to 3	50
Cartwrights	. .....	. 3	0		
Shoemakers	. .....	. 3	0		
Carvers	. .....	. 4	0		
Nailers	. .....	. 3	0	to 4	0
Ropemakers	. .....	. 3	0		
Cutlers	. .....	. 3	0		
Gilders	. .....	. 3	50	to 5	0
Cabinetmakers	. .....	. 3	50	to 5	0
Tinmen	. .....	. 3	0		
Engravers	. .....	. 5	0		
Watchmakers	. .....	. 3	50	to 5	0
Printers	. .....	. 4	0	to 7	0
	. .....	. 2	50	to 3	50
Masons	. .....	. 3	0		
	. .....	. 2	0		
Marblecutters	. .....	. 4	0		
Joiners	. .....	. 3	0	to 3	50
Goldsmiths	. .....	. 4	0		
Papermakers	. .....	. 3	50	to 4	50

		Fr.	Ct.	Fr.	Ct.
Perfumers .	earn per day .	3	0		
Laccemen .	..... .	4	0		
Pastrycooks—they are boarded, and earn from 600 to 900 francs per annum.					
Paviers .	earn per day .	3	0		
Plumbers .	..... .	3	0	to 3	50
Plasterers .	..... .	2	50	to 3	0
Porcelain-makers	..... .	3	0		
Soap-boilers	..... .	2	50		
Saddlers and	}	3	50		
Coachmakers					
Locksmiths .	..... .	3	0	to 3	50
	..... .	4	0		
Stonecutters	..... .	4	0		
Tailors .	..... .	4	0		
	..... .	5	0	to 8	0
Turners in Wood	..... .	3	0		
Upholsterers	..... .	3	0	to 3	50
Dyers .	..... .	3	0	to 5	0
Tanners .	..... .	3	50	to 4	0
	..... .	6	0	to 15	0
Terrace-makers	..... .	2	0		
Coopers .	..... .	3	0		

Do. They are also boarded, and  
get as wages 500 francs.

Turners in Metal	earn per day	4	0
Blacksmiths .	..... .	3	0

With regard to the food of these workmen, the terrace-makers and labourers live very economically, not expending more than from 16 to 17 sous per day: in the morning they repair to the low eating houses, called Gargottes, where for 7

sous they get soup, and a plate of meat with vegetables; their custom is to breakfast on the soup and vegetables, and carry the meat away with them for their dinner.

Thus, these 7 sous, two pounds of bread 8 sous, and perhaps for wine 2 sous, make 17 sous.

The masons, paviors, locksmiths, &c., do not exceed 20 or 21 sous; their only addition to the above being 4 or 5 sous for supper.

Carvers, gilders, saddlers, printers, &c., spend about 30 sous per day; viz. soup and meat for breakfast  $7\frac{1}{2}$  sous, dinner  $7\frac{1}{2}$  sous, wine at do. 6 sous, 2 lb. of bread 9 sous. The higher paid artisans spend at least 35 to 40 sous.

In the iron-works at Vandelesse (Nievre), the price of labour is 1 fr. 70 c. per day; at Nevers, for manufacture of iron-cables, 2 fr.; at Fourchambault, 1 fr. 60 c. is the average rate; the workmen in the potteries at Nevers gain 1 fr. 75 c. per day; at Nogent, in the manufacture of linen goods, the wages are, to men 2 fr., women 1 fr. 25 c., and children 60 c. to 90 c. per day; at Mouy, in the woollen manufactures, men are paid from 1 fr. to 1 fr. 50 c., and boys of fifteen 1 fr. In the Department de l'Aube, the weavers of fine cloth get 1 fr. 75 c.; stocking-makers, 1 fr.; cotton-spinners, 1 fr. 50 c. per day; reelers and winders, 1 fr.; tanners, 2 fr. to 2 fr. 10 c. At St Etienne, the wages paid to the miners are, diggers, 3 fr. 50 c.; drawers, 3 fr. per day. At Rieve de Gier, 4 fr. 25 c., and 3 fr. 50 c.; nailers receive either 7 to 10 centimes

per lb., or from 1 fr. to 1 fr. 50 c. per 1000. The tenders on silk-worms are paid from 50 c. to 1 fr. per day. Women employed in reeling silk receive 1 fr. per lb. At the forge of Janon (Vienne), a master founder is paid 8 fr., a founder 4 fr. to 5 fr., a labourer 2 fr., and a boy from 1 fr. to 1 fr. 25 c. per day. At Rive de Gier, the labouring makers of coke receive from 2 fr. to 2 fr. 50 c. per day.

The "Ponts et Chaussées" pay their labourers 36 fr. per calendar month.

The food varies in different districts. Throughout the district called *Landes* (Heath), occupying about one-third of this department, the food consists in rye bread, soup made of millet, cakes made of Indian corn, now and then some salt provision and vegetables, rarely, if ever, butcher meat; their drink, water, which, for the most part, is stagnant.

In the other parts of Southern France, the peasantry live better. They eat wheaten bread, soup made with vegetables, and a little grease or lard twice a-day, potatoes and other vegetables, but seldom butcher-meat; their drink is wine or piquette; a family, composed as above, could lay something by from their gains at the end of the year, as the wants of the lower classes are much fewer than in England; in fact, the luxuries of tea, &c. are quite unknown.

I can corroborate most of these statements from my own observations.

## CHAPTER IV.

WAGES IN SWITZERLAND, AND PHYSICAL CONDITION  
OF THE ARTISAN-PEASANTRY.

Peculiarity of Swiss wages—No index to condition—Wanderschaft—Linen weavers of Langenthal, &c.—Argovian wages in cotton-mills, &c.—Zürich, wages and prices of food—Artisan agriculturists of St Gall and Appenzel—Comparative estimate of the average comforts and food of English and Swiss peasants—Prices of food—Reason of low pecuniary wages of the weavers—Intermixture of pastoral and manufacturing industry.

I am loth to speak of the wages of Switzerland. The pecuniary amount of wages is at all times a fallacious index to the real condition of the labourers. In Switzerland it is peculiarly so, owing to the very great subdivision of land, and the intermixture of agricultural and artisan occupations, a vast number of the working classes producing a portion of their own subsistence.

This and other peculiarities render the money-wages of the Swiss artisans so inadequate a criterion of their eminently happy and prosperous condition, that I cannot too strongly caution my readers

against making the former a measure of the latter. There is also another peculiarity in the supply of labour in certain branches of trade, common not only to Switzerland but to a large portion of Germany and Austria, which it is necessary to describe. I allude to the *Wander-schaft* system. By immemorial usage, no apprentice can obtain his freedom and become a master until he has spent so many years under his itinerant probation, and in following his avocation beyond his native country. He is furnished on setting out with a book, in which his various masters insert certificates of his service and conduct. This is called a "*Wanderbuch*." [The journeyman is generally assisted not only by the trade to which he belongs, in towns where there is no employment for him, but by the donations of travellers. This part of the system I think objectionable, for it decidedly removes that abhorrence of dependence, which it is so essential to inculcate, as an element of physical, as well as of moral welfare. I have been frequently asked by well-dressed men, with a knapsack on their backs, for money on the road. However, from one of those who asked charity of me I derived a great deal of valuable information; he had been through Switzerland, part of Bavaria, and Wurtemberg, and was then on his way home to Baden. He spoke French admirably, and gave me an excellent account of the most salient features in the condition of the workmen in the

different countries he had been in ; and I need hardly say how greatly the experience they gain in their travels must tend to improve them in their trade, and, what is far more important, to add materially to their knowledge and mental capacity. I object, however, decidedly to the practice of begging, which cannot but remove the reluctance to so degrading a resource in after life when distress may arise, without the palliation which custom affords to the journeyman. In every other respect it appears advantageous ; and in point of intelligence, I can speak from personal knowledge to the fact, that these journeymen on the Continent very far surpass the same class in this country in general education. *J. C. Symonds.*

Mr Kennedy of Felkirch favoured me with some written remarks on this interesting subject, which, from his long residence in Austria, no one more fully understands :—

“ You are aware that here, as over almost every part of Germany, the trades of tailors, shoemakers, furriers, &c. &c. are carried on by masters who employ journeymen on the *Wander-schaft* as it is called, that is to say, workmen who go from town to town, stay a winter at one place, a summer at another, and receive generally, besides board and lodging, a certain sum weekly. This is usually about a dollar (3/) to 3 florins (5/) ; tailors 20 per cent. less. When they go from one town to another,

it is a recognised privilege of theirs from time immemorial to ask assistance from passers-by as they travel along, and at the towns they pass through; and at every town there is a "*herberge*," as they call it, where the master of the inn has agreed with the guild of that trade to lodge them at a very low rate; so that when they arrive, they immediately ask for the tailors' or shoemakers', &c. *herberge*, and by that means can travel very cheaply; a very bad system, which was originally intended to give them an opportunity of improving themselves in the knowledge of their art, but it is peculiarly favourable to vagabondising. At the moment I am writing this, a silk-weaver has applied to me for assistance. From his passport I see he has been in Italy, and then in Hungary, and is returning to the Grand Duchy of Nassau, whence he came. Of course, in the large towns, they have the system of piece-work in a much greater degree."

In the linen districts of Berne, the weekly average wages (net) of the weavers were as follows:

1. For the best damasks (skilled			
workmen),	. .	10 fr.	= 8/4
2. For second class do.	. .	8 ... 50 cent.	7/1
3. Plain webs,	. .	7 ...	5/10

The condition of the weavers is exceedingly good; they not only possess all the comforts of their class in life, but, excepting merely the cases where a large and young family has to be provided for, con-



siderable savings are amassed by the Bernese linen weavers.

The price of food and lodging is so moderate in the neighbourhood of Langenthal, that an adult is able to support himself with ease on fivepence per day.

The rate of wages was higher per piece, but the increased aptitude of the workmen, and the corresponding progress in the invention of more costly designs, has fully compensated to him the diminished standard of his wages ; their amount, therefore, per week has been stationary for at least ten years. The morals of the Langenthal artisans are equal to those of any other class ;—they are sober, frugal, and peaceable. Their children are, of course, educated according to the universal custom of the country.

In comparing them with other classes, I should say the weavers were here, as well as elsewhere in Switzerland, above, rather than below, the standard of other artisans in mind and morals.

In the canton of Argovia, the wages in the spinning mills, and indeed in all the factories of the Continent, exhibit one of the main distinctions between our own industrial position and that of our foreign competitors, and one to which I shall have occasion again to refer.

The wages in an average cotton-mill in Argovia, were as follows :

Spinners'	average, 1 fr. 50 c. per day, =	1/ 3	Eng.
Carders'	... 1	... 0/10	...
Girls, piecers, &c.	... 4 50 per week,	3/ 9	...
Power-loom weavers,...	75 per day,	0/ 7½	...

The hours of factory-labour are from 6 to 11, and from 12 to half-past 7.

Journeymen carpenters, masons, &c., do not earn on an average above 1/2 per day.

It must be here remarked, that hand-loom weavers, such as we are accustomed to in the north of England and Scotland, who work at their loom from morning to night, and from January to January, —there exist scarcely any in Switzerland. The hand-loom weaver of Switzerland is almost universally either an agricultural servant, or himself the proprietor of land. Even the very journeymen work at the loom only when their labour could be less advantageously employed out of doors. The almost infinitesimal division of land, and the immense number of small proprietors, added to the frugality of the Swiss peasant, and his general desire to possess land, renders weaving, for the most part, a *secondary occupation*, resorted to at least by two-thirds of the whole number of the families in the country districts. Thus, in speaking of weavers, I speak, in fact, of the great body of artisans.

The wages of these weavers will not average more than a franc a-day, which makes 5/ a-week ; but I shall specify the exact rates paid afterwards

in describing the articles chiefly produced by the Swiss looms.

The rate of wages has greatly declined in cotton-weaving ; the Messrs de Herzog of Aaron told me they had paid 9 sous per ell for what they now pay 2 sous. This change has taken place within twenty-five years.

The silk and ribbon weavers earn from 7 to 10 batzen per diem (*i. e.* from  $10\frac{1}{2}$ d. to 1/3). These are gross wages, and leave about 6/ on an average clear for good workmen ; but there are a large proportion who do not earn above 5/.

What I have already stated of hand-loom weavers applies equally to other workmen, whose wages form but a very slight index to their condition. The price of provisions, which I shall note hereafter, will shew how little costly are the commodities which are usually the staple articles of a labouring man's sustenance ; and I ascertained that a journeyman artisan usually pays in Argovia from 18 to 20 batzen per week for his board and lodging,—a sum not exceeding, on the average, 3/ Sterling. But wages by no means form the whole income of a labourer : he is, as I have stated, almost universally the proprietor, or the son of a proprietor of land, and few householders are there in the whole canton who do not keep a pig, and generally a few sheep. Their cottages are strewn over the hills and dales, and exhibit in the interior every degree of comfort and ease. Their meals are chiefly vegetable, but there is always plenty.

In the canton of Zürich, I visited in the neighbourhood of the town one of the factories of handloom silk weaving. I found the same wages paid by the manufacturer to the weavers in his factory, and to those out of it ; although the former enjoy the advantage of having loom, light, firing, and winding, found for them. It is evidently to the interest of the manufacturer to do this, in order to preserve the privacy of his patterns ; for the factory-looms are always jacquards, in which designs and figured silks are woven. The weavers, moreover, being obliged to devote themselves exclusively or nearly so to this occupation, require additional remuneration. Wages generally have been nearly stationary for ten years. The gross wages of the multitude of weavers, whose cottages I visited in this canton, did not average more than 5 francs 20 cent. per loom, gross receipt ; this was, however, taking young, old, skilled, and unskilled, all together.

Women generally weave the silk articles and men the cottons ; the former requiring a dry room up stairs, and the latter being best manufactured in a cellar. Hours of labour when working, average 13 hours actual work per day.

My respected friend Mr Henry Escher of Zürich, to whom I am indebted for much information, and facilities in obtaining it, gave me the following rates of payment :—

*In Zurich.*

Common out-door day-labourers, summer, 10 bats. = 1 fr.

45 c.

Do. do. winter, 8 bats. = 1 fr. 15 c.

with a quart of wine and half-lb. of bread *per day*.

*In Country.*

Day-labourers, summer,  $6\frac{1}{2}$  bats. = 90 c.

Do. winter, 5 bats. = 75 c.

same allowance of bread and wine.

In the environs of the town, road-makers gain 12 bats 1 fr.

80 c.

In the country, do. 8 to 10 bats.

The sum of L.400,000 having been expended on this canton alone on roads within the last four years, the number of road-makers is considerable.

The cantons of St Gall and Appenzel, which are perhaps among the first of the German manufacturing cantons, present the most enchanting picture of the happiness of the artisans, combined with a low amount of money-wages, which, in the cotton mills of Zürich, St Gall, and Appenzel, will scarcely average 6 fr. 80 cent. per head per week. There are, however, generally a younger class of persons who work in the Swiss factories than elsewhere. There are no *children* so young, but there are decidedly far fewer *adults*; which accounts for the difference of wages between Switzerland and France, &c.

The canton of Appenzel presents the maximum of prosperity and contentment among the peasantry of Switzerland. I had a favourable opportunity of examining them, whilst visiting my vene-

rable friend M. Zellweguer, to whose eminent philanthropy the canton chiefly owes its superior welfare, and to whom Switzerland is indebted for many of those well appreciated principles of political economy and social government, which have created the prosperity which signalises her among the nations of Europe. I visited many of the cottages of the artisans of Appenzel with Mr Zellweguer, and was invariably struck by the high degree of ease and peacefulness they exhibited.

The cottages of both these cantons are scattered separately over the vales and hills, each standing in the midst of its little estate, with the goats or sheep, with their melodious bells to their necks, grazing on the land, which is generally pasture. The interior of the cottages which are built of wood, are cleanly beyond description, and are well furnished with every article of cottage comfort.

The artisans in the south of Switzerland, who are employed in a great degree in watch-making, were not the objects of my inquiry, nor could it be possible to affix any general average to the wages of an occupation, which fluctuates so immensely in its remuneration with the skill of the workman. To the general prosperity of the Swiss mechanists, I can, however, speak with confidence.

From what I have already stated as to the wages of the artisans under the head of each canton, it will be apparent, that, owing to the univer-

sal intermixture of agricultural industry, with that of the loom, &c. that wages afford no criterion of the physical condition of the industrial classes ; for the fact is, that they immediately produce a great portion of the food they consume, and the clothes they wear. This renders the money-earnings of a family utterly useless, as a standard of the amount of clothing and sustenance they possess. From this very circumstance, however, it happens that the price paid for weaving is extremely low ; and, as far as I could ascertain, on an exact par with the scale of payment in Scotland. This I attribute in a great measure to the fact, that in Switzerland, weaving is considered in its proper light, namely, as an occupation too easy and too light, to be remunerated otherwise than by proportionately low payment. And low indeed would be the income of the Swiss artisan peasant, were his payment his sole means of sustenance. But there are other means, whereby the careful observer may readily supply the absence of pecuniary criteria. The evidences of a well furnished and roomy house, ample meals, excellent clothing, and superior education, are sufficient to testify the exceeding difference between the means and money earnings of the Swiss artisan peasant ; but, still surer indices of a high physical prosperity, are legibly written on the rosy cheeks of each cottage child, and in the happy countenances and robust frames of the adult artisan.



I confidently believe, that it would require 30/ per week in England, in the neighbourhood of any country town, to put a man, his wife, and three children (two of whom shall be above 15 years of age), in the same condition, and in all physical respects, on a footing with the average of Swiss artisan peasants having the same family. This statement requires a little explanation. I assume that an English family thus circumstanced, where provisions were of the average price in England, might be supposed to expend their 30/ somewhat thus :—

Rent of cottage of 4 rooms, per week,	. 1/6
Bread, 26 lb. weight,	. 5/
Bacon, 8 lb. at 9d.	. 6/
Coal, 2 cwt., or other fuel, year through,	. 2/6
Potatoes, or other vegetables, 1 bushel,	. 2/
Beer, 14 quarts, 8d. per gallon,	. 2/4
Tea or coffee, 2 oz. at 5/,	. 0/8
Sugar, 1½ lb. at 8d. per lb.	. 1/
Butter, 1½ lb. at 1/2 per lb.	. 1/9
Cheese, 1 lb.	. 0/9
Milk, 3 quarts,	. 0/6
Soap, 1 lb.	. 0/7
Candles, 1 lb.	. 0/8
Tobacco, 1 oz.	. 0/3
Man's clothing (one suit, 2 pair shoes and stockings, per year),	} 1/6
Woman's do. (two suits per year),	. 1/
Three children (do. each per year),	. 1/6
Club,	. 0/6
Sundries,	. 0/6
	<hr/> 30/ <hr/>



Of course, the value of these articles will vary in different parts of England; but I believe the amount of comforts and necessities to be purchased for 30/ a-week, will, on the average, be found to tally with the above statement.

I fearlessly assert, that that amount of comforts and necessities, *mutatis mutandis*, is enjoyed by the bulk of Swiss artisan families in the German cantons of Switzerland. This is an assertion which cannot be set aside by mere *ipse dixit*. They who may desire to do so can alone ascertain its validity by personally visiting the homes of the Swiss peasants at different hours and in various cantons. I am not afraid to submit this statement to any one who has thus qualified himself to pronounce an opinion on the subject.

I am, moreover, impressed with a confident belief that the working classes of northern Switzerland, enjoy a greater amount of physical comfort, and of mental cultivation, than the working classes of any other European community.

Unmarried men and itinerant workmen are, for the most part, boarded in the houses of small proprietors.

The sums raised for the relief of the impotent poor are very trifling, and never, even where no institutions exist for their support, bear any comparison with poor-rates in England.

The price of food necessarily varies greatly in different cantons, as the transit-tolls, which consti-

tute a great part of Swiss taxation, make provisions comparatively dear wherever they are not the produce of the canton in which they are consumed. The following will be found, however, a tolerably correct average for the majority of the German cantons.

Bread fluctuates from 1d. to  $1\frac{3}{4}$ d. per lb. of 17 ounces: the average is  $1\frac{1}{2}$ d. for common bread, *i. e.* one batz of Zürich. Meat varies from  $2\frac{1}{2}$ d. to  $4\frac{1}{2}$ d. per Swiss lb.; average price, 3d. Potatoes, 20d. per sack of 33 gallons; but the fluctuations are very great. Milk, from 5 to 7 farthings per pot of 3 pints. Wine, for workmen,  $\frac{3}{4}$  per quart. Wood also varies much, from 20/ to 30/ per cord of 90 feet. .

The meals of the Swiss consist more of porridge than is general in England; and much more milk and cheese is consumed. In other respects (wine and cider being substituted for beer), the catalogue of articles I have given above will scarcely differ in the two countries. The amount of meat I have purposely stated rather low.

Wages were higher, as in England, during the war; for persons knowing how to weave were then smaller than they now are in proportion to the demand for woven goods. The peace returned a number of soldiers to the country, and weaving very soon resumed its rank among the lowest of arts.

The high education of the Swiss soon taught them to perceive that a handicraft, at least as far

as plain weaving is concerned, requiring the skill of children and the strength of women, must necessarily be remunerated by the wages of children's and women's labour. Weaving, therefore, except in the fancy-work, has long ceased to be a separate employment ; and exists but as the occupation of children, women, and elderly men, or as occupying the intervals of higher branches of adult industry.

A very important effect results to the economy of wealth from this system. It appears that, by this junction of manufacturing and agricultural industry by the same persons, an augmentation must accrue to the production, and consequently to the wealth, of the country. An agriculturist in England seldom works after four o'clock in the afternoon : the Swiss agriculturist, on the contrary, occupies himself at the loom not only in the evening, but during bad weather, and in winter, when the English farm-labourer is idle. The loom, which is here an exclusive and starving occupation, is there a pastime of supplementary production. It is, I think, manifest that the Swiss system increases the wealth of the nation ; but it must be remarked, on the other hand, that were the sort of out-door labour performed by the Swiss artisans the same as that of English labourers on arable farms, instead of being chiefly horticultural and pastoral as in Switzerland, it is questionable whether the hands inured to the plough, the flail, and the pitchfork, would be fitted for the weaving of muslins and gingham for evening amusement.

## CHAPTER V.

WAGES AND PHYSICAL CONDITION OF AUSTRIAN  
AND PRUSSIAN ARTISANS.

Factory wages—Infant labour—Migration of workmen—  
Herding cattle, &c.—Prices of food—Elberfeld wages—  
Wages in Prussia and Wurtemberg, &c.

In Austria but few differences distinguish the condition of the artisans from those in Germany. Since the period of a former visit to Austria, some years ago, I perceived a marked progress in their prosperity; and although small comparison can be drawn between the artisans of Switzerland and Austria, still those of the latter country are far from ranking low in the scale of industrial welfare among the nations of the Continent.

The wages of the factory labourers average as follows:—Spinners, 1 fl. ( $\frac{1}{8}$ ) per day; women, from 30 to 40 kr. (10d.) to ( $1\frac{1}{3}$ ) per day; children, 13 to 16 kr. ( $4\frac{1}{3}$ d.) to ( $5\frac{1}{3}$ d.) per day.

The hours of factory-labour in Austria are cruelly long, being frequently in the factories of the interior 15 hours per day, exclusive of meal-time:

and not unfrequently 17 hours. No law protects the children. At Messrs Escher and Kennedy's, a humaner system is adopted, and the time of work seldom exceeds from 13 to 14 hours.

It appears that the fate of these unhappy children has excited some animadversion in Austria, and that the question of shortening the time of work is occupying the attention of the Government; for an association of the cotton-spinners has been formed, to which, the owners of 470,000 out of the whole 600,000 spindles in the empire, already belong. The efforts of this association are employed in using every possible means to keep the law as it is, and to maintain this flagrant inhumanity. This subject has been frequently recalled to my notice in other countries. Any remark which I might chance to make on the bad effects of not limiting the hours of infant labour in other factories, has been generally met by the remark, "We do not work our children nearly so much as in Austria." Thus the cruelty of the Austrian practice becomes a justification (though a bad one) for lesser excess over the rest of the Continent.

The Wanderschaft system of course prevails there; and most of the trades are supplied by the itinerant journeymen. A carpenter there can earn from 40 kr. to 54 and even a florin ( $1/8$ ) per day. Millwrights ditto. The social system is very different from what it is in England or in Scotland, and it would take some time to describe it fully.

In the first place, almost every father of a family has a house and several patches of land. The house and land may have cost 1200 to 1500 florins, or even less. 1200 fl. equals L.100 Sterling, and this the proprietor has probably bought, liable to a mortgage of 600, 800, or even 900 fl. ; for which he pays 5 per cent. The Voralberg, containing about 90,000 inhabitants, sends out masons and house-builders to nearly the whole of Switzerland, and the neighbouring provinces of France. They leave early in spring, and live very sparingly during the summer; cooking for themselves a kind of pudding or soup of flour and Indian corn, which, with bread, and now and then a glass of wine, suffice for their nourishment. They return home in autumn, where they have little to do during winter; excepting to fell wood, &c. in the forests, and other chance work. The children leave the country at the same time in thousands, to herd cattle in Suabia and Bavaria: they get perhaps L.1, besides board and lodgings, for their services, a suit of home-spun linen clothes, and two pair of shoes, and perhaps a bag of flour, which they manage to cook for themselves on the way, and return with nearly the whole of their earnings. The women who remain, and the elder men, cultivate the land, and the girls and many of the young men weave, and are employed in the manufactures.

I have before stated, that food is cheap in Austria. These are the prices of bread and meat, and wheat, as published by authority in the “Feldkircher Wochen-

blatt," of October 9th, the day I was at that town : *Best wheat*, 6 fl. the half "metz," of which, four make a sack ; (the price of the English quarter would be therefore 40/), *common wheat*,  $2\frac{1}{2}$  fl. per half metz, (or  $33\frac{3}{4}$  per quarter).

Best white bread, . . . .	$1\frac{2}{3}$ d.	per English lb.
Common do. . . . .	$1\frac{1}{6}$ d.	Do.
Beef, . . . . .	3d.	Do.
Veal, . . . . .	3d.	Do.
Mutton, . . . . .	$2\frac{3}{4}$ d.	Do.
Pork, . . . . .	4d.	Do.

In Austria, the working classes generally are a contented, but certainly an ill-informed people. They are, moreover, weaker in intellect than perhaps any of the surrounding countries, and, as the progress of mind is under the immediate tutelage of the Catholic priesthood, there is no reason to expect any material advance in Austrian intelligence.

The means of life seem pretty equally distributed, according to the manufacturing demand for labour, or the fertility of the soil, compared with the number of the population. In the Tyrol, great poverty prevails, and this forces the natives to migrate and wander over the rest of the Continent, deriving a scanty subsistence from the sale of wares, &c.

In the dye-works at Elberfeld in Prussia, the men receive about 4 dollars = 12/ per week, for the hardest work, with long hours, and 3 dollars = 9/1 for the second class work.

The weavers, who constitute the majority of the



working classes of this very flourishing place, are the best paid, and earn from 8/ to 16/ per week, according to their skill and the class of work, chiefly silks and velvets, on which they are employed. I saw a silk damask with silk weft and warp in a jacquard loom, on which the weaver earned 1 dollar 3 silver groschen per day =  $3/4$ , but this was the very best class of work. The deductions were 1 dollar per week. Commoner damasks with cotton warp, were paid  $7\frac{1}{2}$  groschen per ell, = about /9, and a weaver owned to weaving 18 ells per week with ease. There are also some hair-cloth weavers, who earn about 5 dollars per week. I need hardly add, that all these workmen live in the greatest comfort. The wages are exceedingly high at Elberfeld, owing to the rapid increase of its manufactures; but throughout the south and west of Prussia the wages are good, and the working classes are in a state of prosperity.

In *Northern Prussia*, wages are not quite so high. Mechanics, as carpenters and blacksmiths, earn in the towns from  $1/6$  to  $1/10$  per day. Shoemakers, tailors, &c. about  $1/2$ : common labourers in towns  $1/$  per day in summer, and /9 in winter, and in the country from /5 to /8. Agricultural labourers, besides house-rent, fuel, and sometimes half an acre of land, earn from /5 to /7 per day.

The food of the working classes in Prussia does not materially differ from that of the Austrians.

In *Wurtemberg*, there are a great number of very



poor people ; chiefly owing, it is said, to the utter decay of the flax-spinning, which, as a domestic industry, was the great trade of the Wurtemberg peasants. Weaving, and indeed all wages, have experienced a decline.

The best artisans are employed in the large towns, are fed and lodged by the masters, and receive from one to two and a half fl. weekly. Those in the smaller towns and villages are lodged, fed, and receive from 20 kr. to 1 fl. ; when workmen are taken on extraordinary occasions by the day, they receive from 20 to 30 kr., and are fed. Farmers hire their servants by the year, feed and lodge them, and give them in the villages from 20 to 40 fl., in the towns from 50 to 60 fl. yearly wages.

In the morning, they eat soup, potatoes, or bread ; dinner, vegetables or pudding ; between dinner and supper, bread ; supper, potatoes and milk, or soup ; once or twice a-week, meat. In the cold weather, the man would have a glass of inferior brandy before going to work in the morning. On Sundays, the man would have a little beer or wine, and the woman coffee, of which they are very fond.

A journeyman workman in the country, with the shoemakers and tailors, 20, 24 to 30 kr. ;* with the bakers, 48 kr. to 1 fl. ; with the smiths, 48 kr. to 1 fl. 12 kr. ; with calenderers and tanners, 48 kr. to 2 fl. weekly, with board : a journeyman carpenter or bricklayer, from 30 to 36 kr. daily, with bread and

* 60 kreutzers make 1 florin = 1/8.

something to drink. In the capital, with board, from 1 fl. 12 kr. to 2 fl. 42 kr. weekly ; without board 36 kr. to 1 fl. daily.

It is astonishing how far these wages go. Day-labourers even can save great part of their earnings. They are well fed, when boarded by their employer ; receive in towns, in the morning, coffee, 2 kr. worth of white bread, or, instead of the coffee, a quart of cider and a pound of bread ; at dinner, every day, vegetables and meat ; in the evening, soup, potatoes and two ounces of butter ; in some trades they have, besides, a quart of cider and bread.

The country labourers also, in some places, live well. The return to the Poor-Law Commissioners' Inquiry, states, that in the district called *Auf der Bahr*, for instance, every day-labourer regularly kills a hog every year, either alone or in conjunction with others, and has meat through the winter. In the Black Forest every woodcutter in like manner constantly eats meat, drinks wine, and in general denies himself nothing. Other day-labourers, who have fewer opportunities of obtaining constant work, or who have large families, must indeed live more frugally. A poor woodcutter at Delmen-singen, in the bailiwick of Wiblingen, for instance, puts in the morning a slice of bread in his pocket, and is happy if he can drink a small glass of brandy with it, and in the evening finds a dish of warm vegetables when he comes home ; during the whole week he does not taste meat, and often not even on

Sunday. A poor tailor at Saugau, whose business does not afford him the means, supports by day labour himself, his wife and eight children, who, on account of their youth or attendance at school, can earn little or nothing ; that is, ten persons, without incurring debts and without support from others, except perhaps a few articles of clothing which are given them as presents. The work on which he is employed is chiefly woodcutting and *stumpengraben*, by which he earns, one day with another, at the most, 24 kr., or 120 fl. per annum. These people take, in the morning, soup ; then the man goes into the forest, takes with him brandy to the value of  $1\frac{1}{2}$  kr., and black bread, for 2 kr. ; and in the evening sups with his family, who, during the day, have had potatoes, or *garlic* and herbs, or some other vegetable, or perhaps potatoes again. These people taste meat at the most sometimes on Sundays ; never wine or beer.

The prices of food are extremely low in Wurtemberg : coarse meat costs on an average 8 kr. per lb., =  $2\frac{2}{3}$ d., bread from 3 to 4 kr., =  $1\frac{2}{3}$ d. per lb.

## CHAPTER VI.

## A REVIEW OF WAGES.

Comparative value of money here and abroad—Combinations ;  
effect of their absence abroad—Working classes better off  
at home than abroad.

As the amount of commodities purchasable with the same sum of money on the Continent, is much greater than the amount purchasable with it in England, various calculations have been made of the proportionate difference ; but as this amount of commodities differs not only between countries but between towns and districts in the same countries, I regard as of very little use any statement of one general measure of a difference, which I have found to vary with the price of food, the fluctuations of markets, the inequality of seasons, and the political circumstances of the countries, from a difference of 5 per cent., to a difference of 100 per cent. It is necessary to specify the place in each country, and the time at which the comparison is to be made, in order to arrive at any thing like a correct ratio of the proportionate value of the same sum at those places.

As a general proportion (subject, however, to large variations), we may perhaps assume that in Switzerland 1/ will go as far for a working man as 1/3 here; in France, Belgium, Rhenish Prussia, as far as 1/4 here; in Austria and many parts of Prussia, as far as 1/5 here; and in Wurtemberg, parts of Austria, some of the Duchies, and Bohemia, as far as 1/8 or 1/10 here; always comparing towns with towns, and country with country; agricultural with agricultural districts, and manufacturing with manufacturing districts. Hereafter, of course, in using the term wages, I mean *real* wages, that is, *amount of commodities* purchasable with the money.

It will be seen that one of the most salient features of difference between home and continental wages, consists in the fact, that, whilst very great disparity exists between the rates of payment in the different departments of labour at home, an uniformity prevails abroad, varied alone by the variations of skill required, and by the local demand for and supply of labour. It will be further observed, that the branches of industry which are higher paid with us than abroad, such as spinners, tailors, &c., are precisely those which are in combination among us; and that those, such as hand-loom weavers, &c., who are worse paid here than abroad, are those who have no combinations, at least none effective in maintaining the rate of wages. To this fact, I shall recur hereafter; for to the absence of combinations abroad I entirely attribute the uniformity of foreign

wages. Taking a general view of the comparative pecuniary condition of the working-classes on the Continent and at home, I have no hesitation in saying, even after the difference in value of money is taken fully into account, that the working-classes of England in the aggregate, are at least by one-sixth better off than the working-classes of the Continent. Of course, this statement is subject to very considerable exceptions, which I shall endeavour to specify ; but as a general statement I make it with confidence.

The factory work-people are decidedly the best paid in England, in comparison with the same class abroad. The wages in the Lancashire factories average as I have stated 10/6 per week per head. Those in France, Switzerland, Austria and Belgium, vary from 6 fr. to 9 fr., averaging 7 fr. 50 cent. = 6/3 !—a sum which will, in the districts in question, be equivalent in exchangeable or real value to 8/4 ; so that cotton-factory work-people of Lancashire have 26 per cent., or a quarter, more wages than the same class abroad. The disparity is *less* in all other branches of industry ; and the difference, with scarcely an exception, will be found to *decrease* in each branch of industry, in the same proportion in which that branch is unfortified by combinations at home ;—the journeymen carpenters, tailors, shoemakers, differing in a lesser degree, the agricultural wages differing very little, and the hand-loom weavers being somewhat higher abroad.

The price of corn, and therefore of the chief articles of food, in France and Belgium, is, for instance, to the price in England, as 3 is to 4, or as nearly so during a course of years as possible. Taking this as a ground-work, I have sketched the following proportion between real wages, in the chief divisions of industry in the two countries :—

Classes of Labourers.	In France and Belgium, Average Weekly Wages.	In England, Average Weekly Wages.	Difference in favour of England, after adding one-third for greater cost of food
1st Class of Mechanics.	fr. cent. 15    = 12/6	20/	3/4
2d do.            do.	10 80 = 9/	14/	2/
Farm Labourers.	7 80 = 6/6	10/	1/4
Spinning Factory do. } men, women, and children.                }	7 50 = 6/3	10/6	2/2

In Switzerland, the paradise of the labouring classes, where the father of almost every family is a proprietor of land, the condition of the working-classes cannot be tested by wages, and their high physical, as well as moral eminence, places them far above the standard of comparison with any other people of Europe. In France, wages I consider are, generally speaking, as low if not lower than in most countries ; and the people live in a state of discomfort, which I have not seen surpassed, except in portions of the most impoverished parts of Austria and Wurtemberg.

The comfort of the cottages in England is not equalled abroad, Switzerland excepted. In Belgium there is more cleanliness than in France ; the pigs and poultry have not the same prescriptive right to inhabit the bed-rooms, which they possess by immemorial usage in most other countries. In Austria the physical comfort of the working-classes is a little superior to that of the French. I have compared these countries with England, in distinction from Scotland, where I found every thing, as regards the country especially, so closely resembling the scenes, practices and manners of the Continent, especially Germany, that I regard it in these respects on a par with Prussia.

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## CHAPTER VII.

### ON THE ELEMENTS WHICH GOVERN WEALTH AND WAGES.

What determines the labourer's share of commodities ?—  
What determines the amount of commodities to be shared ?  
—Freedom of interchange—France, Switzerland, exemplifications of the theory—Absurdities of protective system in France—Fallacies of some corn-law opponents, on the subject of wages—Boards of trade, &c.

Into the causes which govern wages, I had not intended to enter, till it was necessary to advert to those which affect national wealth, and which I hold to be identical ; but I am induced to state my view of them ere I proceed, in order to dismiss this entire branch of the subject at once.

The proximate law affecting wages, is the number of labourers compared with the demand for labour : on this point, I believe, no doubt exists. It seems indeed self-evident, that when the demand for labour is great in proportion to the number of labourers, there will arise competition among employers to get labourers, and they will succeed by the highness of the wages they will give ; thus wages rise : when the number of labourers is greater than the demand for their labour, there will be a competition among labourers to get

employment, and they will succeed only by the lowness of the wages they will take ; thus wages fall. Labour in short is, like any other commodity, regulated in price by the universal law of supply and demand. These, however, are merely the laws which determine the labourer's share : but there are another set of agencies, which determine the amount of wealth to be shared. Now, as commodities can alone constitute wealth, gold and silver included, which are representatives of commodities (or, more properly speaking, commodities themselves), I shall, instead of " wealth," or " capital," or " accumulated savings," speak of *commodities*, as the simplest and most comprehensive term for the possessions of a nation ; of which profits and wages are component parts, and out of which they can alone proceed. We have already seen what it is that determines the labourer's share ; but as that must of course be dependent on the anterior causes which determine the amount of commodities in the possession of the nation, we must examine what those causes are. They may, I believe, be classified into four :—first, the fertility of soil ; secondly, the industry and skill of the producers ; thirdly, the freedom of interchange : and fourthly, the fewness of non-producers. I apprehend that three of these are self-evident, and that facility of interchange is the only one which needs any comment. I maintain that it is the policy of nations to exchange with perfect freedom what each can easiest produce and best spare.

This appears to me almost self-evident, and stands on precisely the same principle as that which makes one man confine himself to making shoes, another to making hats, and a third to making coats. Now, why does this take place? It is based on the principle of *division of employments*; which teaches us, that as a man will acquire greater skill in a trade, by confining himself to that one trade, than by undertaking two or three, a larger quantity of commodities will be produced in the aggregate, by three men separately following the trades of hatters, tailors, and shoemakers, than if the whole three were each of them to make hats, coats, and shoes. Now, the principle and advantages of division of employments, hold good equally among nations, as among trades in the same nation. But I go still further, and I assert, that this principle is still more advantageous between nations than between trades; for particular countries have always some natural or indigenous facility, in the production of certain articles, over and above the skill in perfecting them, which practice imparts. Thus, if France, for instance, has a peculiar advantage in producing silks, and England in producing knives, it is manifestly to their mutual advantage to exchange British surplus knives, with French surplus silks; and for this plain reason, that if France refused to take England's knives, and devoted a part of her labour to make knives herself, it is quite clear that, as she labours under disadvantages for making them, she would produce, in a

given time, a less amount and a worse quality of knives, than she could have produced of silks; which silks, had she exchanged for English knives, would have produced, with the same labour, a larger amount, and a better quality, of cutlery for France. I will repeat this in another form, because, as the whole theory of free-trade is centred and contained in the advantage I am here endeavouring to describe, it is essential we should have a very clear notion of it. I will suppose then, that France with 12 hours' labour can produce 100 pieces of *silk*, and England with 12 hours' labour can produce 100 pieces of cutlery; we will suppose that each of these countries wants for their own use 50 pieces of silk and 50 pieces of cutlery. The question is, whether they will do best to exchange the 50 extra pieces of silk with the 50 extra pieces of cutlery, or, whether they will do better each of them to devote 6 hours of every day to the other commodity?

But though France can make 50 pieces of silk in 6 hours, it is evident that it by no means follows that France can make 50 pieces of cutlery in that time. On the contrary, the case we have taken, is that in which France possesses greater facilities for making silk than knives; therefore, if France makes 50 pieces of silk in 6 hours, she will necessarily make a lesser number of pieces of cutlery,—say 40

Thus it appears, that, in the case in which A makes nothing but silks, keeping 50 pieces for herself, and exchanging the other 50 against the

knives of B ;—it appears in this case, that A enjoys for her 12 hours' labour 50 pieces of silk and 50 pieces of cutlery, making 100 commodities. And it appears that when she divides the same labour between making silks and knives, refusing to exchange with her neighbour, she enjoys for her 12 hours' labour 50 pieces of silk and only 40 pieces of cutlery ; making only 90 commodities.

Now, the first case is the case of free trade : the latter is the case of restrictions on trade ; and thus the latter produces 10 per cent. less wealth than where interchange is free.

This is the broad ground on which the advocates of free-trade take their stand. On the strength of this principle we assert, *that inasmuch as trade is restricted commodities are diminished* ; and with commodities wages, since wages can alone consist in commodities.

Of all the causes which diminish wealth and wages, I believe restrictions in trade are the most potent. Owing to the strong development of the other elements of abundance, it is true, that, as in Belgium, where the earth is pregnant with wealth, the non-producers few, and the productive classes eminent for industry—it is true I say, that such countries may flourish in spite of restrictions on trade ; but, if we look to Switzerland, we shall see the far more potent influence of free trade, in spite of territorial sterility. Look again at France. France, in spite of her great skill in some of the arts—in spite of her fertile soil, producing more food than her population can consume—and in

spite of her natural facilities in many branches of production, is by many degrees less forward in manufactures, and is, in proportion to her population at least, one-third less wealthy than *Switzerland*, which possesses not one-half the food necessary for her population, which is placed under every topographical disadvantage, and whose soil furnishes the raw material of hardly one single manufacture in which she excels. I know of no country so flourishing as Switzerland, and there are few in Europe less so than France, and that whilst she possesses abundant facilities for commercial wealth. I trace the cause of this signal difference to the fact, that, whilst the shores and frontiers of France bristle with Custom-houses, and she possesses the highest protective tariff in Europe; Switzerland has not a single Custom-house—levies not a single duty—and has not one protection to commerce among her laws. The result is, that capital and industry flow solely in the most productive channels. Skill and enterprise seek the field in which they have the greatest natural capacity to excel; and not being weakened by having to furnish protective props for trades which cannot support themselves, they realize a far greater amount of exchangeable produce than could possibly be effected, were they obliged, first, to purchase the other commodities of life at a protected price; and secondly, to have their foreign market cramped by the Custom-houses which bar out the foreign purchaser.

France has one of the most rigorous tariffs in Europe; and reminds one most forcibly of the monkey system of feeding so admirably described by the *Examiner*: no one monkey ever feeding out of his own platter, but always robbing his neighbour, and spilling half the food in the scramble.

Now, this is just the case in France, where almost every trade robs the other and the consumer to boot, by way of making every body richer; and France, nevertheless—wonderful to relate!—is getting poorer! Take the cotton-spinning as an example: in order that the cotton-spinners may be protected, our yarns under No. 170^s are prohibited, and all above that number are admitted at a protecting duty. The weavers have got similar protection; and of course nearly all cotton goods in France are sold at a high price. This, one would imagine, must be at least highly profitable to the fortunate monopolists: no such thing; no class complained more bitterly to me of their wofully distressed condition. They had, it is true, their paws in their neighbour's platter; and every body in France pays dear for their calicoes and muslins; but their right to protection being of course no greater than other people's, there are other monkey monopolists, who claim a similar immunity to pilfering. The iron-masters have got their protecting duty of 25 per cent. on all foreign iron, and force the cotton-spinners in their turn to buy their bad iron at high prices for spinning machinery. It was certainly an edifying spectacle to see the cotton-



spinner, with his left hand in the pocket of all the consumers of cottons, lifting up his right hand in the fervour of virtuous indignation at the atrocious pilfering of the unprincipled iron-master. The iron-master in his turn proved to be an equally injured individual, and assured me that if the horrible rascality of that protecting duty on coals was to be continued, and the thievish coal-masters protected by that iniquitous duty on cheap foreign coal, he firmly believed that the destruction of commerce was inevitable.

I believe, then, that the four agencies of wealth—territorial productiveness, industry and skill, fewness of non-producers, and freedom of interchange—alone determine the abundance of commodities which constitute the wealth of a country; and as the share of the labourers must primarily depend on the abundance or scarcity of what there is to share, I trust it has been demonstrated, that, the other agencies remaining the same, the wages of labour will be increased by freedom of trade, and diminished by restrictions. I have promised to confine theory within its narrowest limits, and I shall keep my word; but with the fooleries afloat, launched even by the staunchest advocates of free trade, silence on this point is impossible. They contend “that wages would fall, but not so much as the price of food, were the corn-laws repealed.” This is a most pernicious fallacy. Wages could not fall were the corn-laws repealed. How is foreign corn to be paid for but with com-



modities ? (I will demonstrate hereafter that it can be paid with nothing else, though it is nearly a self-evident truth.) How are these extra commodities to be furnished for the repayment of the foreigner, if not by means of labour ? But as an extra amount of commodities is needed, an extra amount of labour must be had. But though the demand for labour be increased, the number of labourers remains the same ; and I should be glad to learn how labour, under such circumstances, is exempted from the universal law of supply and demand ; or how it differs from every other commodity, *of which the price rises when the demand increases without increased supply*. That the labourers must be benefited by what increases food, is sufficiently manifest from the simple fact, that the non-labouring class have as much food already as they can possibly desire. Who, then, is to eat the additional supply, if it be not those who have *not* as much as they want, and can eat more ?

With respect to combinations and their effects on wages, they operate, of course, just as protecting duties do on certain trades, to the profit of the few protected, and to the injury of the many excluded. I shall speak of combinations hereafter.

Boards of trade, and minimum of wages, mean, in other words, combinations by act of Parliament ; but as combinations are merely monopolies, and operate simply by exclusion, boards of trade would be impracticable, owing to the universality of their operation. For it is clear that they could not ef-

feet the slightest addition to the fund for the payment of labour ; and supposing they could take effect at all, they would necessarily diminish employment ; because, in order to raise the wages of one portion of workmen, the others must go wholly without work, the proposed law forbidding any one to work for wages lower than the rate ordained. The effect of this would be, first, to starve those deprived of employment ; and, secondly, to diminish production, reduce capital, raise the price of provisions, and gradually starve the remaining portion of workmen. A happier plan for the extermination of labourers was never devised. Combinations do not produce this result, merely because they are not extensive enough. Of course, if it be an element in the plan that the minimum shall so sink with the circumstances of the market, that it shall never exclude and starve any portion of labourers, nothing more would be effected than by having no law at all. The atrocity of a minimum of wages rendering it penal for a man to sell his labour at what he chose, would cause any such law to be immediately broken. Labour is like trade, and has no higher interest than freedom : it is the element of all good. There are but two ways of raising wages ; by facilitating production by means of skill, industry, and interchange, and of restraining within the narrowest limit the number of nonproducers. All nostrums for raising wages other than by these means, are based in ignorance and fallacy.

## CHAPTER VIII.

### THE MENTAL AND MORAL CONDITION OF THE ARTISANS ABROAD.

Contrast between Foreign and Home labouring classes—Education of working classes abroad—France—Belgium—Austria—Switzerland—High civilization, prudence, and beauty of the social system.

IT would require volumes to exhaust this topic. Nevertheless, it requires but a glance at the turbid discontent of one large portion of our industrial populace, and at the sullen misery of another, to perceive that there is a gangrene of perilous character corroding the vitals of the people. Extend your glance abroad, and the contrast strikes you still more appallingly. The artisans of the Continent are, as a body, serene and contented. With less of the means of subsistence, they are neither restless nor wretched. Instances there are of exceeding poverty ; but they are more cheerful, and less prone to excitement ; the Austrians eminently so. The French, though excitable, are, for the most part, contented. The Belgians are morose, but plodding, and absorbed by their desire

for money. The Swiss are by far the most enlightened, the happiest, and the most contented. I shall offer a few running comments on the features exhibited by the moral or mental condition of the artisans abroad with whom I had intercourse.

The education of the working classes abroad attracted much of my attention; and to the care afforded by foreign governments to its advancement do I attribute much of that greater contentment, and lesser criminality, which characterizes the artisans of the Continent, and which I particularly remarked in the manufacturing districts. Here education is left to the philanthropy of individuals, or to the accidental wisdom of parents. Abroad it is deemed an element of government, essential to the comprehension of and obedience to the laws, and requisite alike to the interest of the state and to the welfare of the recipient.

In France the cost of education is provided for out of the municipal funds, which are by law authorized to support schools. In Belgium it is equally provided for by law. In Switzerland ignorance is punished; in Prussia and Bavaria education is compelled. In Austria, in addition to scholastic establishments, certificates of attendance are made passports to employment. Even in Russia, Alexander is establishing throughout his dominions, schools on the most approved system, and conducted by masters supplied from the normal schools of the civilized nations. In Egypt, under the superinten-

dence of her singular Pacha, schools and universities on the most liberal scale are every where arising ; in England, enlightened literary England, alone, does legislation reject Education as a hand-maid of government ! and in point of the instruction of the population at large, she stands sixth among the nations of Europe !

In France a new law was passed in 1834, authorizing the appropriation of a portion of the municipal funds, to defraying educational expenses in each parish. It has resulted, that, as regards Infant schools, whilst in 1834 they existed only in a few of the largest towns, such as Paris, Lyon, Rouen, Nismes, &c. there are now no less than 172 communes, which expend 174,639 fr. yearly in their support ; whilst the total number amounts to 262, containing altogether 29,514 children. A royal ordonnance of December 1837, appointed a commission to form laws for the general guidance of these schools, which has been accordingly ratified by the King last April ; though the regulation of all the details are left to the discretion of the several parishes.

Adult schools have been likewise formed. The commission had here a more difficult task to execute. The necessary separation of the sexes, and, again of each sex, the separation of the older from the younger, have rendered the progress of this most beneficial measure somewhat less speedy. However, 82,985 fr. are already devoted by 1547 communes to the aid of schools established in them ; and the Government, in the fourth year of this enter-

prize, have the credit and satisfaction of rescuing each year 36,965 of the labouring classes from the infliction of ignorance.

The primary schools which have been formerly established, and which in 1830 contained 1,642,000 children, now contain 2,650,000.

The happiest results attend the increased intelligence of the people; and although the march of knowledge is not nearly so extensive, or so rapid as it may be rendered, yet each year, in the *recrutement militaire*, the number of those drawn for soldiers, who can neither write nor read, is greatly diminishing,—one-half of the whole number having formerly, and till 1837, been found ignorant.

The following are the results of a similar scrutiny, among a number of criminals promiscuously selected :—

Neither knowing how to read or write,	.	3,172
Knowing imperfectly,	. . . . .	1,853
Knowing well,	. . . . .	620
Superior education,	. . . . .	248

Although elementary education is certainly progressing in France, real knowledge is far from being equally diffused; there is a very material deficiency in food for the popular mind in France. In almost all the countries where German is the national language, this is not the case. They have their Penny Magazines in Prussia, and cheap reprints of all foreign publications of European utility. France is, however, even behind us in this duty.

The morality of the French artisans, I was repeatedly assured, by some of the most distinguished of the statistes of France, and also by persons like the Prefect of the department of the Nord, and Mons. Delesalle of Lisle, men practically and intimately acquainted with the working classes, depends greatly on their poverty. I am aware of the perverted use to which such an admission may be turned; but, conducive as extreme poverty unquestionably is to vice, I am convinced that the highest paid artisans are usually the least virtuous. Under an improved moral discipline and a juster administration of law, such a result I am well aware would not ensue; and therefore, I attribute the immoralities of well paid workmen, rather to the absence of the elevating influences, which ought to be maturely devised and diligently applied, so as to give to increased powers of enjoyment higher channels of gratification, than to the exclusive and abstract effect of the possession of those powers, which it is the primary duty of a state to augment, rather than diminish, qualifying the possessors for their right appreciation and salutary use.

At Rouen, I find that there has been great rivalry between the schools superintended by the Catholic "Freres" and those of the "Instruction Mutuelle." I visited both these establishments in Rouen in company with Mons. Paumier, a highly respected French Protestant Minister. I found no very poor children. In fact, the children evidently



appeared, from their dress and cleanliness, to belong exclusively to persons in the easier classes of life. The exact same spirit of conflict goes on between these two sets of schools in France, as between the British and National school parties in England. In both, the priesthood desire and strive to subject all education to their exclusive control. Mons. Paumier, and other persons to whom I put the question, agreed in the statement, that in the entire population of Rouen, there might be one-third of the children under twelve years of age (but not many more) who could not write and read. Education is decidedly on the advance in Normandy, which Mons. Paumier attributes, in some degree, to the reiterated advice of the Radical newspapers to the people to cultivate it.

Much is feared from the effect of the long factory hours, where children work full time, on the minds of the rising class. The Mayor of Elbeuf, who has been consulted by the French Government on this subject, writes thus to me :—

“ It is to be feared, that, unless some prompt remedy be applied, the ancient morality of our working classes will be wholly obliterated. One means, very efficacious, would be the attentive education of children ; and particularly their later admission into the work-room. I have directed my most earnest efforts to the accomplishment of instruction since I have administered the affairs of the town.* We possess now at Elbeuf, a gratuitous school of



*enseignement mutuel* for boys, a gratuitous institution for girls, an infant school, a gratuitous Sunday school, for the adult workmen; independently of these public institutions, there are a multitude of private schools. But the good of these institutions is in a great degree frustrated, by the capital vice of introducing children into factories, at an age when evil example so easily misleads them.

“I have presented a memoir to the Government, who did me the honour to consult me.

“Here is the system I expounded:—

“To admit children from two to six years in the infant school; to receive them from six to twelve in the public schools, on leaving the infant schools. To prohibit their entrance into the factories before the age of twelve years, and only then if furnished with a certificate of being able to read, write, and cast accounts; as well that they should be of a suitable strength of constitution.”

At St Quentin, I was informed that the labouring classes were very immoral. On inquiry, I found the immorality consisted mainly in their attendance at the *Guinguettes*, dancing and coffee houses, where little else than beer was drunk; and in the fact of the girls coming to the factories in the mornings, dressed out in their ribbons for the evening's dance, in order that they might lose no time when their work was over.

Lyon beats us, and indeed the rest of the world, chiefly by the superiority of her patterns, and the

excellence of the taste displayed in designs ; most of ours are copied from theirs. This superiority is greatly due to the School of Arts, and the liberal encouragement of this branch of science by the French Government, who pay 3000 francs per annum to the support of the school of St Peter alone. The city contributes 20,000 francs besides. Not only are the students, 180 in number, gratuitously instructed in the various branches of drawing and modelling, but there is a professor expressly to teach the “ *mise en carte*,” that is, the adaptation of designs to the loom. A constant supply of talent is thus poured forth on the artistical department of the trade of Lyon : hence the signal superiority France maintains in this branch of manufacture. It is a flagrant stigma on us, that similar means are not had recourse to in England to promote the improvement of the art of designing.

I do not consider the Belgians a very moral people, and I believe they drink considerably more than most other nations. Hitherto, however, the ordinary beverage has been beer, from which a less fearful character is given on intemperance than by the use of ardent spirits. Gin, however, is much drunk at Antwerp and Brussels.

Crime is on the decrease in Belgium. The following statistical returns are not without their value ; and I have endeavoured to group those which relate to the different provinces, so as to exhibit some striking facts.

From 1826 to 1830, there was one accused person to 5007 inhabitants. From 1830 to 1834, there was one accused person to 6724 inhabitants. Thus crime in the aggregate diminished, though it has since then rather augmented.

In education Belgium is decidedly deficient: about one-third of the children are wholly ignorant. The schools are of three classes, viz. communal, *mixte*, and private. The first are schools supported by the local municipal funds; *ecoles mixtes* are also communal schools, but which derive aid or subsidy from the Government or the province. About 400,000 children are receiving education out of a population of 4,250,000, the average being one child educated to 10.7 of the population.

The following Table presents a relative view of the education, criminality, poverty, density of population, proportion of town to country inhabitants, gross population, births and deaths, in each of the nine provinces of Belgium. I have carefully collated it from state documents.

PROVINCES.	Inhabitants to every one Child at School.	Inhabitants to every one Person accused of Crimes.	Number of indigent Poor to every 100 Inhabitants.	Number of Country Inhabitants to every one in Towns.	Inhabitants to every 100 Hec-tares.*	Total Births in 1836.	Total Deaths in 1836.	Gross Population in 1836.
Namur . .	6.3	6,369	4.4	5.80	62.5	7,554	4,268	227,074
Luxemburg .	7.1	8,407	0.7	6.59	47.8	11,752	7,421	323,219
Brabant . .	9.4	5,924	21.1	2.60	180.4	21,319	15,536	592,250
Hainault . .	9.5	17,111	21.3	3.79	175.4	21,192	13,432	631,823
Anvers . .	9.7	6,138	7.9	1.90	126.8	7,493	8,482	360,180
Limburg . .	10.2	5,924	10.0	4.16	76.9	9,219	7,598	331,305
East Flanders .	12.6	5,734	13.3	3.10	253.2	24,090	17,933	758,906
West Flanders .	13.9	6,686	20.1	2.76	191.0	21,586	16,689	627,128
Liege . . .	16.2	5,440	17.2	3.09	135.4	14,372	9,875	390,715

* Nearly two and a half acres each.

The average of children at school was less favourable in 1833, when the census gave 11.3 inhabitants to every child at school. The year chosen for the preceding table was 1836. Namur and Luxemburg presented the largest amount of education in 1833, and the two Flanders the least. There are several infant and adult schools in Belgium, conducted on a very efficient scale.

It will be perceived that Liege presents the most ignorance, the most crime, and nearly the greatest proportion of paupers. It is singular that Liege, together with Brabant and Hainault, are the richest provinces, and those where wages are the highest ! If I attempted to explain this, I should say that it arose more probably from the culpable indifference to the morals and minds of the people, on the part of those who are at the head of large establishments, in more than one of the districts in question. However this may be, I have always found that high wages, without a proportionate mental training, were invariably attended with increased immorality, imprudence, and frequently with positive want.

The Austrians are a remarkably amiable, but a tame, stupid people, and little instructed, though great pains are now taken by the Government to extend education ; and no child can enter the factories without having previously passed three sessions at school. The Tyroleans, however, form an exception to the Austrian character ; they are bold,

generous, hardy, enterprising, and religious, beyond the mere formalities of superstitious observances. The generality of the Austrians are, however, of a mild and amiable character. As a people they are almost universally liked.

The Swiss are notoriously the most educated of all other nations. Though each canton has somewhat different laws for enforcing education, I believe all, without exception, punish the ignorance of children as a crime on the part of the parents. The usual mode of enforcing education is thus: the gemeindamann (or local mayor) of the parish finding children uneducated at eight years of age, warns the parents twice to send them to school. This neglected, he informs the stadtholder (prefect), who orders the land-yager (or local constable) to fine them heavily; and, if need be, to take the children to school. The fine is so heavy, and is so rigorously inflicted, that the offence seldom occurs.

I visited, among others, an excellent school in the canton of Appenzel. The system of teaching does not essentially differ from that followed in the generality of the "British schools" in this country; but as a pattern of cleanliness and happiness to the children, that of Appenzel surpasses all I saw in Switzerland.

Boys and girls are not wholly separated, and they receive their lessons indiscriminately together. M. Zellweguer, who I believe founded this school,

informed me, that though some doubts were at first entertained as to this system, it has answered admirably; the intellectual superiority of the boys acting favourably as a stimulus to the emulation of the girls, and the milder manners of the latter softening the roughness of the boys. A separate house is appropriated to each sex to live in; the girls, however, performing all the household service in both houses.

I was told that, though of both sexes there are children of fourteen years old, it is a rare occurrence that any attachments are formed there, or that young men marry young women both of whom were together at school. The feeling generated seems that of brother and sister, and so remains in maturer years.

I observed that, in most of the schools, the children of rich and poor were indiscriminately mixed; nevertheless, in no country can a more pleasing deference be observed on the part of the working classes towards those placed in more fortunate circumstances. This is most observable in the country districts, where a kindly feeling is reciprocal between employer and employed which I have never witnessed elsewhere. A person, to whom I was referred for information on the borders of the lake of Zug, accompanied me to some of the houses of the artisan-peasants he told me he employed. In every house, without one exception, the man or his wife, whichever happened to receive



us, held out their hands, first to him and then to me, and again shook hands on parting. Their manner was quite in accordance with this; and the shaking hands was evidently not a mere form, but the prompting of real feeling. My conductor proved to be the employer of a thousand silk looms! I could not help contrasting this with the state of feeling between those placed in a similar relation in Scotland or Lancashire!

In Zürich, a botanical garden has recently been planted, containing many valuable plants, on ground which originally formed some of the outworks of the fortifications of the town. I found it, to my surprise, not only open to the public, but not even surrounded by any fence or railing. Nevertheless, the plants were wholly uninjured, and were left there in perfect confidence that the public would respect them. The railings were in preparation, but when they are erected the garden will be left open. I am afraid that a botanical collection equally exposed in England, would scarcely meet with the same respect; and that the botanists of England would not be hazardous enough to entrust equally valuable plants without fence or guardian.

I will state a fact communicated to me by M. Zellweguer, as illustrating at once the prudence and prosperity of the Swiss peasantry.

A few months ago, during a high wind, the most windward house in the village of Heiten (Ap-



penzel) took fire ; the houses were all of wood, and in a few hours the entire village was burnt to the ground. The loss of property was estimated at 400,000 florins ; and as the place was occupied almost entirely by the labouring classes, a liberal subscription was immediately raised for the relief of the sufferers. When the distributors of the charity tendered the proffered aid, to their great surprise they found but 140 individuals, not half the population, who required any relief, the rest having been received by their various relatives into their houses ; an assistance which, added to the savings of the sufferers, enabled them to dispense wholly with the bounty of their neighbours.

The Swiss are constant in their attendance at places of public worship, and are in all points regarding general morality superior to any other community. The austere discipline of Calvin, and the rigorous religious training he imparted to the Swiss people, have incarnated the national character, and go far to account for the industry, as well as the moral rectitude, so eminently possessed by them.

Population is very nearly stationary in Switzerland. Thus, three elements combine in rendering the Swiss people pre-eminently prosperous. *1st*, Every man produces what he has most capacity to produce, freely exchanging it with what he most wants from other countries. *2dly*, Everybody is a producer, there being no idle class. *3dly*, There

are fewer children. Production is extended to its utmost limits ; mouths are restricted to the smallest number. If I was asked why the Swiss have had the wisdom to devise, and the power to effect, so excellent an organization of prosperity, I should answer, by their democratical institutions.

Apart from Switzerland, generally speaking, the working classes of the Continent are thoroughly indifferent to politics. Their politics, even at Lyon, where they have acted so conspicuous a part in hostility to the existing dynasty, may be attributed more to the prompting of agitators acting on the irritability of empty stomachs, than to any very decided political feeling or thoughtfulness on the part of the people themselves. The Prussian people live under the phenomenon of an excellent and liberal autocracy ; they are naturally an obese and opaque people ; but were they as mercurial as Frenchmen, or as perceptive as Scotchmen, and as democratic as the Swiss peasantry, I question whether they would not find the amendment of Prussian legislation nearly a sinecure. Whilst the King, by the diffusion of education, is, on the one hand, rooting the stability of his own paternal government in the affections of his subjects ; he is, on the other, sowing the seeds of inevitable destruction for that despotic rule which it is probable the Crown Prince may be foolhardy enough to attempt.

In the democratic cantons of Switzerland, the

people not merely govern, but govern without representatives; they make laws around the fountains in the market-places. The prosperous state of Switzerland is perhaps the strongest possible and practical proof,—first, of the high order of popular intelligence; and, secondly, *where that intelligence exists*, of the perfection of democratic government.

## CHAPTER IX.

CRIME AND PHYSICAL STATE OF ARTISANS IN  
LARGE CITIES AT HOME.

Spirit drinking—A scene taken from real life in the wynds of Glasgow—Population, and disease and mortality in Glasgow—A word on Factories.

The Scotch artisans are very greatly superior to the English in powers of mind, education, and morality. London, I believe to contain the maximum of ignorance. I believe the vices and extravagances of the British artisans (on which I have little desire to dilate) are attributable to two causes; first, to the foolish and base negligence of the aristocracy in not spreading knowledge abroad; but, on the contrary, in either disseminating darkness, or confining the diffusion of light to the most exclusive and distrusted channels. This is unquestionably the main cause. The second is the cheapness of ardent spirits, tolerated, if not devised, I imagine, for the sake of the dealers in malt. By a recent calculation, it appears that the quantity of spirits consumed in England is seven pints and one-ninth per head per annum; in Ireland, rather

more than thirteen pints; and in Scotland, twenty-three pints, per head per annum. Mr Chambers of Edinburgh thinks this not extraordinary, since in Scotland whisky is the national beverage, and everybody is drawing at the same spigot. This is precisely the evil. It is not the quantity, but the pernicious quality of the drink which is so disastrous. The slight regard paid to the amelioration of mankind, by the persons whom Providence entrusts with wealth for that express purpose, is somewhat more than any ordinary estimate of human apathy and selfishness will account for. I will endeavour to sketch, by way of example, a scene I witnessed of wholesale human degradation and misery, suffered to exist quietly in the heart of the second city in the empire.

Disease, crime, population, and commerce culminate in Glasgow. It was late on a dark damp night, when Captain Miller, the able and energetic superintendent of the police, informed me that he was going to hunt for a housebreaker, if I should like to accompany him in the excursion, for the sake of seeing something of the pestilential classes,—which would take place about one in the morning and in the wynds; which are the resort of the vagabonds *par excellence*, and which constitute the St Giles of Glasgow; though I owe an apology to the metropolitan pandemonium for the comparison. This district is bounded by the Clyde and the Tron-gate, and extends in length from the Saltmarket

to the Briggate. There are other similar districts skirting the High Street and in the Calton, comprising a fluctuating population of from 15,000 to 30,000 persons. The wynds near the Trongate are, however, the densest and the dirtiest, and it was thither our business led us on the night in question. This quarter consists of a labyrinth of lanes, varying from 7 to 14 feet in width, out of which numberless entrances open into small square courts, appropriately designated "closes," with houses, many of them in a dilapidated state, of two stories high, and a common dunghill reeking with filth in the centre. Most of these habitations are let out in flats by a fellow called the Laird, who is usually a pawnbroker or a whisky dealer in the ground-floor. These flats are again divided into one or two rooms; the better ones being let to families who can afford to pay for them, but a great proportion being lodging rooms, tenanted by an old crone who lets nights' lodging at from a penny to threepence per head, according to the accommodation afforded. We entered at least a score of these dens. The lower class predominates, and revolting as was the outward appearance of these places, I confess I was little prepared for the filth and destitution within. In some of these lodging rooms we found a whole lair of human beings littered along the floor, sometimes 15 and 20 in number, some clothed, and some naked, men, women and children all huddled promiscuously together. Their

bed consisted of a layer of musty straw, intermixed with ambiguous looking rags, of which it was difficult to discover any other feature than their intense dirtiness. There was, generally speaking, little or no furniture in these places ; not even in the rooms let to families, beyond a few stools and one or two grimy platters and dilapidated pans. The sole article of comfort in these places was a good fire, and even of the very lowest and most destitute of these dens, where not an article of furniture was visible, I do not recollect one without a fire. Thieving and prostitution constitute the main sources of the revenue of this population. There is a sprinkling of the scum of the labouring classes, but generally speaking, "What we can," was about the gist of the answer usually made to the question, "What do you do to get your living?" All ages and both sexes are indiscriminately employed in the minor or major departments of plunder ; whilst the number of young girls who carry on the trade of prostitution is exceedingly great ; and almost every lodging house, and a number of the single rooms, are open or devoted to this traffic. In one of these places, a girl whose red cheeks announced her freshness in the vortex, attracted the practised eye of the superintendent. "Who are you, lassie?" he inquired ; and the girl turned her head away and tried to hide her face ; while her female companions looked on with the brazen-facedness, which a month's practice in pro-



fligacy aptly teaches. Her story was soon elicited ; she was fresh from the Highlands ; Glasgow was a mine of wealth ; she came to seek service and high wages ; she obtained a miserable place, was turned out for some trivial fault, was thrown on the town, was starving, and was there. And there she must remain, like tens of thousands before her, and tens of thousands to come, till her brief career of vice, drunkenness, disease and starvation, exhaust their rapid rotation, and end in death. “A dozen sometimes in a day of these poor things,” said Captain Miller, “come to me to beg for honest employment ; but what can I do ?—the factories are all overstocked, the benevolent institutions would not contain one-hundredth of them ; besides, they have no characters, and if they had, there is no employment.” I thought of the corn-laws, and the sympathy for West Indian slaves, and Polish patriots, and heathen errors, and the refined feeling which teaches English religion to shun the pollution of a regard for prostitutes. We may samaritanize all respectable sinners, and christianize infidels, and shed the softest tears of pious compassion over the frailties of patrician adulteresses,—and all this in perfect accordance with orthodox christianity ; but the very idea of common low-lived prostitutes,—the mere mention of the duty of extending a hand to uplift from a worse than Juggernaut destruction, the millions of our fellow country-women, who are immolated, soul and body, in the centres of civilization—most



of them helplessly immolated—is a solecism in the morality of the respectable world, which very few christians have the courage to commit. The number of women who perish by prostitution in this country exceeds that of any other country in the whole world, by at least three to one in proportion to the population. It is a flagrant stigma on the Legislature, that it has neither the courage nor the christianity to take up this matter, and devise a national resource for these persons.

We continued our search, and ultimately discovered the object of our pursuit, in bed in a lodging room containing about eight or nine other occupants, each of whom looked drowsily on at the accustomed visit of the police. “Sandy Gray, is that you,” said Captain Miller, “we want to speak to you at the office; come, Sandy, get up and dress yourself.” There were of our party just four men, all unarmed; we were in the dead of the night in a room containing half a dozen of Sandy’s companions, and that room in the centre of a dense and savage population in plenary sympathy with felons; and it was a striking sight to see manifested the perfect power which a well disciplined and energetic police like that of Glasgow has achieved over a population incarnate with crime, and inured to violence. Sandy got coolly up, informing the damsel at his side, that it “was nae use her hiding her face, for they kened her weel enough;” and then leisurely lacing his boots, and cutting jokes with the officers,

Sandy proceeded to dress himself, and accompanied us quietly to the police prison.

I frequently visited other parts of this district, accompanied by my friends Bailie Campbell, Lawrence Hill, Esq., Dr Cowie, &c., and they were alike impressed with myself as to the fearful evil of such a nucleus of crime, filth, and pestilence existing in the centre of the second city of the empire. No pains seemed to be taken to purge this Augean pandemonium. The clergy visit it, if at all, during the day, when three-fourths of the inhabitants are prowling about the streets or suburbs. Many of the houses are condemned by the Court of Guild, as dilapidated ; and remain standing there nevertheless. These are always the most inhabited, for where they are condemned, no rent can be enforced. Hogarth conceived nothing which exceeds the picture the whisky and pawn shops exhibit late on a Saturday night.

I have dwelt on this revolting picture somewhat longer than I otherwise should, because a very extensive inspection of the lowest districts of other places, both here and on the Continent, never presented anything one-half so bad, either in intensity of pestilence, physical and moral, or in extent proportioned to population.

I have named spirit-drinking ; it is the great proximate cause of this dreadful evil. Every tenth house in Glasgow was a spirit shop at the last census ; and in the artisan districts the propor-

tion must have been one to seven ! The tee-total societies are making most strenuous efforts for the salvation of the working-classes, and, on the whole, I am disposed to consider them the most effectively useful body now in existence in this country.

The extent of crime is further developed by the police cases. It is no unusual occurrence to lock up 160 to 180 persons on one night.

In point of population, Glasgow has increased with greater rapidity than any other city in Europe. A century ago it contained 17,000 souls, and now numbers 253,000, being an increase of fifteen-fold in one hundred years. Whilst London, Manchester, and Birmingham, doubled their aggregate population in twenty-five years, viz. between 1811 and 1836, Glasgow doubled its population *in less than twenty*. This increase is in a great measure the result of immigration, chiefly of females, both from the Highlands and from Ireland, which has outstripped even the immense increase of local industry.*

The rate of mortality in Glasgow for the last sixteen years was as follows :—

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* In the Appendix are tables shewing the exact rate of progress in the commerce of Glasgow, by means of the exports from the harbours of the Clyde during a series of years.

Years.	Population.	Deaths.	Rate of Mor- tality.	Rate of Mor- tality under 10 years.	Deaths under 10 years of age.
1822	151,440	3,408	1 in 44.43	~~~~~	~~~~~
1823	156,170	4,286	1 ~ 36.43	~~~~~	~~~~~
1824	161,120	4,354	1 ~ 37.00	~~~~~	~~~~~
1825	166,280	4,571	1 ~ 36.37	~~~~~	~~~~~
1826	171,660	4,220	1 ~ 40.67	~~~~~	~~~~~
1827	177,280	4,787	1 ~ 37.03	~~~~~	~~~~~
1828	183,150	5,534	1 ~ 33.09	~~~~~	~~~~~
1829	189,270	4,991	1 ~ 37.92	~~~~~	~~~~~
1830	195,650	4,714	1 ~ 41.50	~~~~~	~~~~~
1831	202,420	5,981	1 ~ 33.84	~~~~~	~~~~~
1832	209,230	9,654	1 ~ 21.67	~~~~~	~~~~~
1833	216,450	6,050	1 ~ 35.77	1 in 75.29	50.27
1834	223,940	6,167	1 ~ 36.31	1 ~ 60.04	51.48
1835	235,000	7,198	1 ~ 32.64	1 ~ 49.92	59.15
1836	244,000	8,441	1 ~ 28.90	1 ~ 48.07	55.50
1837	253,000	10,270	1 ~ 24.63	~~~~~	~~~~~

From a comparison of this with a similar table issued some time ago, it will be perceived that the still-born are now excluded as an element in the calculation, and that the mortality is ascertained from the deaths alone.

The mortality in Middlesex, including London, has been estimated at 1 in 41, and the rate throughout England averages 1 in 51. From these facts, some idea may be formed of the extent to which fatal disease has arrived at in Glasgow, compared with the rest of the empire.

The deaths in 1837 amounted to 10,270. The most fatal diseases are fever and small-pox ; I extract one or two passages from a highly important tract, published on the subject, by Dr Cowan of Glasgow. As regards *fever*, Dr Cowan says :—

“ Causes, peculiar to Glasgow, giving rise to fever, and favourable to its propagation, must exist, and it is the duty of our civic authorities to investigate these causes.

“ Manchester, with a population at the last census of 227,808, and which, in its constitution and density, must nearly resemble that of Glasgow, has been for years, and is now, comparatively free from fever. The average annual number treated in the Manchester Fever Hospital for seven years, ending in 1836, was . . . 497

“ The annual average in Glasgow during the same period, . . . 1842

“ The number treated in Manchester Hospital in 1836, . . . 780

“ Do. . . . Glasgow, 3125

“ Fever is now diminishing in Manchester, while it is increasing in Glasgow.

“ In Leeds too, another manufacturing city, with a population at the last census of 123,393, the number of patients affected with fever and treated in hospital, amounts to 1923 during the last seven years, giving an annual average of only 274.

“ In Newcastle and Gateshead, with a population of 57,917, the number of patients treated in the institution for the cure and prevention of contagious fever during the last seven years, amounts to 276, or 39 annually.

“ In Liverpool, with a population of 189,242, 1700 cases of fever were treated in the hospital

during 1836 ; but many of these belonged to the seamen of the port, a numerous class of its population.

* * * *

“ The first point that attracts our attention is the relative mortality of the two sexes, and certainly it is very remarkable. The total mortality of the males is 1 in every  $6\frac{1}{10}\frac{2}{5}$ , while of the females it is only 1 in every  $11\frac{2}{10}\frac{1}{1}$ .

“ In the males the mortality is 14.83 per cent.

“ In the females ... 8.92 ...

“ At the age of 15 the mortality is very nearly the same in both sexes.

“ At the age of 30 the mortality of the males is more than double that of the females.

“ The rate of mortality is greatest in females at the age of 45.

“ The mortality of the Scotch and Irish was precisely the same, while that among the English, if any inference can be drawn from such a small number, was considerably less.”

As regards small-pox :—

“ The first remarkable feature is, that out of 95 patients, there were only four natives of Ireland ; and that out of 91 natives of Scotland, 70 were Highlanders, and 21 natives of the Lowlands. A very large proportion of the Highlanders were from remote islands, and all of them, without a single exception, had recently arrived in Glasgow.

“ Fifty-five of the patients had apparently been

vaccinated, and forty never had this operation performed.

“ No death occurred in any individual who presented the appearance of having been properly vaccinated.”

The following table shews the extent of mortality from these two diseases.

Years.		Population.		Deaths,	
				Fever.	Small-Pox.
1835,	...	231,800	...	412	473
1836,	...	244,000	...	841	577
1837,	...	253,000	...	2180	352

The rates of general mortality being 1 in 24.63 of the whole population. Dr Cowan is not ill justified in his belief, that Glasgow exhibits “ a frightful rate of mortality—a rate which, it is believed, is unequalled in any city in Britain ;”—or, he might have safely added—in Europe.

I attribute a very considerable portion of this mortality to the growing pestilence of spirit-drinking. Nor is the evil confined to mere spirit-drinking : opium contributes largely to the mental devastation of the artisans of Glasgow. Laudanum in an adulterated state is largely consumed by the labouring classes, and by many of the middle classes also. There is scarcely a chemist in Glasgow who cannot corroborate this statement. The lesser expense with which the effect of intoxicating liquor can be produced, by means of laudanum, is the chief cause of recurrence, in the more

advanced stages of depravity, to this fatal drug. Well may crime have arrived at its climax in Glasgow !

The factory system is attended with many unnecessary evils. In the first place, factories are generally situated in large towns, to which immorality is incidental, and where the temptations to drunkenness are infinitely great. The mill-owner is far more exempted from any care for his workmen, and the greater unhealthiness created by bad air and close dwelling, is unquestionable. The want of proper ventilation is another fearful evil, and one but little remediable in large towns by the best legislative enactments. But if it be hence maintained that factories are necessarily prejudicial, I would simply answer by pointing to that, for instance, of Mr Edmund Ashworth at Egerton, near Bolton, where the effects of fresh air, village morals, and the careful superintendence of a philanthropic employer, are proved to be more than a preventive to every evil, and, where rosy cheeks, perfect health, and strength and spirits, are practically demonstrated to be perfectly compatible with the present nature and duration of factory labour.



## CHAPTER X.

## PRISONS.

The Bridewells of Glasgow, Berne, and Belgium.

Most of the Scottish prisons are very deficient ; that of Glasgow exceedingly so. The bridewell is, however, a signal exception, and, as a correctional establishment, is perhaps the most perfect in the empire. Each prisoner is confined in a separate cell, and employed at his own business, whether asshoemakers, tailors, &c. Those who have no trade of their own are taught to weave ; a system highly convenient, there is no doubt, to the manager, weaving being a clean and easy operation to learn, but not a little objectionable on the score of increasing the number of weavers, who are already starving one another by the disproportion of their numbers to the actual demand for their labour. The cleanliness and economy of the Glasgow bridewell leave nothing to desire, and as this establishment is a pattern for Europe, I insert the following account of its inmates, and the expenses of their maintenance ; reserving the comments I have to offer on the industrial system pur-

sued, to my account of a similar prison at Berne, in Switzerland.

*Committals from 2d August 1836 to 2d August 1837 :*

In custody for the first time, . . .	1089
Recommitted during the year, . . .	431
Old offenders, . . . . .	547
Total number, . . .	<u>2067</u>
Average period of actual confinement,	63 days.

The chief offences were as follow :

Theft, 1045 ; assaults, 236 ; disorderly prostitutes guilty of assaults, 202 ; to the prison of Bridewell, including 120 convicts for transportation, 286 ; fraud, &c. 63.

There were 906 males, and 757 females, above 17 years of age ; and 331 males, and 73 females, below that age. The average number daily in confinement is 330 : the males being 188.66 ; the females 141.33.

The following were the total receipts and disbursements in the year ending 2d August 1837 :

INCOME.		OUTLAY.	
Produce of weaving,	L.1041 8 4	Food, . . .	L.1260 13 2
Do. of twisting yarn,	426 12 9	Other household ex-	
All other branches of in-		penses, . . .	520 10 4
dustry, . . .	484 17 6	Charges on work de-	
Received for maintenance		partment, repairs,	
of prisoners detained for		&c. . . .	464 0 7
further examination, .	425 7 10	Salaries and wages,	978 2 4
	<u>L.2378 6 5</u>		
Balance,—being total cost			
to the public, . . .	845 0 0		
	<u>L.3223 6 5</u>		<u>L.3223 6 5</u>

It appears that the produce of the work maintained all the prisoners, with a surplus of L.250, 11s. 4d., which goes to lessen the expense of the repairs and wages. During the year there have been (exclusive of 314 that remained 2d August 1836) 2067 persons committed, and 2006 liberated, leaving 375 in confinement 2d August 1837. The whole deficiency, amounting to L.845, divided by 1781, the number committed to labour, shews that the expense to the public for every committal is no more than  $9/6$ , the average period of residence being 60 days. The deficiency of L.845, when applied to 286, the daily average of inmates sentenced to labour, shews the expense of each prisoner to be at the rate of L.2 : 19 : 1 per annum,  $4/6\frac{1}{2}$  per month, or nearly 2d. per day.

The average number of prisoners daily in this establishment for the last *ten* years appears to have been  $303\frac{4}{10}$ . The total cost of provisions during that period was L.10,942, which shews that the victuals for each inmate cost  $1/5$  per week. This sum does not include the expense of utensils, cooking, &c.

The following are average prices at which meal has been purchased, for which I am indebted to Mr Brebner, the governor :

In the years	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837
The boll (140 lb.) of meal cost	16/	18/6	15/9	16/	17/6	16/	13/6	14/6	14/6	21/
Do. barley (112 lb.) cost	14/	14/	13/	13/	12/5	11/6	11/	10/6	10/	13/
Bread per cwt, 112 lb.	15/	13/	12/8	12/	12/5	11/6	10/5	12/	10/	13/

The bread cost, on an average, 1½d. per lb. Contracts for supplying the institution with all kinds of provisions are of course entered into at a time of the year when things are cheap. Although one of the chief punishments is scanty diet, I can testify the extreme healthiness of the appearance of the prisoners, forming a striking contrast to the well paid inmates.

I visited the prison at Berne, containing 320 prisoners. The establishment is admirably conducted, though there are others in Switzerland, at Lausanne, &c., equally good, if not better. It is much on the same system as the Bridewell at Glasgow, all the prisoners being employed at some handicraft. There were tailors, shoemakers, weavers, &c., all employed at their own occupation. The cleanliness and order preserved in this establishment left nothing to desire. Two differences existed worth notice between this and the Glasgow Bridewell. One is, that the prisoners work for the most part together at the Berne Bridewell, instead of in separate cells, as at Glasgow. Perfect silence is preserved, however. The other chief difference is, that, in addition to a large workshop apart from the prison for those who work as carpenters and cabinetmakers, a certain number both of men and women are daily selected in rotation to perform out-door work, which is paid for as job-work by the farmers, the payment going, together with the proceeds of the internal industry of the prison, to

defray its expenses. The prisoners are marched in bands to the country, and perform in fact any out-door work that offers, under the guard of soldiers. I have frequently, in the interior of Germany, seen men convicts sweeping the streets ; but women are, I believe, not so generally employed in out-door labour.

M. Tscharner, the Avoyer of Berne, told me that he was somewhat doubtful as to the efficacy of the system of employing prisoners out of doors. His chief reason appeared to be, that the diet and treatment were so good, that the public display of such well-looking plump personages in the shape of prisoners acted as any thing but a terror to those whom it might be useful to impress with a salutary awe of “*durance vile*.” The fact is, that the system pursued at the Berne Bridewell, of regular exercise, wholesome food, well ventilated rooms, early rising, cleanliness, and total abstinence from spirituous liquors, necessarily constitutes a *regime* for the promotion of health as perfect and effective as it is well possible to devise. I cannot, however, subscribe to the apprehension of the worthy Avoyer. The love of liberty is sufficiently strong in the affections even of the vagabonds of Switzerland, to render the situation of a prisoner, however plump, one of almost universal aversion. Neither is it any answer to remark, that occasionally a prisoner, when emancipated, commits a crime at Berne, for the purpose of being recommitted. A person once

imprisoned in a country like Switzerland, where high moral rectitude of feeling is so general among the people, loses caste, and frequently the means of employment : at any rate, the disgrace of the punishment is no longer an evil to be dreaded, but an infliction already incurred, from which it is impossible to escape. I allude, of course, to prisoners who have committed some disgraceful act, and who could alone be supposed to envy the diet of a prison.

I believe the plan of employing prisoners in some profitable industry to be worthy of the most extensive imitation. I could not help contrasting the admirable school of industry presented by the busy artisans in the prison at Berne, with the pernicious indolence of the equally well fed paupers in Bledlow workhouse. I believe no possible benefit can atone for the flagrant injury done by inuring persons, kept at the public expense, to inactivity. The mind is enervated, and the powers of vitality are corroded, by the unnatural and intense slothfulness induced by cooping up a man within a small space who has nothing to do. Many people exclaim against allowing paupers or prisoners to be industrious ; and justify the addition of indolent habits to the infliction of loss of liberty, by a regard for the interest of the independent labourer out of doors. This seems to me very mistaken economy. Neither workhouses nor prisons can be supported but at a heavy expense. The rates or imposts

which defray it must proceed from the capital of the country, or, what is the same thing, the fund for the employment of labour ; but if, by teaching the inmates of prisons and workhouses industry instead of idleness, prisons and workhouses are made to support themselves, it is evident that capital, or the fund for employing independent labour, is relieved to the same amount ; and that it will be the same thing to independent labourers whether they share the increased sources of employment with prisoners and paupers, or whether they monopolize the employment of which the sources are diminished by the burden of idle poorhouses and prisons. The real fact is, however, that it is, in the long run, better for the independent labourer that prisons and poorhouses should be productive, seeing that the wealth or capital of a country is exactly proportioned to the sum-total of its productions ; the share of the labour depending not on the smallness of the number of *hands working*, but of *mouths eating*.

In Belgium also a similar system prevails. Work is given to prisoners, and the value of the produce amounts yearly to a million francs : they are employed almost entirely in work for the army. Capital punishments are nearly extinct. There are penitentiaries for women, and a “ school of reform ” at St Bernard for criminals under eighteen years of age : independently of which, liberated prisoners are placed under the care of the administrative

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commissions of the “prisons pour peines,” and under that of the colleges of the governors of the common gaols, with a view of preserving them from relapse, and of facilitating to them the attainment of profitable occupation. We much want some similar institution in Great Britain. Our correctional code is as much too severe as our reforming discipline is abortive.



## CHAPTER XI.

### COMBINATIONS AT HOME AND ABROAD.

Futility and evils of combinations—Rouen and Lyons only exceptions to absence of them abroad—Outrages at Glasgow—Aid to strikes of capital invested in machinery, illustrated from experiences in Scotland.

I have already stated, that combinations such as in England, scarcely exist at all abroad. The only exceptions that I am aware of, occurred at Rouen and Lyons. At the former, the union have at various times proceeded to outrages—

At Rouen, having ascertained to a certainty that the disparity was very great between the latter and other classes, I suspected at once that there must be combination in the case. After some inquiry on the subject, I found, that not only did associations exist, but that, not long since, they were of a very formidable character. About seven years since, an armed body of combinators seized a manufacturer of the name of Arnotisant, marched him down the boulevards, and debated among themselves, as to the choice of a convenient branch to hang him upon. A regiment were obliged to be called out; on another occasion a man was

killed, and on another a gens-d'armes. These demonstrations of physical force are quelled, but enough of the same spirit remains, to account fully for the disparity of wages between those who can, and those who cannot combine.

At Lyons the combinations have assumed more of the character of debating discussions ; and tolerably violent they have been. Strikes are not unusual, but I believe the acts of physical violence have been few ; except the revolution of 1834, which was less the result, as I have already stated, of political feeling, than of the exasperation of poverty, and of the desire of the weavers to amend their condition.

Combinations, in their mildest and most justifiable shape, are monopolies for the benefit of the few, to the injury of the many. That they cannot benefit the bulk of the community, follows from what has been said on the chapter on Wages ; nothing can benefit the labourer's share *in the aggregate*, except what increases the amount of commodities or lessens the number of consumers, in proportion to that amount. Combinations viewed in their operation on the whole body of a people do neither. Whenever they direct their power against the means of increasing commodities, and therefore the fund for the payment of labour, whether by means of destroying machinery, or of driving capital abroad, they of course injure labour, and diminish its aggregate amount of payment.

A friend of mine has just observed to me, that the combinations have been beneficial in teaching knowledge; which is best gained by associations and communion of thought. The question is, whether the same good could not be equally well produced by other means, unaccompanied by the evil of these monopolies of labour.

On the satanic outrages which have been enacted in Glasgow and Lancashire, I have no desire to enlarge, because I believe the wretches who could hire assassins to burn out the eyes of a young and inoffensive female with vitriol, are exceptions to even the worst grades of human nature;—phenomena, which would seem to have been created for the sole purpose of verifying the paradox, that in the lowest deep there is still a lower depth.

I would fain believe that there are a junto of hereditary fiends in Glasgow, isolated in devilry from the rest of mankind; for I find on reference to the following notes, with which I was favoured by Mr Salmond, the Sheriff's Clerk of Glasgow, that the same atrocities occurred twenty years ago.

*“ Combinations of the Operatives in and around Glasgow, viz., Colliers, Power-loom Tenters, and Dressers, and Cotton-spinners.*

“ In January 1818, I was called (says the Procurator-Fiscal) to aid in protecting Mr Dixon of the Calder Iron-Works, against an alarming combination of the colliers throughout Scotland. The articles and regulations under which they bound them-

selves, are subjoined to copy of indictment herewith produced. On the 17th January, I proceeded to Tollcross, and in the house of Gray Dennistoun Edmiston, their Treasurer, seized books, containing lists of all the combinatorers throughout Scotland, their sealed diplomas, and other books and papers. The combinatorers were bound to each other by an oath of secrecy and fidelity, under the penalty of a cruel death. I succeeded in finding out their oath, pass-words, signs, and grips, and sent information of the whole to the crown-agent in Edinburgh, about the end of January 1818; but though there was the strongest evidence no trial followed, as quietness was restored by the dispersion of the combinatorers.

“ The object of the association was, by apprenticeships, &c., to lessen the number of operatives and the out-put of coals—to create an exclusive trade to the operatives, and to keep up the price of coals.

“ The proceedings of the combinatorers are detailed in the precognition taken here, and at Greenhead, and which was sent to Edinburgh.

“ There was a strike simultaneously in all Mr Dixon’s pits—they tumultuously assembling and preventing coals from being furnished to Mr Dixon, from other places—the consequent stoppage of Mr Dixon’s iron-works at Calder, and the mal-treatment of all who gave Mr Dixon assistance.

“ This combination was completely put down at that time, by the seizure of their books and papers, and the exposure of their secrets.

“ In ———, I was called to inquire into the effects of a combination among the colliers at Mr Dixon’s coal-works, at Govanhill, near Glasgow, and from the investigation, learned that Mr Dixon had been necessitated, from the strikes of his colliers in his service, to employ a number of common labourers—the latter were exposed for some time to threats—and one night, a person named David Robertson, was, on leaving his house, near the coal pit, cruelly murdered, and his body thrown into an unwrought coal-pit near the spot.

“ It appeared that this man was of the most harmless and peaceable disposition—that he was one of the old colliers, but that the murderers, who were supposed to have come from another quarter, had mistaken him for another person, one of the nob.

“ It appeared from the examinations, that a secret combination was going on, and though the combinators were examined on oath, nothing satisfactory could be got as to the murderers, or the proceedings of the combinators.

*“ Combined Power-loom Operatives.*

“ From the precognitions taken by the Procurator-Fiscal, it has been ascertained that a combination of the operatives has existed for several years, bound by oaths of secrecy, and under regulations and for purposes similar to the cotton-spinners. The particulars will be found specified in the declarations of John Dunse and Robert Murray, pages 207 and 312 of the prosecution.

“ About the beginning of 1822, Mr David Campbell, who had then a power-loom factory in Tureen Street, Glasgow, having put off some of his workers, and engaged one James Weir; his old workers, finding Mr Campbell determined not to take them back, began to molest the persons in his employment, by threatening letters and otherwise (three of these letters were produced). Mr Campbell was obliged to part with Weir; and Weir having found employment with Mr Buchanan of the Dalmarnock power-loom factory, the same annoyance was continued till Mr Buchanan felt himself also obliged to dismiss Weir (two of the letters sent at this time to Weir, dated 18th March, were likewise produced).

“ About October 1822, Mr Andrew King, who has a power-loom factory in Cowcaddens, having engaged some hands who were not members of the combination, and David Wilkie, a tenter, who had refused to join the combination, having engaged to instruct and superintend the new hands, Wilkie became an object of the combinator's vengeance. About 7 o'clock of the evening of Tuesday the 8th of October, two men sent a boy into the factory, desiring Wilkie to come and speak with them on the outside, and Wilkie having gone, one of these men asked him if his name was Wilkie, and, on being told that it was, he immediately threw upon Wilkie a quantity of vitriol, and both men then ran off. The liquid fell upon Wilkie's face and clothes, lacerated his person, and consumed his dress: he suffered the

most excruciating pain ; his eyes swelled so much that he was unable to open them ; he was for some time unfitted for any employment, and under the hands of a medical person, and scars occasioned by the injury then received were left upon his face. One person was apprehended, suspected to be he who threw the vitriol ; but Wilkie being unable to identify him, that man, though there were other pregnant circumstances of suspicion against him, had to be dismissed.

“ On the 30th October 1822, William Armstrong and James Crum, two new hands taken into employment by Mr William Pirry, in place of some combined operatives whom he had recently before dismissed, were dogged, and made up to in the Green of Glasgow, through which they went on their way home to avoid the old spinners, and there one of the men threw a quantity of vitriol, aimed for Armstrong’s face, which, from Armstrong’s stooping, fell upon his coat and hat. Crum ran off, calling murder, having been pursued a little way by one of the men. The other two assailants being joined by the third man, the whole three attacked Armstrong, and assaulted and struck him ; and after continuing the attack for about five minutes, ran off. Armstrong’s hat was considerably damaged, and the slabs and grass on which part of the liquid fell was discoloured. Warrant was issued against three men suspected of this attack, one of whom was apprehended, but as neither Crum nor Armstrong



could identify him, nor give information as to who the assailants were, proceedings were dropped.

“ On the 7th October 1822, Mr George Aitken, who had a steam-loom factory in Tureen Street of Glasgow, having engaged Andrew Blainey, an operative who had refused to join the combination, his whole dressers struck work, and kept his factory idle, and threatened himself and Blainey so much, that he was obliged to dismiss Blainey, though a man of the best character.

“ Messrs Muir, Brown, and Co., who have a power-loom factory in Hutchisontown of Glasgow, having, by their manager Mr Edmond, taken in some new hands, the threatening letter, post-marked 27th November 1822, which is herewith produced, was sent him.

“ The new hands employed by Mr Buchanan at the Dalmarnock factory, were repeatedly annoyed and assaulted on the Street of Bridgetown, by the old hands, though in such a manner that the charge could not be brought home, and there is herewith produced a threatening letter sent to one of them, post-marked 27th November 1822.

“ On the morning of the 29th of November 1822, while Neill M'Callum, one of the new hands in Mr Buchanan's factory, was coming out of his own door to go to his work, he was made up to by a man, who, without saying a word, dashed in his face a dishful of vitriol acid, and ran off, accompanied by several other persons. M'Callum was



dreadfully injured, as attested by the certificate of Dr Corkindale and by Mr Francis Nelson, herewith produced ; he has never since recovered his sight or been able for any employment, and is now an object dependent upon public support. M'Callum could not identify any of the assailants."

In 1812, a serious strike took place at Glasgow among the weavers, and they were tried under the then combination laws. Partial and local strikes occurred at intervals, as late as 1826, when a strike took place against the Messrs Hutchison, large muslin manufacturers at Hamilton, which, together with former combinations, induced them to remove a large portion of their work to Belfast, because, as Mr James Hutchison stated in his evidence, "he found it his interest as a manufacturer to refuse compliance with the terms proposed." Mr Graham Hutchison, of the same firm, stated, "59 per cent. of our weavers are now in Ireland, 30 per cent. in Irvine, and only 11 per cent. within ten miles of Glasgow. Ten years ago, about 70 per cent. of our weavers resided within ten miles of Glasgow, and only about 20 per cent. in Ireland, and 10 per cent. in Irvine."

In Ireland, weaving prices are at present about 14 per cent. lower than in Scotland, but the manufacturer is put to extra expense in getting his work done in Ireland. This difference, however, is such as to occasion a gradual transfer of work from Scotland to Ireland.

The effect of the possession of capital invested

in machinery on the part of the employers of labour, has a singularly powerful effect in empowering combinations and strikes. This is exemplified by the difference invariably existing between the wages of the hand-loom weavers who work in factories where the property of the master is invested in the building of the looms, and where the loom belongs to the workman, and is at his own home. In the cotton trade the difference is generally 50 per cent., not entirely owing to this, but certainly in great measure so. When the capital of the master is invested in factories, the weaver, when he strikes, injures and stagnates the capital of his employer; hence his power in combinations: the hand-loom domestic weaver, when he strikes, stagnates his own capital, viz., his loom, and injures himself; hence his weakness in combination. The exceeding difference of the wages earned by the weavers in Scotland, employed on cottons and those on woollens, is another proof of the power over wages which the possession of machinery by the master gives to the artisan. In the woollen districts the looms almost exclusively belong to the manufacturers, and the men weave in factories.

This difference in wages between the woollen and cotton districts formed one of the most salient features in my investigation. At Galashiels, the wages ranged from 12/ to 17/ per week. At Inverleithen, ten miles further, I found a branch factory weaving the same kind of fabrics (trowser stuffs, woollen tartans, &c.); and finding the rate

of wages much the same as at Galashiels, I passed on to Peebles, without further inquiry :—here, six miles only from Inverleithen, I found the highest average rate not exceeding 6/ clear, the fabric being imitation muslins, woven as usual at the shops of the weavers. Here I learnt that three or four of the cotton weavers had been admitted at the Inverleithen factory on lower wages than the regular woollen weavers, but at wages 100 per cent. higher than they made at Peebles. I obtained the names of these men, and returned forthwith to Inverleithen, and called them before me, and found the fact exactly as had been stated. They were engaged by the year at 10/6 per week ; the other weavers being all paid by the ell, and earning from 12/ to 17/, and some much more.

The Inverleithen factory is a small one ; and I asked whether the same practice had obtained at Galashiels. The answer was, *that the Galashiels weavers would not permit it.*

The absence of combinations abroad may be traced to various causes ; but among the chief, at least as regards France, is that of the Conseils des Prudhommes, or councils elected from among the chief tradesmen of each town, who determine all disputes between master and men, giving invariably the advantage of any doubt to the latter. They are unsurpassed for fairness, and the decisions are without delay or expense. They are competent by law to decide any case where the sum in dispute does not exceed 100 fr. (L.4.)

## CHAPTER XII.

## THE HAND-LOOM WEAVERS OF SCOTLAND.

Two classes distinguished by age—Demoralizing effect of poverty—Mental and moral habits—Embezzlement of weft—Causes of depressed state of the weavers—Remedies.

The hand-loom weavers of Scotland are the most interesting class of artisans I am acquainted with in this country, and their case well deserved the investigation which Her Majesty instituted into their condition.

They form, both in morals and intelligence, two distinct classes, almost entirely demarcated by age. The older class, despite the demoralizing influence of their poverty, retain no inconsiderable portion of that high mental and moral merit which once signally distinguished them among the artisans of the empire.

In religious knowledge and acquaintance with the Bible, they are still equal, if not superior, to every other class of workmen in Scotland. Attendance on places of public worship is unhappily

on the decline even among the elder class, at least in Glasgow, where the influence of their poverty, owing to higher rents and rates, &c., is more pressing than in the country. Want of decent clothing is almost invariably assigned as the cause of non-attendance, and, by some of the witnesses in Glasgow, inability to pay for sittings in the churches, and dislike to accept them gratuitously as paupers. At Paisley the pernicious tenets of Mr Owen appear to have in some measure alienated weavers from attending places of worship.

In all the above points there is a marked difference among the younger generation of the weavers. They are far less educated, and far more prone to the vices, in which their poverty chiefly checks their indulgence. I have met, nevertheless, with many instances of high cultivation of mind and propriety of conduct among the younger branches of the weaving body; but I have remarked that these individuals were invariably among the more prosperous portion, and I am well convinced, that poverty has the same effect on the mind that drunkenness has on the body. I believe it to be a main instrument in the debasement of mankind. It induces, or at least aggravates, every evil impulse. It is not only the parent of ignorance, but it is the great barrier to enlightenment. When a man's whole faculties are strained to the utmost from sunrise to sunset to procure a miserable subsistence, he has neither leisure, aptitude, nor desire

for information ; he is assimilated to the beasts of burden, and gradually partakes of their animalism ; for, in the degree in which poverty bars out civilization and refinement is scope given to each brutalizing impulse and debasing passion. Pecuniary prosperity is very far from necessarily inducing either virtue or intelligence, but a community of educated and moral paupers is a phenomenon which I believe the world never did, and never will behold.

The degenerating influence of poverty and excessive toil was never more strongly exemplified than in the case of the hand-loom weavers of Scotland. The present generation were born in a position replete with every circumstance save one which could favour the mental progress of an artisan. The high intelligence of their parents, their constant companionship with them, both at meal-times and working hours,—the delicate and easy nature of their art,—the facilities it affords for attaining information, and even for reading during the operation of labour,—added to the natural stimulus to education afforded to their pride by the high intellectual reputation of their body,—all these afforded incentives and facilities for improvements, such as indisputably prove the power of the solitary counteracting curse which has, notwithstanding, dragged them from the highest to among the lowest ranks in the civilization of their class.

The evidences of decaying intelligence among

the weaving body are met with in all the towns and most of the villages they inhabit. Book societies, formerly supported by themselves alone, are either extinct, or in the last stage of existence. Newspapers, magazines, reviews, histories, travels, and books on science and philosophy, are well nigh excluded from their dwellings, where, of all others, they were formerly the most frequently found. Newspapers, Chambers's Edinburgh Journal, Tait's Magazine, and Scott's novels, are mostly read. The extent of the knowledge retained by even the elder class is necessarily circumscribed. Funeral societies I have found maintained, when every other association was abandoned. So great is the obloquy attached to pauperism, that they provide against its posthumous stigma even at the sacrifice of their living wants.

The information which the superior class most generally seek and make sacrifices to obtain, appears to be that relating to the causes which affect their condition, whether in the study of the elementary principles of political economy,—the variations and their causes in the commercial relations of the country,—or in a vigilant observance of the acts of the Legislature.

With regard to providence, there is but little scope for its exercise. However, I am of opinion that the younger class are, generally speaking, in the habit of spending their money as fast as they get it, and often before. Nor is this remark appli-



cable merely to the poorest class, but also, in a great degree, to the better paid. They marry, for the most part, from 24 to 28, perhaps not quite as early as they formerly did; but instead of first accumulating some capital in the shape of comfortable furniture, a loom, &c., they seldom now accumulate any thing worth naming. I do not think the younger class of weavers are more given to intemperance than other working men: they have certainly far less means of indulging in it; but from their greater weakness of body, a smaller quantity of liquor inebriates them. In the country districts, the morals of the weavers are generally better than in the towns. The most dissolute and immoral class of weavers in Scotland are an itinerant body called "Tramps," of whom, at least, two-thirds are said to be Irish. They take looms as journeymen from the master of a shop, who procures webs for them from the manufacturer; and not unfrequently after they are three-quarters woven, they cut them out of the loom and decamp with them. They are notorious as the most idle, profligate, noisy, drunken, and quarrelsome set of people in the weaving districts. Embezzlement of weft is the chief vice of the weavers: it is "the sin which most easily besets them;" and that it is carried on to a very considerable extent there appears no question. It is stolen by factory-girls from the mills,—from the warehouses by the persons employed in them,—and in great measure by the women who wind pirns,



and to whom it seems too great a temptation to be resisted to dispose of a spindle of weft occasionally. The persons who are at the head of this traffic reside chiefly in Belfast, and in the Bridgeton and the Saltmarket in Glasgow. They employ a number of women and hawkers, who tramp up and down the whole of the western counties, and wherever there are cotton-weaving districts, under the pretence of selling crockery or *bowls*: hence the term “bowl weft,” and “bowl corks.” The demoralization caused by this system is widely spread, and pernicious to a degree which it is not easy to exaggerate.

The weavers at large admit and sorely lament this evil: they suffer from it in all ways: for their webs are, in the first place, frequently fined for being too thin, and their wages lowered in the second, because the small manufacturer is, by the low price at which he can buy the stolen material, enabled to undersell the regular manufacturer. It is thus a double robbery of the weaver, the winder of the pirns usually spending the produce of the weft she sells. Houses in a very large way of business deal almost exclusively with these small manufacturers. One house in particular, both in the retail and wholesale trade, who formerly manufactured their own goods, having found it impossible to make them so cheaply as they could buy them ready made from the small manufacturers, have for the last few years dealt exclusively with them, and

have abandoned the manufacturing altogether. This class of small manufacturers have increased of late to an immense extent. They introduce various ingenious trickeries into their webs, which diminish the cost of production without being discernible to any but the most practised eye,—such as over wefting the folds of the cloth, which lie uppermost in the web, and especially at the gold end, which is most exposed to view. In some cases, they have the reeds made finer at one end only to save the warp, &c. Their goods are generally sold cheaper, and after careful investigation of this point, I am compelled to believe, though there may be many exceptions among them, that the majority of these small manufacturers purchase stolen weft.

The agents who are employed by the manufacturers in country places, to give out work and return it to them, often exercise great tyranny over the weavers, by keeping shops and only giving employment to those who purchase their goods, often paying them in kind. They frequently obtain agencies from the manufacturers, by offers of getting the work done cheaply, and are thus not unfrequently the means of reducing wages.

At Maybole, they are particularly oppressive to the weavers. They cut out the name of the manufacturer from the tickets, in order to conceal from one another who they are employed by, fearing lest other agents should underbid them; and sometimes with a view of preventing the weaver from detect-

ing their practice of giving out webs on their own account, of which they have stolen the weft.

The general conclusions to which my inquiry has led, are,—that a considerable state of depression in the cotton district exists, and, with slight variations, has continued to exist since the termination of the war ; whilst for many years prior to that period, subject to the same fluctuation, hand-loom weaving ranked among the best paid trades ;—that the older branches among them are a highly educated, moral, and intelligent class, whilst the younger are, in all respects, inferior ;—that the education of the children is so deficient, that the next generation will grow up in comparative ignorance.

The causes of a depression, so sudden in its origin, and continuous in its operation, appear to have been proximately the excess of labourers over the natural demand for labour. The causes which have tended to diminish the demand for those which have tended to increase the supply of labour, have operated like chain-shot in cutting down the rate of wages ; the corn-laws, and the peculiar accessibility of the weaving trade, being the causes most instrumental in the depression. There appears no prospect whatever that the weaving trade will improve. The power-loom is applicable to many fabrics, which the exceedingly low rate of wages alone enables the hand-loom to retain, without the stimulus of additional profit to the improvement of power-loom mechanism. 16⁰⁰ jaconets,

one shot under (warp No. 90, and weft No. 110), were woven by power in the factory of Messrs Monteith and Hamilton, at Blantyre. These webs are well and evenly made.

Unfortunately the case of the hand-loom weavers is susceptible of no remedy *specifically* applied to their case. Weaving is a very easy trade to learn: it is a pleasant one,—requires no capital to embark with,—and is, moreover, from its scattered and domestic character, ungovernable by combinations; and for these very sufficient reasons is, and will always be, the common sewer of unemployed labour. There must always be a worst paid trade, and weaving is naturally that worst paid trade.

Although the progress of machinery is among the reasons why hand-loom weaving cannot rise in the scale of wages, I by no means admit that, had power-looms never been invented, the weaving trade could have been one iota less depressed than it is. There seems to be always an omission of half the case on the part of the rapidly expiring economists who infer that machinery depresses the wages of manual labour. They seem wholly to forget the millions of our doubled population to whom the capital produced by machinery has, since its introduction, afforded other employment. It were well if the gentlemen who are so assiduous in their calculations of the amount of work taken from hand-loom weaving by the power-loom, would also set about a calculation of the number of hands

which, in all the varied trades of the country, power-looms have kept away from the hand-loom ; and to which, were it not for the employment afforded them by the capital machinery has created, would have deluged hand-loom weaving with an excess of hands and a depression of wages far greater than they labour under. In fact, machinery has been the sole salvation of the working classes from inevitable starvation. *

Emigration is not deemed acceptable by the weavers generally, as a means of relief: they conceive that the number of emigrants must be immense to effect any change in the condition of those who remain, and that, as to those who go, it would be preferable to bring food to the people instead of taking the people to the food. The tax on the indentures of apprentices appears to be seldom paid. In the whole of Paisley there were only three instances of it. The effect, of course, is to increase the excess of labour, by enabling the youths to commence weaving for themselves far earlier than were they bound for the usual period.

The repeal of the corn-laws was universally required by all classes of artisans and manufacturers with scarce one exception. A great benefit would undoubtedly accrue therefrom, to the existing generation of hand-loom weavers. Its effects on them individually would be, *first*, by increasing the demand for labour, and opening trades which the insufficiency of demand alone keeps combined to

enable deserving men to quit the lower branches of hand-loom weaving, which would be either annihilated by the power-loom, or left to those who do not desire or deserve to rise. The skilled departments of hand-loom weaving, to which power cannot be applied, would participate in the benefit of increased trade, and would become either the only branch remaining, or the only one respectably handed. The great grievance of the condition of the weavers consists, not in the lowness of wages—for there must always be some trade where the wages are lower than in others—but, in the fact that men of merit and talent, who have experienced and deserve better fortunes, should, by a combination of circumstances, have become enchained to a trade, which is daily sinking them lower in the depths of destitution, and from which they have not the power of escape.

## CHAPTER XIII.

SUMMARY VIEW OF THE CONDITION OF ARTISANS  
AT HOME.

Division of Artisans into Three Classes—The errors of the popular Demonstrations chargeable on the wealthy and educated classes—The danger incurred.

There are three classes of artisans, who may be thus divided, as regards their mental and moral state. First, those who think for themselves; secondly, those who think as they are bid; and thirdly, those who do not think at all. If I may be allowed to add to artisans, the remaining portion of the labouring body, I should say that these three classes were nearly topographically demarcated. The independence of thought holding sway in the north, and descending gradually into the subservience to dictation of the midland millions, and thence declining into the apathy of the south.

Of the acute intelligence, and the reflective spirit, of the Scottish working classes, I have already spoken. There are elements in the mind of the artisans of the north, which neither philanthropists nor statesmen can contemplate with indifference,



or disregard with impunity. A profound discontent pervades their body ; their periods of amusement and pleasure gradually lessen. A spirit of deep thoughtfulness is upon them, and their deliberation on the means of relief increases in depth and duration.

Were they found following in the wake of the madmen who counsel incendiarism, or heeding the frenzy of egotists and mountebanks, valorous in the conscious impunity of their impotence, I should neither accredit their grievances nor attach importance to their feelings. It is because I know that the great body of them regard such persons with contempt, that I deem those feelings of vital moment ; and their disregard as imminently perilous to the peace and welfare of society. Nothing could more certainly weaken them than a speedy and inevitably abortive recourse to violence : and on the other, nothing can more surely and effectively strengthen them than the steady progress of knowledge so intensely cultivated by working men ;—a cultivation having for its undivided object the accumulation of such powers of mind as may, at no very distant date, give to physical force a bloodless but perfect mastery over the destinies of this country. Whether rightly or wrongly, I am firmly convinced that to this goal the working classes are vigorously striving.

The charter demonstrations of England unquestionably demonstrate a spirit of uneasiness



and discontent, which evidence a disease at the core of our social system. It is true that the remedies proposed by many of the leaders at these meetings are as vicious as the doctrines they have promulgated (especially on the great principles which organize popular prosperity) are ignorant and false. It is true that many of those who have stood forth to lead the people are among the blindest of the blind, even if they be not among the basest of the base. It is true that hundreds of thousands of the people of England have shouted applause, and testified approval*, of proposals which would bury industry beneath the ruins of property, and imperil the vitality of society.

True indeed it is, that masses of the labouring millions accompany the demand for political power, with the plainest and most painful evidences that they would use that power to their own destruction. This is all true ; but what is the tale these facts tell ? On whom do they reflect shame for criminal neglect of the sacred duties of their station ? Is it not on that portion of the Aristocracy and Clergy, on whom the richest talents of wealth and education have been lavishly showered, and who have basely and wantonly violated the first behest of Christian principle in leaving the poor in darkness, and exposed them to the perils of ignorance ?—who have refused light except through

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* In the election of delegates to the National Convention.

the crevices of their own conventicles, impregnated with the dogmas of authority, and the flats of sectarian ascendancy,—who withhold instruction unless emasculated of its sole use and highest attribute in the faculty of independent reason,—men who degrade knowledge to fortify monopoly,—who have stood on the pedestals of indifference, and used their own elevation in keeping down mankind,—“the gods of this lower world who sit on their glittering thrones, indolent as Epicurus’ gods, with the living chaos of ignorance and hunger, weltering uncared-for at their feet”—these are the men on whom the errors of the working millions reflect deep shame and boundless odium.

Why are the people of a country like this,—so pre-eminent in arts—so illustrious in the triumphs of science—so glorious in the walks of literature—so powerful in the panoply of wealth and the gift of civilization—why is it that the people of this magnificent empire are immersed either in total darkness, or imperilled by the errors incidental to the twilight of knowledge, and incomparably beneath the intelligence of the mountain peasantry of an unpretending republic, encircled by the despotic empires of Europe? Oh! it is a crying shame, and a loud reproach!

It is far less of physical comforts that the people of this country stand in need, than of mental food, and stimulus and aid in the great work of moral elevation. I have no desire to depreciate the village virtues

of the aristocracy, wherever they exist; but I believe that the first step to an organic improvement in the condition of the labouring millions, must be that of the clergy and aristocracy down from their pedestals of lordly indifference, on which so large a portion enshrine themselves, and the diffusion around them of the kindly influences of sympathy and benevolence, on the part of those from whom the poor have a right to expect instruction as well as wages, and friendship as well as charity. If the poor are refractory or rebellious, disloyal to authority, or insolent to their superiors; the cause, and the sole cause, is to be found in the unchristian neglect, or the aggravating contempt, of their superiors towards the poor. This will be the only mode of curing the disorders of the working classes. Ere that time arrives, I believe a mighty and unavoidable conflict must be waged between the two opinions which ere long will rive society to its centre. True it is, that they who will stand or fall by principle are few in number—true it is, that the insidious and palsyng power of indifference,—and worse still, the allurements of compromise, have wound around and spell-bound the energies of many from whom the people rightfully expected courage and constancy in the cause of their deliverance; and it has been very truly said, that the times are not wanting for the men, but the men for the times.—Notwithstanding all this, there are

agencies in operation, which will ere long bring principle into clearer contrast with its counterfeits, and disencumber the arena of those mere personal party struggles, which have been in all times the great bane of principle, and the most formidable barrier to the progress of whatever is good, and just, and true, and great.

## CHAPTER XIV.

### ORGANIC REMEDIES FOR THE EVILS UNDER WHICH THE LABOURING CLASSES SUFFER.

Representation combined with Education—Educational franchise—Letter from Mr Thomson of Clithro.

The primary evil under which the people suffer, is want both of education and representation. Their error is, that of desiring the latter before they have attained the former. I should conceive that, if there is one proposition plainer than another, it is, That knowledge of what is our interest is essential to its attainment, and that to govern well we ought to know how to govern. These propositions are, however, practically denied by those who demand universal suffrage as the right of the people and the sole mode of fulfilling the requirements of justice. For my own part, I deny the right of a man to participate in governing others, who is bereft of the knowledge essential to govern himself.

Admitting the general right of every man to vote, I deny the right of every man to vote whether he knows how to vote or not ; and on the same

principles on which I deny the right of a lunatic to be at large, although I admit the general right of freedom.

In addition to the immediate establishment of adult, infant, general, and above all, Normal schools, on the most improved system, and on a scale of the most efficient magnitude, in which scriptural knowledge, and the daily use of the whole Bible, must be as uniformly included as all sectarian dogmas are rigorously banished—in addition to the immediate institution of these establishments throughout the length and breadth of the land, I desire the entire abolition of the present anomalous and absurd qualification of voters for Members of Parliament, and the institution of a suffrage in its stead, which shall blend the elective right with something at least approaching to a qualification for its due use. In advocating an educational franchise, it is one of my chief aims to create a new stimulus to instruction. It has long been a question among friends of popular enlightenment, whether education should be voluntary or compulsory?

Whilst the latter system would ill accord with the spirit of the British people, and conduce to anything but that good will with which it is essential to its success that the people themselves should embrace an educational system; still, on the other hand, after maturely considering the melancholy indisposition and positive difficulties

which will frequently oppose themselves to universality of education, I believe it would be found expedient to institute, not a compulsory, but a very powerful, inducement to intelligence ; and this I would do by attaching civil and political disabilities to ignorance.

I believe one of the strongest desires of the labouring millions at this time, is for universal suffrage ; and I believe that this strong desire may be applied to the promotion of education, not only without danger to the valuable institutions of the State, but with infinite advantage to their security. My desire is, that the elective franchise should, instead of being attached to an amount of property, which affords not the slightest presumption of aptitude for the selection of legislators, be extended to those only who possess a competent knowledge of reading and writing. In fact, beyond this, I do not think it just to carry exclusion : but of course the amount of education adopted as a minimum would be matter of comparatively easy arrangement, were the principle of intelligence once recognised as a fitter test of aptitude to the exercise of a function of judgment, than the possession of bricks and mortar.

The following is a plan I have lately sketched, for the purpose of proving the much greater practicability of such a scheme, than the present concatenation of complexities, contradictions, and

fraud, which we dignify by the name of a *property qualification*. I propose,—

1. That Barristers shall attend once every year for the registration of votes in the same manner as they now attend to revise.

2. That every man, claiming to vote for Members of Parliament, shall make solemn declaration (to which the penalties of perjury are attached), that he is above twenty-four years of age, under which age no one shall be entitled to vote.

3. That every such claimant shall make solemn declaration that he is not already registered in some other electoral district; or having been so registered shall then and there declare it to the registering barristers, in order that his name may be erased from the list of electors in the district he has quitted.

4. That every such claimant shall produce a certificate from the overseer of the parish in which he resides, of residence therein for the six calendar months immediately preceding the date of the claim; or, in absence of the said certificate, shall make solemn declaration to that effect.

5. That every such claimant shall be required to write legibly and intelligibly in the presence of the registering barristers, any verse or verses, consisting together of not less than 70 words, selected by the registering barristers from the Gospels, or any standard English book.

6. That the name of such claimant, having ful-



filled these several requirements, shall be thereupon immediately inscribed on the List of the Electors for Members to serve in Parliament for the borough, city, county, or district, in which the claim is made ; and said claimant be entitled to the exercise of the franchise, until he shall claim to register elsewhere ; whereupon being duly advised of the same, his name shall be erased by the registering barristers.

Such is the plan I propose. I have not named the Ballot, because I wish to treat of the extension of the suffrage alone, seeing that there may be said to exist in the minds of real reformers, no difference of opinion as to the *indispensable necessity* of the ballot, to secure the real exercise of the elective power, under *any* and *every* sort of suffrage.

Universal suffrage empowers ignorance, and affords of itself no inducement to instruction. Educational suffrage enfranchises all who have the means of judgment and access to information. It attaches a new and powerful stigma to ignorance ; excluding those alone from a public trust, which *they do not choose* to qualify themselves to exercise, and *who therefore exclude themselves*. Educational suffrage, though it cannot secure wisdom in every body whom it enfranchises, will apply a mighty motive to the aristocracy, clergy, and the middle classes, to supply the poorer electors with useful information, which their possession of the elements of education and the means of improvement will render efficient.

Household suffrage is merely a scheme for retaining all the absurdities of a brick and mortar qualification, without one of its pretended advantages—including nearly all the scoundrels in the country, and excluding the lodgers of every description, comprising, as they do, a very large portion of the best informed classes of society.

Educational franchise, whilst it gives the fullest extension which rational men can desire, will unite in its advocacy all the friends of that education it will so powerfully promote, and, therefore, an immense body of influential men who now oppose the other modes of extension of power without aptitude for its use.

By this educational test, protected and realized by the ballot, there will be brought to the control of Government, the greatest possible universality of suffrage, compatible with the greatest possible knowledge. The virtue of numbers essential to the rights of popular government will be preserved, purged only of the dross which alloys it. It will combine the fullest efficacy of intelligence and responsibility;—intelligence on the part of the electors, and responsibility on the part of the elected, to a constituency pure enough to ensure it, because exempted from the possibility of corruption. The representatives will represent the will of a majority of the whole people—a will uncorrupt and informed. My aspirations for the purity of representation do not extend further.

As civilization spreads, a suffrage based on, and proportioned to, intelligence, will grow in the favour of a people ; whilst a suffrage based on soil or bricks will as incontestibly diminish. There is permanence, therefore, in a knowledge-suffrage ; while it presents a far more alluring aspect to the timid reformer than any other yet proposed.

But I am not content with this mode alone of attaching disabilities to ignorance. I desire to extend the necessity of the same qualification to the reception of apprentices. This plan does not labour under the disadvantage of being merely speculative ; it is in active and successful operation, as the following letter, which I have received from one of the most eminent of our manufacturers, amply testifies :—

“ To J. C. SYMONS, Esq.

“ *Primrose, July 30. 1838.*

“ Sir,—I am instructed by my father, who is in the south of England, and labouring under serious indisposition, to reply to your inquiries respecting the success of our attempt to promote education amongst our work-people.

“ As you appear to be informed of the general nature of our system, I conceive that a short statement of its result in practice is what you desire.

“ The youngest class of children we employ, are from nine years of age to about thirteen. Of these, none are admitted to our works who cannot read with some degree of facility, an examination al-

ways taking place before employment is given. During the last month upwards of twenty applications for employment have been refused, in consequence of deficiency of this qualification. Apprentices in the various branches of our business are required to read and write, before they can be indentured. The usual period of indentures is from the age of fourteen to twenty-one years. We adopted this rule upwards of twelve months ago, and they whose time of indenture was not completed when the system was commenced, received notice that their employment would be suspended at the termination of their apprenticeship, unless they had made the requisite progress in the elementary branches of education. This plan has been strictly adhered to, and has been found perfectly efficacious in enforcing the necessary qualifications. Every facility for acquiring instruction has been afforded, by the establishment of evening schools, &c., with the detail of whose operation it is unnecessary to trouble you. It may suffice to say, that during two hours in the evenings, and four days a-week, instruction in reading, writing, arithmetic, grammar, and mensuration, is to be obtained for 2/6 per quarter-year. The effect of exacting these qualifications has been to fill all the Sunday and evening schools of all denominations. Since the notice was given, about eighteen months ago, of our determination on this point, upwards of 500 additional scholars have been admitted to these schools.

“We have abundant instances of parents who are anxious to get their children admitted into our employment, securing for them previously the required degree of instruction, when it is most probable every other means would have failed.—I have the honour to be, Sir, your obedient servant,

“THOMAS S. THOMSON.”

I need scarcely remark, that universal suffrage, at least whilst anything like the existing state of ignorance remains, has no more chance of enlisting in its advocacy the opinion of the intelligent body of the country, than it has of being accomplished without its aid. And the words of Mr Fonblanque cannot be too often repeated to the working classes, that “if they will separate themselves from every other class in the community, they may try their strength, but will find their weakness.” They have made the experiment, as far as universal suffrage is concerned, and have failed, signally failed ; even in the mere show of numbers. They will, perhaps ere long, see the wisdom of joining in the advocacy of a suffrage, by which they are assuredly not excluded, and which has only to be better known to enlist the certain support of all thinking and rational reformers. Then, and not till then, will any real reform be achieved.

Tee-total societies, I believe to be of extensive benefit to the working classes, for sure I am that no evil affects them equally with habits of drinking

neither is any depression of wages more effectual. As one instance out of a hundred, I may state that I found at Dumfries, that, while 12/ was the weekly average of the stocking-makers, the tee-totallers required a much higher average to be struck. One Carson, who was a tee-totaller, earned 18/ weekly.

## CHAPTER XV.

THE PROGRESS OF THE MANUFACTURING ARTS  
ABROAD, AS REGARDS MACHINERY.

Belgium—Mr Cockerill, &c.—Price of coals, English supply—  
Price of iron—Machinery in Switzerland, Zurich, &c.—  
Establishment in other countries—English law of prohibition on the export of machinery ; its effects.

Machinery is the main agent of manufactures, and no surer index of the progress of the latter can be adduced than the advances of the former. I am, I confess, not among the number of those who magnify the relative importance of the *existing* circumstances and extent of foreign competition ; but I should be wilfully blind to the plainest evidences of the truth, were I to conceal that there are symptoms throughout the Continent of a prospective, and by no means a remote, rivalry with this country in the chief of those arts of production and elements of commerce in which England has heretofore maintained a perfect and facile pre-eminence. The peril to this country is to be measured not by present competition, but by the magnitude of the preparations, and the germs of a progress which is as yet confined to a promising and vigor-

ous infancy, evidenced chiefly by the rapid increase of machine-making establishments, to a slight description of which I shall devote this chapter.

Belgium, from her mineral riches and other topographical facilities, naturally takes the lead in the progress of Continental machinery. I have already alluded to the leviathan establishment of Mr John Cockerill at Seraing, employing 3000 workmen, with seven skilful English engineers superintending the chief departments, and combining English skill with the advantage of cheap labour. The motive power consists of steam-engines of 900 horse power; and Mr Cockerill not only supplies machinery to all parts of the Continent, but has branch establishments in three different countries. In addition to spinning machinery of every description, steam-engines, both stationary and locomotive, are supplied to France, Germany, and Russia.

It is difficult to name any large enterprize of manufacturing industry, whether in Belgium, Holland, Russia, or the immense territory of the Prussian league, with which Mr Cockerill is unconnected, either as a shareholder or as the engineer from whom the machinery emanates. He has spinning-mills of flax, or cotton, or wool, in almost all the chief districts for these manufactures in the Prussian and Belgian dominions. Mr Cockerill's name is on all the locomotive engines on the Belgian railroads, and I was told that he is the contractor for those now forming in Prussia.



When we remember that Mr Cockerill's father, who established this gigantic concern, came over to Belgium a common blacksmith, and could neither write nor read, I believe, till the day of his death ; when we further consider that the machinery he turns out is, after all, of secondary reputation for quality, and extremely dear, we may form some idea of the power and magnitude of the natural advantages Belgium affords to the manufacture of machinery, and which may be reckoned as the multiplier of all her other productive powers.

Mr Cockerill, extensive as are his enterprizes, by no means monopolizes the making of machinery. Of those now commencing there are the Messrs Fairburn, who have issued prospectuses of an establishment, which was to be formed at the large factory already built at Malines, near the railroad station. Mr William Fairburn is to superintend the heavy department for engines, locomotives, &c. and Mr Peter Fairburn that for spinning-machinery, and especially for flax-spinning. There can be no question that this establishment will rival any in England. In addition to these is the company of the Phenix at Gand, on a very large scale, and in which English and Scotch engineers are already engaged. There is likewise another at Brussels, of the existence of which some mystery is made. I owe the knowledge of it to Sir Hamilton Seymour, who kindly accompanied me to see it, and owing to his good offices we obtained the unusual favour of being allowed to in-

spect the interior. It is of large dimensions, covering  $2\frac{1}{2}$  bonniers of about 6500 square feet each. This establishment belongs to one of the *Sociétés anonymes*, of which the Banque Nationale is said to be at the head. 500 workmen, of nearly all nations except France, whose operatives are not in repute in Belgium, are employed. Some of Sharp and Roberts's machinery was there. The present motive power is not above 36 horse.

There are several old established machine-makers in different towns in Belgium, but few on the same scale as those I have named. The fact is, that this industry is yet in the first stage only of its development. Mr Cockerill told Sir Hamilton Seymour, that he had all the new inventions over at Seraing ten days after they came out in England.

There is but one chance of an obstacle to the career of Belgium in her manufacturing progress of competition with England, and that one Her Majesty's Government have recently, no doubt with the best intentions, used their best exertions to remove, exertions which have met with the best reception and success on the part of Belgium. I allude to the decreasing stock and increasing price of coal in that country. The following table of its rapid rise in price is extracted from statistical government returns.

	1836.	1837.
Mons,	7 and 8 fr. per tonne.	12 and 14 fr. per tonne.
Charleroi,	13 and 14 fr. id.	18 and 19 fr. do.

Prior to 1836, Mons coal was 8 fr. per tonne at the *maximum*. It has risen in price again since last year; and the Belgian Government have consequently assented to the prayer of the English Government, to be allowed to supply them free of duty.

By France a similar *boon* has been granted to the coal-owners in England, and I need hardly say that the Belgian and French manufacturers are overjoyed at the concession.

The iron-works make equal progress in Belgium.

In 1837, there were 23 high furnaces of coke, and 66 of charcoal, in Belgium; 20 new furnaces of coke are either completed or being erected since that period. On the plain of Selessin near Liege, a company are erecting six of a colossal magnitude, which, when finished, will be the largest on the Continent.

The quantity of iron founded in the year in Belgium, was estimated at 150,000 tonnes (or about 147,640 English tons). It is now increased.

The following are the current prices of iron per *tonne*.

	1st Quality.	2d Quality.
1830, ...	465 fr. ....	390 fr.
1832, ...	412 fr. ....	322 fr.
1834, ...	393 fr. ....	304 fr.
1836, ...	413 fr. ....	324 fr.

In France, machine-making is proceeding with considerable rapidity. Mr Dyer of Manchester

has established his son at Blangy, not far from Abbeville, and there are many French competitors. There is one, especially at Reims, who turns out excellent machinery, and many at St Etienne.

At Zürich in Switzerland, there is a first-rate establishment of this sort, where iron steam-boats, down to the finest spinning machinery, are manufactured. There are nearly 700 workmen employed here, and 7 are English foremen. Mr Escher, who is one of the first and most scientific industrialists of the Continent, is at the head of this establishment, and, like Mr Cockerill, is also the proprietor of several flourishing steam-factories, some paper-mills, some weaving and some spinning-mills, not only in Switzerland, but in Piedmont, Savoy, the Tyrol, and Wirtemberg, where he is about to erect a flax-factory. Mr Peter Kennedy, late of Manchester, is in partnership with him, and superintends the Austrian mills. New inventions are frequently made. For instance, I saw a roller introduced at the end of the carding frames, round which the cards are wound, and which dispenses entirely with the pans, and consequently with a great number of hands still employed in most, if not in all, of the English mills. Again, they are enabled to unite the separate advantages of different patents in England; and at Mr Escher's factory in Zürich I saw a combination of the self-acting mules severally produced by Sharp and Roberts, and Mr Smith of Deanston, and which their patents prevent our combining in England.

Many of the foreign mechanics, who have not an equal skill in the invention or improvements of machinery, directly pirate the productions of English skill. An English gentleman told me he had assisted in putting together some new machinery in Italy, which had been cast in moulds formed from some smuggled machinery of the Messrs Crichton, with their name and the word Patent cast on it.

At Vienna, the emperor has a large establishment under his immediate patronage, and an Englishman of the name of Thomson is one of his chief superintendents. The Emperor of Russia has very large foundries and spinning-factories at Alexanderoffsky, with a General Clark at the head of the foundry, and a Mr Wilson of the factories, and at Colpenny with several English workmen. Wilson, brother of the above named, is the foreman or superintendent at St Petersburg; the foundry is chiefly for cannon. John Isherwood, formerly of Leeds, is at the head of another establishment called Waybugskey, a part of the capital.

The following information on the denizen mechanical skill in Poland is from a perfectly authentic source.

A large mill, having sixteen pair of mill-stones, moved by steam-power, and lighted with gas, was erected at Warsaw some years ago. It was at first managed by a native of France, under whose management it did not succeed. For the last six

years a Mr Kedslic, mill-factor from Leith, has been the superintendent, and he has taken out two millers and their families from the mills on the Water of Leith ; the mill is now working day and night, and succeeding well. All parties concerned there are said to be much pleased that the bill to grind bonded grain has been thrown out by the British House of Commons. They fear nothing so much as British capital, machinery, and skill, to compete with them. John Douglas and nephew from Edinburgh, established thrashing-machines and paper-mills in Poland, and have now settled as paper-mill proprietors in that country.

Since the last rebellion in Poland, James Garvie and Son, also Thomas Garvie, shawl manufacturers from Edinburgh, have succeeded in establishing a shawl manufactory thirty miles from Warsaw, upon the estate of Count Lubenskie, President of the Board of Trade there : the factory consisted of thirty looms in the month of September 1836. This same Count has erected a spinning-mill for flax, 300 feet long, 100 feet wide, 3 flats in height, and has 200 looms at work, weaving table-cloths, towelling, and linens ; also thirty shawl looms, in the month of September 1836. The yarn all spun by his own mill.

Thomas Garvie has engaged to be his overseer for the weaving department, and left the shawl factory to his brother James and Son, who are doing well.

Mr Prichard from Edinburgh, now engineer to the Government zinc mines in Poland, was in Scotland two years ago, at which time he engaged a bleacher from Perthshire, who has commenced bleaching to the above establishment. This is the first attempt at bleaching in Poland.

Mr George Blackie, engineer, from Edinburgh, is now employed on canals and public roads by the Government of Poland.

At Prussian Bohemia, at Aix in Prussia, and in Saxony at Chemnitz, there are also machine-making establishments. In fact, they are rising in all parts of the Continent with a rapidity, and to an extent, very far disproportioned either to the growth of the population or to the progress of preceding years.

English machinery is smuggled abroad in considerable quantities at a charge of 75 per cent., and sometimes for less. The increase of machine-makers abroad, and the emigration of English artisans, will, however, soon tend, unfortunately for us, to diminish this traffic ; for the very limited number of machine-makers who have, till within the last two years, been established abroad, has hitherto tended to give them monopoly prices. Seeing the utter inefficiency of our laughable *prohibition* on the exportation of machinery (driven by a screw of an inch and a half diameter), it is much to be lamented that this protection and encouragement, afforded by the smugglers' high per-centage, should



be given to foreign machine-makers, to the manifest injury of that branch of our own industry, without, in the slightest degree, benefiting the factories it is designed to protect. There are few absurdities of our custom-house legislation, which it is more urgently incumbent on the Government to abolish.

If a free exportation of foreign machinery were to take place, I have not the slightest doubt that the foreign machine-makers would be crippled, and that we should largely increase our own trade in machinery,—one, I may be permitted to remark, to which it is the policy of this country to give the fullest scope, as it is manifestly that in which we pre-eminently possess territorial and artistical capacity to excel, far surpassing that of any other nation. However, as long as we protect the machine-maker abroad, to the injury of the machine-maker at home, we must expect to see a rapid increase of this industry abroad ; one, be it ever remembered, which is the prolific parent of every other ; and, what is still worse, we must expect to see more of our Dyers, and Fairburns, and Cockerills preparing to follow their predecessors in transferring their skill and capital from the employment of home to foreign labour. I was debating the proposed imposition of a duty on our flax-yarn by the French Government, with one of the leading manufacturers of France, Monsieur Delasalle of Lille ; “ And how,” said he, “ can your Government have the face to talk to us about the impo-



licy of protecting our home industry, when it goes the tenfold greater length of prohibiting even the exportation of the articles which may indirectly aid the industry of another country. Let England abolish her prohibition on the export of her machinery; let her abolish a protecting law of her own, more stringent and illiberal than that of any other nation in Europe, before she talks to us of the benefits of free trade." Mons. Delasalle is President of the Chamber of Commerce at Lille, and in constant communication with the Government on these subjects. We had a very long discussion on the general policy of free trade. He adheres rigidly to the protective system, but not without many manifest misgivings in his own mind.

## CHAPTER XVI.

FACTS FROM THE FACTORIES, AND SKETCHES OF  
THE PRODUCE IN SWITZERLAND AND AUSTRIA.

Spindles in Switzerland—Factories—Price of yarn, &c. in Argovia and St Gall—Price of muslins, &c., and comparative table of quality and price of Swiss and English muslins and gingham—Prices of silks—The Grisons, Bâle, and cotton spinning and weaving in Austria—Produce of the mules—Cost of machinery, &c.

*Switzerland.*—The following was the number of spindles (almost all mules) in the cotton factories of Switzerland in May 1836, when a census was taken :—

Canton de Zurich,	.	.	292,916
... St Gall,	.	.	78,570
... Glarus,	.	.	40,100
... Schwyz,	.	.	5,760
... Thurgovie,	.	.	26,400
... Argovie,	.	.	123,536
... Berne,	.	.	10,000
... Bale,	.	.	31,400
			<hr/>
			608,682

Since that period, from 30,000 to 40,000 spindles have been put into activity ; and there are at this time mills building, in the neighbourhood of St Gall chiefly, which, when completed, will contain from 100,000 to 150,000 more, so rapid is just now the increase in the cotton-spinning trade of Switzerland. I have visited many of the Swiss mills and likewise of the Scottish mills, and I can distinctly state, that in no respect are those of later origin in Switzerland inferior to those of Scotland. The water-power is of course invaluable, and gives an advantage of which it is not easy to over-estimate the value. The Swiss mills are generally of less magnitude than the English or Scotch mills. At Uznacht there is a splendid new mill, belonging to a company, driving 24,480 spindles, just erected, of four stories, containing 100 windows on each side. It is fitted up in first-rate style, and is remarkable for its cleanliness and airiness. It has an unceasing supply of water from a mountain torrent, which descends immediately behind it. The largest mills are those at Windisch and Turgi, with 35,000 spindles each, belonging, the former to Henry Kemptz, and the latter, to the Brothers Bebié. The average number of spindles in the Swiss mills is not above 1000 spindles, but that is including a great number of very small ones, which drive from 100 to 200 each. From 2000 to 6000 are the commonest number of spindles in a mill.

The average prices of the yarn (mule twist) are as follows :—

No. 40, good second quality, . . .	1/
... 40, best second, . . .	1/2
... 40, first quality, . . .	1/3
... 60, good second quality, . . .	1/5
... 60, best second, . . .	1/6½
... 60, first quality, . . .	1/8
... 70, . . .	1/7½
... 70, . . .	1/9½
... 70, . . .	2/
... 80, . . .	2/
... 80, . . .	2/2
... 80, . . .	2/3

Upwards of 40,000 cwt. of raw cotton is consumed in the canton of Zürich alone, mostly spun into Nos. 30 to 50, though up to Nos. 130 are spun in small quantities. About one-seventh of the cotton tissues are printed. The total number of individuals engaged from first to last in the cotton manufactures, are but little short of 20,000. A large importation of English yarns from Nos. 80 upwards, finds its way to this and the neighbouring canton of St Gall.

The numbers spun are mostly under 80s, but I have lately seen some excellent yarn of No. 120s spun in one of the Swiss mills, and I believe that the preparations making to spin it extensively for the muslins will succeed. Indeed with English engineers to assist them, it is difficult to see how they can possibly fail.

I am as confident as of any opinion I ever entertained, that at no distant period the English yarn, at any rate those under 150^s, will find no market in Switzerland; and that of that portion now sent there to be thence smuggled into other countries, a very large portion will be supplied by Switzerland.

Mr Wegermann of St Gall told me, that they had little doubt of soon exporting cotton twist, and that they had already made the experiment at Leipsig with great success, realizing a fair profit. Mills are now erecting which will spin No. 160^s.

The only great disadvantage they possess in Switzerland, is higher priced iron; as to fuel, they enjoy an exemption from it altogether, from the abundance of water power. Whatever disadvantages remain to be deducted, on the score of carriage of the raw material, &c. are balanced by the rate of wages being at least one-third below the average in Lancashire. Machine-making is advancing rapidly in perfection, and the aptitude of the work-people is advancing in improvement; but when these elements in the race are matured, I do not believe that, after the carriage is added, our yarn will find any sale in Switzerland.

There are several cotton-spinning mills in Argovia.

The prices of this production have fallen considerably here as elsewhere. No. 40^s chain (mule twist) was sold in 1813 in Arau for 7 fr. 20 cent. per

English lb. It is now 1 fr. 60 cent. per lb. The reduction has been thus in far greater proportion than even that of the cost of the raw material ; for, in 1813, cotton wool of medium quality, was 300 fr. per quintal, and now costs 108 fr. per quintal. The reduction in the price of twist having been in double proportion, proves the advance made in the aptitude of the workmen, and the perfection of machinery: though cotton-spinning was at one period (1828) threatened by the opposition of the working classes, who (where one-fourth of the whole population vote) have the government of the canton entirely in their own hands. In 1830, the labouring classes opposed themselves with renewed vigour to the cotton mills, and two years afterwards some outrages were committed. The power of education triumphed, however, over the narrow prejudices on first-sight impressions, which alone countenance doubts as to the benefit to the people of increased machinery. The people themselves recognised the truth of the great principles which demonstrate the inseparable identity of their own interests with the abundance of those productions which constitute the wealth of a nation, and necessarily regulate the labourer's share. The labouring classes (themselves the legislature) have enacted laws confirming and promoting the march of machinery.

*Woven Goods or Tissues.*—I shall speak of these

*seriatim*, and in the same detail as I have reported on them to Parliament, as they are objects of peculiar interest to English manufacturers.

Walkringen is the chief seat of the manufacture of damasks ; and, from its growth within a comparatively recent period, there is every reason to apprehend that these articles will eventually hold a first-rate rank among the productions of the Swiss looms. The Messrs Miescher of Walkringen, and Colonel Geisbühler of Berne, were good enough to give me much information as to this branch of industry. From them and others I found that the Bernese table-cloths and napkins, are, by their cheapness, enabled to compete even with those of Belgium. I saw some damask napkins 33 English inches and 2800 chains in the breadth, a good deal over-wafted, with a pattern about 3 inches square, of which the wholesale price (bleaching included) was 3 fr. per French ounce of 44 inches. They were certainly not so well made as at Courtray or Dunfermline, but were perfectly saleable articles.

A large quantity of trowser stuffs are also manufactured in the same district ; some are of duck, others with a mixture of wool, and many striped, chiefly for the South American markets, whither considerable exportations are made. Berne and Langenthal in the Canton of Aarau, are the chief markets for the linen webs of the Bernese district.

The wages of the linen weavers are lower, when the price of provisions is considered, by about 15 per

cent. than at Dunfermline, where unions have existed.

Ginghams and ribbons are the chief tissues woven in Argovia.

I was shewn, among a multitude of other articles, a 12⁰⁰ gingham, 30 inches in width, with Turkey red and white check. Chains about No. 20^s and weft 40^s, overwefed in the proportion of 20 to 17. The weaving of this was 11 fr. for 82 French ells of 44 inches each. Winding and all *et cæteras* paid for by the weaver. The piece of 82 ells, usually woven in a fortnight; gross wages, therefore, on this work would be only 5/50 per week (or 4/7), from which winding, say /7, has to be deducted, together with all the incidental expenses to the weaver of upholding the loom, for which deduct 1/ more, leaving 3/ per week net wages. The sale-price of these ginghams, wholesale (fast colours), average about /9 per French ells, or /7 $\frac{4}{11}$  per English yard; discount 10 per cent.

A sort of striped ginghams are woven here a good deal, for Italian cloaks (stripe in the weft) 12⁰⁰ cram, 45 inches wide. These goods are for printing on. Wages paid for weaving are 27 fr. for 90 ells, of which 6 ells are considered a good day's work; making about 13 fr. 50 cent., or 10/10 per fortnight gross wages. Price of these goods wholesale is 2 fr. 50 cent per ell: discount 10 per cent.

A large branch of the industry of Argovia is devoted to the production of straw and silk articles,



chiefly for the Italian and American markets. The wages paid for these do not materially differ from the above. The profits gained in the manufacture of these goods are exceedingly large, owing to improvements of recent date, and the comparative monopoly, as yet, of the trade in the hands of a few manufacturers.

*Silk Tissues in Zürich.*—Since the fifteenth century the silk manufactures of Zürich have been known to Europe. The manufacture of ginghams and other cotton goods, as well as of worsteds and woollens, is also carried on to a considerable extent.

The silks are chiefly plain, and even those which are figured are of a lighter texture than the produce of the Lyonesse looms; with which the Zürich manufactures are in direct competition.

At Hausen, which I visited for the purpose of investigating the silk-manufactures in the stronghold of their fabrication, I collected a great deal of information on the prices of weaving and the fabrics themselves. I select the following:—

1. Marcellines plain black silk, 18⁰⁰ (*i. e.* having 3600 chains in the width of  $37\frac{1}{4}$  inches); width 31 inches. Wages, 30 fr. for 60 ells. Time, four weeks making, 7 fr. 50 cent. gross wages per week. Wholesale price of these silks, 5 fr. 85 cent. per ell.

2. Gros d'Orleans, 16⁰⁰, thick warp and weft, width 31 inches. Turin organsine chain, 28 à 30. Milan weft, 28^s to 36^s. Wages 40 fr. per 60 ells; average period of work six weeks, or 6 fr. 66 cent. gross wages per week; price 8 fr. 60 cent. per ell.

3. Florentine plain white silk, 18⁰⁰, (or 3600 chains in  $37\frac{1}{4}$  inches); 22 inches wide, single wefted (*tramé à un bout*). Weight of weft for whole piece, 2 livres 2 ounces; do. do. or chains of organsin, 30 ounces. Wages for whole piece, 15 fr.; time necessary on average to complete it, nearly 3 weeks; giving average gross wages 5 fr. per week; selling wholesale price, 2 fr. 80 cent.

4. Serge, (silk) thin and fine, 22 inches wide, vary 8 fl. or 20 fr. for 52 ells; woven in  $3\frac{1}{4}$  weeks, or 23 days' labour; making  $17\frac{1}{2}$  sous per day, or 5 fr. average per week. Price 3 fr. 50 cent. per ell.

5. Green Florentine, 18⁰⁰, single wefted, 17 inches wide. Wages 9 fr. for 500 ells, requiring 2 weeks' labour, and giving average of 4 fr. 50 cent. gross wage per week; price 2 fr. per ell.

The beams are all warped by the manufacturer. The number of individuals employed in the silk manufacture cannot be estimated at less than 14,000. Improvements are constantly making in the texture, body, and designs of the fancy goods, and it is not improbable that a successful competition will be shortly established with the Lyonese looms in more articles besides the light low-priced silks.

St Gall is the chief canton for muslins and the finer ginghams. Embroidery is also extensively carried on. I took great pains to ascertain the exact degree in which these several fabries competed with our own. During my official inquiries in Scotland, I was frequently told of the formidable competition with the Glasgow muslins and ging-

hams, anticipated from the looms of this canton and the adjoining district ; and a large house in the town of St Gall was named to me, as having offered goods in the Glasgow market, at as low or lower prices than they could be produced at there. I obtained an introduction to the house in question. It is one of the largest in Switzerland both for woven goods and cotton twist. I furnished myself with numerous patterns of these muslins and gingham, from a different establishment, and accurately ascertained the wholesale prices ; verifying the statements made to me by the retail prices asked in the shops for the same goods. My opinion is briefly this : There are two sorts of competition between the manufacturers of two countries ; first, their competition in either of their own countries ; secondly, their competition in *third* countries. *In plain muslins*, though the prices are not greatly different, I am of opinion that Scotland and Lancashire will maintain their ground over Switzerland, in any market in the world ; the evenness and finish of the Scottish goods, both books, jaconets, and mulls, are decidedly superior, and will procure for them the preference, I will undertake to say, in any third market, whither the cost of carriage shall not be greater than from St Gall. But in Switzerland itself, no competition of our goods of any of the descriptions above named can be sustained with the domestic manufactures. In all these articles (excepting plain muslins) these cantons are unques-

tionably enabled to meet us, moreover, *in many third markets*. In the article of lappets, which are woven in Scotland for starvation wages, the Swiss complain that they can do nothing against us in Brezils ; but in embroideries, which are most beautiful for curtains and drapery, and likewise in the large-flowered coarse muslins for the second class curtains, &c., they beat us both in price and design. In gingham chiefly, competition is to be dreaded by our manufacturers, and also in sprigged or coloured muslins. In both of these articles, the superiority of Swiss dyes gives a preference to their goods over ours, whenever, as is the case with gingham and coloured muslins, they can produce them as cheaply as ourselves. In order to give an idea of the evenness of the race in prices, I subjoin a table of the prices of as nearly as possible similar articles at St Gall and Glasgow. I have taken, in each case, the average wholesale prices struck from the returns of different manufacturers in both places.

ARTICLES.	Number of Chains in 18g in.	Width in inches.	Numbers of Yarn.	How Wetted.	Prices per Yard.		
					St Gall.	Glasgow.	
Gingham . . . . .	1600	30	Ch. 70s. 80s.	3 shots over	s. d. 0 7	s. d. 0 7½	
Do. . . . .	1800	30	80 90	equal	0 7¾	0 8½	
Imitation cambric . . . . .	2000	35	100 115	1 shot over	1 0	0 11	
Mull muslin . . . . .	1200	35	100 115	3 shots over	0 11	0 8½	
Do.* . . . .	1500	35	160 175	do.	1 0	0 11½	
Figured muslin for window curtains . . . . .	1800 90 flower lash }	46	130 145	do.	1 8	1 10	
Coloured lappets . . . . .	1500	36	100 110	1 shot over	0 7½	{ 3 9 for 10 yds.	
Common muslin checks . . . . .	1400	35	100 110	2 shots under	0 5½	0 6½	
Coloured striped muslin, turkey-red . . . . .	1400	36	95 100	do.	0 7	0 8½	
Strong cotton stripes† . . . . .	1600	20	40 45	do.	{ with red 4d. without 3¼		...
Pullicates, turkey-red . . . . .	1200	30 by 28	50 55	1 shot over	4/2 ₤ doz.	4/3 ₤ doz.	

* These articles are prepared and stiffened like book-muslins; the yarn from England.

† These (called Printannières) were formerly purchased in the Scottish and English markets, but are now made in large quantities in St Gall for the Levant, America, and Italy.

M. Gaspard de J. J. Wegermann told me, that, when in Scotland, he convinced himself that he could manufacture more cheaply than the manufacturers there ; and that he could now have large orders from thence, but that it was necessary always to complete them in so short a time, that he was not able to undertake them.

A Scotchman has been recently engaged by one of the first houses in St Gall, to superintend the finishing of book-muslins, and the clear finish will be introduced forthwith.

They appear to manufacture articles with great taste for the Italian markets. I saw some common pullicates, very dark colours, mostly 14⁰⁰, 34 inches square, to which an appearance resembling silk had been given by the hot cylinder ; they were sold at 3 florins 20 krentzers the dozen, and large sales were, I know, effected in them.

The system of manufacturing in these districts is somewhat peculiar. The merchant is not, as in Scotland, also the manufacturer ; there is a middle man between him and the weaver, who sometimes receives the yarn from the merchant, and returns him the goods woven. This personage is called the *fabricant* ; he makes his own terms with the weaver, to which the merchant is not privy, and generally lives among them. As this man has his own profit to make, the wages paid for weaving are extremely low, and are as nearly as possible the same in money as those of Scotland. The average wages

of adults, who work twelve and thirteen hours per day, do not exceed from 5/ to 6/ weekly, though on the finer work 7/ or 8/ may be made.

Manufacturing industry is already well developed in the canton of Glaris, and its extension is commencing in the Grisons.

In Glaris, not only are three cotton-spinning mills in the process of erection, but the weaving of the various sorts of cotton articles of St Gall, and even for St Gall merchants, is of considerable extent.

The Grisons is a canton hitherto remarkable more from the produce of its pastures than its looms. Nevertheless, manufacturing industry has taken root there, and, as far as cotton-spinning goes, I think it likely that, in twenty years' time, no canton will surpass it, if its natural advantages, both in respect to abundance of iron, and water, and wood, be made available.

At Bâle, the ribbon manufactures are flourishing, and a brisk competition is kept up with St Etienne.

There are not less than 15,000 persons in this and the neighbouring cantons who work for Bâle manufacturers, and to whom generally the looms belong of those weavers who work in the town of Bâle, living themselves in the suburbs. The necessity of preserving the privacy of patterns, renders it necessary to work in factories.



The other manufactures of Bâle, such as hosiery, printing cottons, &c. have entirely declined.

In Austria, the fabrics woven are nearly all sorts of cotton goods, but chiefly of the coarser descriptions.

Wages vary from 7d. to 1/6 per day. A girl will easily earn 36 kreutzers (1/) per day; and food being remarkably cheap, a weaver can live on 20 kreutzers (7d.) per day with great comfort, and a girl on 16 or 18 kreutzers.

The cottages and homes of the weavers indicate no poverty, though they are by no means either so clean or so comfortable as those of Switzerland; nevertheless, few are without a garden, and most of the weavers quit the loom not unfrequently for outdoor or other employment.

Mr Kennedy, in a letter which I have recently received from him, states:—

“ There are 4000 looms in this province, a number which has been ascertained officially; but what with the interruptions occasioned by cultivating the land, going to markets, &c. &c. I conceive they do not deliver more than 3000 pieces a-week; and as they have abundance of occupation, they must be exceedingly well treated, or they leave their work.”

Cotton-spinning is greatly encouraged by the Austrian Government, who have afforded this manufacture a protecting duty on our cotton twist of 15 florins on 123 lb. English weight, about 3d. a lb.



This duty, added to the carriage, would prevent any English twist from entering Austria, were it not that the Austrian manufacturers choose to keep up their prices, and to realize a profit of about 11 or 12 per cent.; with less than which they would not be content. Thus the protecting duty protects them in fleecing the consumers. I had this from Mr Kennedy himself. Accordingly, the weaving manufacturers make loud outcry and lamentation; but the spinners are at present too strong for them, and the protecting duty is maintained.

The Austrian Government most rigorously enforces the protecting duty; they make all the Austrian spinners keep a book for the entry of all the yarns spun, and the weavers of all the yarn they buy. This they compare with the imports, and are often enabled to trace the purchase of smuggled yarn to the culprit.

The internal manufactures continually approximate nearer to a total supply of the internal demand, and in the coarser calicoes some exports are taking place.

In woven goods, the Vorarlberg hand-loom weavers are subjected to the competition of those of Bohemia, where wages are much lower, and where the condition of the weaver must be fully as bad as those of Scotland and Lancashire.

In the production of yarn, the same disadvantages attend this industry which I alluded to in

Switzerland, namely, dearness of iron and distance from cotton marts, but, nevertheless, there is evident scope for larger produce ; and the increase which has taken place in this manufacture, evidences its capacity of progress. In 1828, there were 400,000 spindles in Austria, and there are now upwards of 600,000 ; new mills being also in the course of erection. I extract, from the returns to the Austrian Government, one or two specimens of the productive power of their spinning machinery.

Name of Mill.	No. of Mules.	No. of Spindles.	No. of Yarn spun.	No. of 5 lb. bundles in a year.
Schloppenhof } (Bohemia), }	...	11,520	^{s.} 20 to ^{s.} 130	24,000
Gabel; Riehler's,	4	576	30 to 60	3,456
Schonan (Austria),	...	25,000	30 to 70	100,000
Bludenz,* . . .	36	5,508	34 average	24,000

The cost of erecting machinery (except to Mr Escher, who makes it himself) is the greatest drawback. A cotton-mill of 16,000 spindles, I was informed, would cost L.37,000 to erect. From subsequent information and calculation, I should be inclined to think L.32,000 nearer the mark ; this would be at the rate of L.2 per spindle ; whereas, at the ordinary estimate in England of 17/6 per spindle, such a mill would cost us only L.14,000 ;

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* This last mill has been burnt down, and another of 12,000 spindles has been just erected.

considerably less than half. Cotton wool is brought from Trieste the whole way on the axle. However, the long hours, the low wages compared with ours, the water-power costing nothing, fully compensate for the cost of erection; and this important branch of industry may be considered to be in a very thriving state.

The Messrs Kennedy and Escher are erecting fresh mills in Piedmont and Sardinia, and a paper making establishment at Roveredo; the extent of their enterprizes is considerable, and their mills (they have also a power-loom factory nine miles from Feldkirch), on the Austrian side of the Rhine, combine the markets of Austria and Switzerland; an advantage which could not be combined on the other side of the Rhine. .

## CHAPTER XVII.

SAME SUBJECT, AS RELATES TO FRANCE AND  
BELGIUM.

Mulhouse muslins—Alsatian spinning-mills ; estimate of profits by Mons. Schlumberguer—Price of calicoes, Tarare and book-muslins—Norman articles—Necessity of Government-supply of patterns, and models of foreign productions—Lyonese silks—Prices of muslins at St Quentin—Bobbinet trade—Prices of cotton at Havre—Economy of cotton factories in Belgium—Linen trade—Cloth trade.

*France.*—The following are the prices of some of the chief muslin manufactures of Mulhouse.

Jaconet 15⁰⁰ 35 inches wide, chains No. 100s, weft 130s, 30 shots in the quarter of an inch. Sale price 1/ per ell of 44 inches. Wages for weaving, 5 sols. (2½d.) per ell.

2. A striped muslin 15⁰⁰ 35 inches wide, 2 shots over for printing, was 1 fr. 50 cent. per ell (or 1/3) ; of this considerable quantities were made, the weavers gaining between 6 and 8 fr. per week on them.

3. Fine calico 14⁰⁰, 35 inches, 2 shots over, warp much thicker than weft ; very evenly wove cloth ;

12 sols. (6d.) per ell of 44 inches. Calicoes range from this price to 10d. per ell, and some as high as 1 fr. 40 cent., according to the width.

Our manufacturers have not much to dread from Alsatian competition, excepting inasmuch as the protecting duties (which are the main cause of the backwardness of Mulhousen manufactures) prevent our articles from entering the French market. They are obliged to draw all their cotton through Havre or Marseille, it being prohibited to them to have it from Hamburg, Trieste, or any foreign port, however much more convenient to them. Coals also cost them exceedingly high :—(4 fr. 70 cent. per 100 kilogrammes, *i. e.* 3/11, per 220 lb.)

The erection of a mill, machinery, &c. included, costs about 30 fr. (24/2) per spindle, and they calculate that a 30-horse steam-engine requisite for 18,000 or 20,000 spindles, consumes 2250 kilogrammes per day of 13 hours' work, and costs about 45,000 fr.

Previous to the modification of the prohibition on the import of foreign twist, the Mulhousen mills spun yarns up to No. 250^s; but since our twist is admitted as low as 170^s on the payment of a slight duty, they have ceased to spin any high numbers; a result for which the manufacturers give almost any reason but the true one,—namely, the incontestible superiority of the produce of Manchester and Glasgow.

The following are answers given by Mr Schlum-

berguer, to some written questions which I put to him on the comparative economy, &c. of the French cotton-mills.

*Réponses aux questions contenues dans la lettre de  
Monsieur Symons du 20 8bre 1838.*

*Q. 1.* Quel est le nombre des filatures de coton en France, et quel est le nombre moyen de broches dans chacune, estimé aussi approximativement que possible ?

*R.* Il n'existe pas de statistique officielle sur le nombre des filatures de coton en France, mais des relevés approximatifs qui ont été faits évaluent à 3 millions le nombre des broches en activité. Ce nombre pourrait être réparti à peu près dans 500 filatures.

*Q. 2.* Quelle proportion du sus-dit nombre se trouve en Alsace ?

*R.* Le nombre de broches en activité renfermé dans le rayon industriel dont Mulhouse est le centre, est d'environ 600,000, réparties sur environ 60 filatures à raison de 10,000 broches par établissement

*Q. 3.* Quelles sont les autres principales contrées en France tant pour la filature que pour le tissage du coton ?

*R.* Ces contrées sont : les départements de la Seine Inférieure, du Nord, de l'Aisne, de la Somme, et du Rhone (Tarare).

*Q.* 4. Quel est l'accroissement ou le décroissement probable des filatures dans tout le pays depuis 1828 ?

*R.* L'augmentation, depuis 1828, a été tout au plus de 10 à 15 p  $\frac{0}{100}$  du nombre de broches qui existait alors.

*Q.* 5. Y a-t-il une différence essentielle dans le prix de la main-d'œuvre des différentes parties de la France ?

*R.* Il existe en France un grand nombre de filatures dans des positions isolées qui ont la main-d'œuvre à très-bas prix ; mais de tous les centres industriels, c'est en Alsace que la main-d'œuvre est à plus bas prix, et que l'ouvrier est le plus laborieux.

*Q.* 6. Quel est généralement le taux du bénéfice en pour-cents du capital employé en France dans les filatures de coton, en y comprenant l'intérêt de l'argent, et en combien de temps s'opère ordinairement le mouvement du capital engagé ?

*R.* On compte généralement sur les filatures de coton 6 à 7 p  $\frac{0}{100}$  de dégrèvement pour moins-value annuelle ; 5 à 6 p  $\frac{0}{100}$  d'intérêts sur le capital

employé, tant pour fonds d'établissement que pour roulement.

Le filateur qui pendant 10 années consécutives retire de son capital en outre de l'intérêt et du dégrèvement, 5 p  $\%$  de bénéfice, peut s'estimer heureux. Il y a eu en France qui dans les dernières 10 années ont eu un meilleur résultat, mais la moyenne a à-peine atteint le taux ci-dessus indiqué.

Le mouvement des capitaux s'opère ordinairement en 10 mois environ ; plus ou moins selon la manière d'opérer.

*Q 7* Quels sont les numéros les plus élevés qu'on puisse filer en France avec bénéfice, et quels sont les principaux obstacles qui empêchent de faire du bénéfice sur des numéros plus élevés ?

*R.* Peu de filatures en France se sont appliquées avec connaissance de cause à la filature des numéros élevés. Aucune ne s'est livrée exclusivement à cette industrie, ce qui est la principale cause pourquoi on y a fait peu de progrès. La loi qui autorise l'introduction des cotons filés étrangers audessus du No. 140^m/_m, est un nouveau découragement pour cette industrie en France. Du reste les machines pour ce genre d'industrie se fabriquent aussi bien en France qu'en Angleterre."

There are several very large spinning-mills at Mulhouse, and in other parts of Alsace. They are, however, by no means in a flourishing condi-



tion, owing to various causes; among others, the high protecting duty, which the tariff of France imposes on the importation of foreign iron, in order, as I was told in Normandy, to protect the monopoly of about fifty proprietors of indigenous iron mines.

The following are about the average prices of calicoes, cotton, and twist, at Mulhouse.

	* ECRU.		† BLANC.	
	fr. c.	fr. c.	fr. c.	fr. c.
CALICOT $\frac{3}{4}$ , 80 p. pour l'impression, l'aune,	0.68	0.71	0.75	0.77
... .. 75 1 ^{re} qual. ... ..	0.65	0.70	...	0.72 $\frac{1}{2}$
... .. 2 ^e qual. ... ..	0.62	0.63 $\frac{1}{2}$	0.68	0.70
... .. légers. ... ..	0.55	0.56	...	...
... $\frac{7}{8}$ ... ..	0.80	0.85	...	...
... $\frac{4}{4}$ ... ..	0.90	1.00	...	...
... $\frac{4}{5}$ ... ..	1.05	1.15	...	...
... $\frac{4}{5}$ ... ..	1.20	1.25	...	...
... $\frac{4}{5}$ ... ..	1.40	1.55	...	...
<hr/>				
COTON façon Louisiane, pour trame, rook,	fr. c.		fr. c.	
... Caroline, pour trame, . .	200. 0		215. 0	
... Géorgie, pour trame, . .	200. 0		215. 0	
... Mobile, pour chaîne, . .	220. 0		235. 0	
... Louisiane, pour chaîne, . .	220. 0		235. 0	
... Bahia, . . . . .	...		...	
... Porto-Rico, . . . . .	...		...	
... Fernambouc, . . . . .	...		...	
... Jumel, . . . . .	300. 0		310. 0	
<hr/>				
COTON filé chaîne en bobines, No. $\frac{27}{5}$ le kil.	3.80		3.90	
... .. en éch, $\frac{28}{6}$ ...	...		...	
... .. trame, . . $\frac{36}{8}$ ...	3.60		3.70	
... .. . . . $\frac{38}{0}$ ...	3.70		3.80	
... .. chaîne jumel, . $\frac{40}{6}$ l'éch.	0.06 $\frac{1}{2}$		0.06 $\frac{3}{4}$	

The quarters are of the French ell, about 44 inches.

* Unbleached.

† Bleached.

The prices of the Tarare muslins evince an instructive example of the effects of the protective system of the French tariff.

1. 13⁰⁰ book-muslin, soft finish, chain and weft, about 100^s and 120^s, 32 English inches wide, 1 fr. per ell of 44 inches.

2. 15⁰⁰ book-muslin, soft finish, 55 inches wide, chain and weft, about 150^s and 165^s, 2 fr. 75 cent. per ell.

3. 16⁰⁰ soft book muslin, 180^s and 190^s, width 49 inches, price 3 fr. per ell.

4. 28⁰⁰ Scotch cambric, 4 shots over, 55 inches wide, Nos. 220, 235, price 6 francs per ell.

The Messrs MacCulloch, from Glasgow, have a finishing establishment at Tarare, the only one in that part of France ; and, though their prices are said to be extremely high, they finish the Tarare goods in a style fully equal to that of Glasgow. They purchase all the fine yarn spun by Messrs Houldsworth of Manchester which is sent to France, and supply the French manufacturers with it. Not only do the Tarare manufacturers find it their interest to pay the duty, carriage, and commission, on the finest yarns (above 170^s), but they buy all the yarn they use above 120^s from Manchester also. It is sent sealed through France into Switzerland, paying the transit dues ; and from Switzerland it is smuggled back again to Tarare by way of Chambéry.

I have it on the best authority, and am prepared

with evidence to its truth, that Tarare alone consumes L.40,000 Sterling of English cotton twist, one-third of which are Nos. below 170^s, and consequently contraband; the rest in numbers up to 320^s. The cost of smuggling these yarns into France varies from 30 to 40 per cent. on the value; which the "protecting duty" on the French manufacture gives to the Swiss smuggler, and certainly a very handsome present it is. It is impossible to converse ten minutes with a French manufacturer, without discovering some injurious effect of her benighted commercial system: and consequently of the infatuation of restrictions on international commerce.

I have already noticed the lowness of the handloom wages of Normandy.

I proceed to establish this, and the cheapness of the goods produced from patterns, and their prices, which I carefully collected at Rouen, &c.

1. Checked pullicate 10⁰⁰ 33 inches by 30, Nos. 20, chain 35 weft. Wages 24 fr. for 16 dozen, woven in about 20 days. Price per dozen 6 fr.

2. Do. 12⁰⁰ 2 shots over. Turkey-red coloured check, best colour, yard square. Wages 39 fr. for 11 dozen. Sale price 13 fr.

3. Thick blue twilled calicoes for men's smock frocks, 10⁰⁰ 45 inches wide, coarse yarn. Wages 46 fr. for 120 ells, woven in 35 days. Price 1 fr. 86 cent. to 2 fr., 8 or 10 per cent. discount for cash.

These are gross wages: there will fall to be deducted loom-rent, fuel, light, agency, &c., which

may be thus estimated, taking the article number 3 as a standard, 1. Agency 5 fr. (including the use of reed which the agent furnishes) light and fuel 3 sols per day ( $1\frac{1}{2}$ d). Other incidentals, wear and tear, &c. 3 fr. 50 cent. making 10 fr 10 cent., which, deducted from the 46 fr. gross wages in 35 days, leaves, as nearly as possible, 1 fr. per day or 5/ per week. This may be taken as above rather than below the average, which fluctuates according to the immediate demand, &c. &c., from 5 to 6 fr. weekly. Children and women are both occupied in weaving at proportionate earnings. About 4 fr. is given over the above for winding.

The manufacturers of Rouen pride themselves greatly on the superiority of these productions. And it is but justice to them to say, that I have seldom seen printed cottons so good in colour and texture at 32 inches width for 7d. per ell of 44 inches, as those of Rouen at that price. They told me that they felt assured of being able very soon to compete in these articles with Manchester in third markets. I have before me a multitude of patterns from which these prices have been taken, and which I collected throughout the extent of my journey. These patterns I intend presenting to the Manchester Chamber of Commerce; and I cannot but recommend to the Government the duty incumbent on it to take means for obtaining periodical supplies of these patterns from every part of the manufacturing world. These are precisely the first duties a Government owes to the industry of

a country ; and are the protections alone due or useful to it ; and at the same time those which our Government utterly neglects. The King of the Belgians has established a splendid gallery of models of all the first-rate mechanical inventions of other countries at Brussels (many drawn from England) : it is constantly supplied with all new patterns, and artists have free admission. It is no slight stigma on us that we have nothing of the kind ; if we except the interesting peep-show at the Adelaide gallery.

The silks of France have long been pre-eminent for their beauty, and any description of mine would be wholly superfluous, in a country where the produce of the Lyonese looms are abundantly known.

The number of looms in Lyon and its environs has fluctuated considerably. In 1788, a census, made by order of the Consuls, gave 14,777 looms, of which 5442 were idle, owing to some sudden and temporary caprice of female fashion. The workmen of all sorts employed were 58,500. In 1801, the looms had fallen to 7000, owing to the war and other causes. In 1834, the number of looms was 17,281, of which 1358 were idle. The master weavers occupy about 7000, the *compagnons* 6854, and the children and apprentices 2300. This was the Prefet's estimate four years ago, and as many again were then estimated in the suburbs. Now a larger number belong to the latter, but the aggregate will scarcely be much increased.

The gross produce of the Lyonese looms was estimated in 1838 at 135 millions of fr. value per annum.

The French beat us almost entirely in silks, through the elegance in their designs, and the rapidity with which they are produced. As I have already stated, this is wholly owing to their Schools of Arts,—institutions there supported liberally by the Government; whilst here, the schools we have are both inefficient and trammelled with the absurdest regulations as to pupils adhering to the exact branch in which they enter, whatever difference of capacity they may afterwards exhibit.*

At *St Quentin*, and in the north, muslins are chiefly woven.

The prices of these goods, and the wages paid for weaving them, are as follows:—

12⁰⁰ and 14⁰⁰ checked muslins (not coloured) of a coarse description, 32 inches wide, are sold for 90 cent. (9d.) per ell of 44 inches, and the weaving paid at the rate of 1 fr. (10d.) per day. A still coarser description is sold for 65 or 70 cent., 6½d. to 7d. per ell, and the weaver gains 8d. per day. Fine lappets 32 inches wide; price 1 fr. 90 cent., 1/7, the ell, and weavers' wages 1 fr. 25 cent. or 1/ per day. Very fine corded muslins, 20⁰⁰; price 1 fr. 70 cent. per ell (39 inches wide).

These prices are of course wholesale, with 5 or 8 per cent. discount, ready money.

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* I have learned from Mr Wyse that this is now amended.

There are some very large cotton-spinning mills in St Quentin ; those of Messrs Houldsworth and Brewer, Englishmen, are among the largest ; and several likewise in the vicinity, as well as in the Departement du Nord.

The Messrs Tausin and MacCulloch (brother to the gentleman at Tarare) have here the largest finishing establishment in France.

In St Quentin and the environs there are about 700 bobbinet frames ; to each of these there are two workmen, whose wages do not exceed 1 fr. 50 cent. to 1 fr. 75 cent. per day. These descriptions of frames are scarcely sufficiently profitable to be worked at all, the demand declining constantly in this branch of the trade. There are, however, 40 or 50 Meckling frames, for the produce of which a considerable demand has arisen, and on which the wages amount to 6 and 7 francs per day. Several new frames are now making for this work, and, of course, both the profits of the manufacturer (at present immense) and the wages of the workmen will fall ere long. English yarn was exclusively used for these goods, but French yarn has come latterly much into use. The silk-spinners now supply many of the Tulle manufacturers. I have heard, however, complaints that yarns are often sold for finer than they are, the length being deficient.

Bobbinet forms the only manufacture of Calais ;



it was introduced there from Nottingham twenty years ago, and the same machines for the common net continue to be used, which cost about L.100 each. There are about 400 of these machines in and near Calais, 100 of the fancy net machines, and 40 of what are called tatting machines.

A great number of these Tulle weavers are Englishmen, who are domiciled at Calais. The Tulle trade is very much on the decline there, with the exception of the fancy lace, which is made only by two houses, viz. Webster and Wragg, Englishmen, and Champailon a Frenchman; and although the trade in this article succeeds tolerably well at present, it cannot be said to be very brisk.

The following were the prices of raw cotton at Havre de Grace

Les 50 Kilog. *	1837.	1836.	TRANSPORT par terre.
Louisiane, . . .	80 0 to 110 0	112 50 to 172 50	Les 50 Kilog.  fr. c. Rouen, . . . 1. 25 Paris, . . . 2. 25 Amiens, . . . 2. 25 St Quentin, . 3. 50 Lille, . . . 3. .. Troy, . . . 4. 50 Bar-le-Duc, . 5. 25 Nancy, . . . 6. 25 Metz, . . . 6. 25 Strasbourg, . 9. .. Mulhouse, . . 9. .. Bale, . . . 10. ..
Mobile, . . .	80 0 105 0	112 50 167 50	
Georgie C/S et } Florides, . . . }	80 0 102 50	110 0 160 0	
Virginie, . . .	77 50 100 0	107 50 150 0	
Alabama et Ten- } nessee, . . . }	77 50 100 0	107 50 150 0	
Georgie L/S, . .	215 0 550 0	310 0 550 0	
Fernambouc, . .	100 0 150 0	130 0 185 0	
Bahia, . . .	75 0 120 0	125 0 180 0	
Maragnan, . . .	75 0 120 0	130 0 170 0	
Martinique et } Guadaloupe, . }	100 0 130 0	140 0 170 0	
Haïta, . . .	75 0 100 0	130 0 150 0	
Cayenne, . . .	100 0 130 0	145 0 190 0	
Cumana, . . .	75 0 105 0	135 0 175 0	
Bengale, . . .	50 0 70 0	80 0 90 0	

* 1 Kilogramme =  $2\frac{1}{5}$  lb. avoirdupois.

50  $\frac{7}{10}$  Kilogrammes = 112 lb. avoirdupois.



STOCK.		
27th October 1838.	1837.	1836.
E.-Unis, . . . . 41,800	44,000	28,300
Bresil, . . . . 1,700	3,500	5,200
Aut.sort, . . . . 500	4,000	2,500
Total, 44,000	51,500	36,000

The amount of transports was last year up to November 1st thus :—

Imports in Oct. 1838,	5,249 bales of which	4,446 U.S.
Previously this year,	261,760	248,774

Imports first 10 months,	267,009	253,220
Ditto same period 1837,	225,898	200,938
Ditto ditto 1836,	228,379	202,336
Ditto ditto 1835,	193,016	172,589
Ditto ditto 1834,	170,372	157,089

Outg. in October 1838,	22,409	18,696
Previously this year,	234,347	220,612

Outg. first 10 months,	256,756	239,308
Ditto same period 1837,	219,608	191,263
Ditto ditto 1836,	212,500	186,993
Ditto ditto 1835,	183,810	165,802
Ditto ditto 1834,	190,596	173,982

Stock 31st Oct. 1838,	43,242	41,621
Ditto ditto 1837,	51,841	43,983
Ditto ditto 1836,	34,899	27,896
Ditto ditto 1835,	31,139	26,440
Ditto ditto 1834,	14,404	13,557

The cotton trade of France is much cramped by protecting duties. The production of the French mills will average 62,400,000 lb. of cotton yarn per year. Mr Schlumberguer, evidently lamenting over the fallen condition of his trade, writes, as we have seen, on the profits made by the French spinners : “ We reckon generally in cotton-spinning mills a deterioration of 6 to 7 per cent. on fixed capital ; and 5 to 6 per cent. as interest on current capital, (“ pour fonds d’établissement, que pour roulement ”). The spinner, who, during ten consecutive years, receives from his capital, *over and above* this profit and deterioration, five per cent. *interest*, may think himself fortunate.” That is to say, 11 per cent total net profit ! I fancy there are few of our cotton-spinners who ever realise within 2 per cent of it, and many who would be glad to realise one-half at this moment. But my friend proceeds to assure me that they are not all so much to be pitied.

There are some in France, who, during the last ten years, have enjoyed a better profit, but the greater part have *scarcely* attained the standard above named.

I confess, I wonder how it is that the French spinners manage as well as they do, considering the fearful drawbacks they encounter. In the first place, about forty or fifty people have iron mines, and therewith a monopoly. All foreign iron is alone admitted at a high protecting, in effect a prohibitive, duty. This greatly increases the cost

of machinery, and by rendering a large capital necessary to start business as an engineer, *creates a second monopoly* in machine-making. Secondly, coal is protected, and Mons. Fauquet Lemaitre of Bolbec, Normandy, assured me that he paid a duty on his English coal higher than the prime cost at Manchester. Then Le Havre and Marseille have got their protection, and nobody in France, no matter on which side of it he live, can buy a single bale of cotton which has not paid harbour-dues at one of these two ports : which, happening to be at the south and west of France, are of course peculiarly convenient for the extensive spinning-mills established in the west and north. The whole commerce of France is, in fact, crippled and withered by these insane fetters.

Nevertheless, I select the following from a multitude of evidences, that, discouraged as her spinning trade is, France is about to deprive us of some of our customers. Mr Cliff, a very large manufacturer of bobbinet, at St Quintin, an Englishman, writes to me thus :—

“ The prices of yarn are here, No. 170^s English, 14 fr. 20 cent. per lb., French, 11 fr. 87 cent. No. 180^s English, 15 fr. 40 cent. per lb., French, 13 fr. 12 cent.

“ The French spinners have made, for some years past, great progress in the manufacture of cotton for the tulle, and some of them rival nearly the English spinners : you see by the above prices, that there exists a very great difference in the price of English yarns and French yarns.”

Mr Webster, also a large tulle manufacturer at Calais, said, that he should begin now to buy French yarn instead of English, as the difference in price was no longer rendered a necessary sacrifice by the inferiority of the French yarn, which he considered would soon equal ours.

He gave the prices as follows : No. 200^s, *French*, 15 fr. 50 cent. per lb. ; *English*, 18 fr. 50 cent.

In the coarser numbers, to which the smugglers' per-centage must be added, we are still less able to compete with them.

In the north where wages are higher, a far more disconsolate tone is held by the cotton-spinners. Mons. Mimerel of Roubaix said, 2 per cent. was as much as they made : and Mr Fauquet Lemaitre writes thus from Bolbec, in addition to personal communication of the same purport :—" The best made twist, No. 30^s, (about 33^s, of our standard) sells for 4 fr. the kilogramme (that is  $1/6\frac{2}{11}$  per lb., about  $\frac{1}{3}$  dearer than in England) : there has been no variation in wages for eight years, but there has been a great fall in the price of twist, to the amount on the average of 2 fr. per kilogramme, the wool having fallen 1 fr. : all the spinners gained then ; but now all are losers, and that for the last 18 months."

France cannot nearly supply her own consumption. She imports annually at least 2,000,000 lb. of our twist, at least I find in the Rapport des Douanes for the year 1836, 80,171 kilogrammes, or 176.376 lb. merely of twist (retors). entered as

having paid duty at the custom-house, and more than the remainder would be smuggled. The following are the returns in the same rapport of the exported cotton and woollen twist and tissues, and also those for 1832 :—

	1836.		1832.
Cotton woven articles,	2,103,690	kilos.	1,993,596 kilos.
do. Twist,	39,534	...	132,925 ...
Woollen woven articles,	1,851,084	...	1,167,674 ...
do. Twist,	49,931	...	76,262 ...

The exportations are thus proved to be wholly insignificant, and to diminish as regards yarn.

*Belgium.*—The cotton manufacture in Belgium is said to represent a capital of 60,000,000 francs. Gand, Malines, and the district between these towns, is the locality of the cotton industry ; Gand being the head-quarters of the spinners. The produce of the looms amounted, two years ago, to about a million and a half pieces of gingham or coarse cotton and calicoes, and 400,000 pieces of printed cottons. An increase of about 20 per cent. has taken place since.

I had a long conversation with Mons. de Bast of Gand, the president of the *Société Cotonnière*, to whom I was introduced by a letter from the King's private secretary. The following are among the most interesting of the various points we discussed, and of the subsequent observations I made at Gand.

The number of spindles in the cotton-mills of

Belgium, just before the revolution, amounted to 300,000 in Gand, and about 100,000 out of Gand. A diminution took place after that event, to which Mr Baines alludes in his work on the Cotton Trade, p. 526, and the spindles in activity were reduced^{ed} by at least 25 per cent. up to the 1st January 1835, when 301,145 only were in activity. At the present time, the number employed exceeds 400,000. The steam-engines represent about 1000 horsepower.

Mr de Bast was of opinion, that though the labour of individuals was cheaper in Belgium than in England, the advantage had been greatly over-rated; because, first, the Belgian work-people work like mere automata mechanically, whereas, he believes, in England, they are far more skilled and interested in the art, and are able to explain the machinery, which they are not in Belgium. Again, he is of opinion, that, owing *hitherto* to the decided inferiority of Belgian to English machinery, many more persons are needed in Gand than in Manchester to perform the operations which come in the class of preparations. This disadvantage is, however, on the point of being forthwith entirely removed; and new carding and drawing machinery, modelled on a combination of our best and most recent inventions, is now in progress for more than one of the largest mills of Belgium. I could not write a description of the mechanical difference to which I allude, but its effects may be

understood by the diminution of labour it will cause in a mill of 18,000 spindles, and whereby 41 hands will suffice where 72 are now employed. The fact is, that foreign manufacturers are only beginning to realize to themselves the full power which the cheapness of labour offers to them, by uniting it with the advantages of improved machinery, in the construction of which, they are abundantly aided by denizen engineers from England. In addition to new carding and bobbing frames, they are introducing self-acting mules.

Mules are almost universally preferred to throstles (of which I saw but few abroad), owing to the much less power they require. They calculate that one horse-power drives 500 mule spindles, but only 200 throstle spindles ; and, as the object with them is the greatest possible produce, quality being a secondary consideration, they seldom adopt throstles at all.

In one mill in Gand, where I took an exact account of the produce, I found that each spindle produced 30 decagrammes per 72 hours of No. 30s ; that is,  $\frac{5}{8}$ ths of an English lb., equivalent to  $19\frac{4}{5}$  hanks per week !

The drum wheel of a Gand cotton-mill makes 150 revolutions, whilst with us it would make 130.

Mons. de Bast told me, that they frequently buy their cotton at Liverpool, in order to have a better



choice. He complained bitterly of being unable hitherto to obtain a foreign market for their cotton-twist, but he relied confidently on doing so when their new machinery was completed, which, he expects, will give an immense impulse to their trade. He believes that our corn-laws will continually operate in increasing the facility, and encouraging the progress, of foreign manufactures. All the Continental manufacturers I met spoke most joyously of the exceedingly small chance the English manufacturers have of getting the corn-laws repealed. They speak of the landed interest in England in terms of great affection.

Flax forms one of the main sources of Belgian industry. The two Flanders produce alone, the value of 30,000,000 to 40,000,000 fr. per annum. The damasks of Courtrai, and many other towns, are too widely celebrated to require mention. Of common linen cloth, 750,000 pieces, value about 100,000,000 fr., were sold in 1836 in the different market towns in Belgium.

The spinning of flax by power is engaging the active attention of the Belgian capitalists, as well as of other nations. Mr Cockerill, the iron king of Liege, and who engages in nearly every department of industry in existence, has already a very prosperous flax spinning-mill at Liege, of which the engine is of 90 horse-power. Two more are building at Gand. We have not the same advantages for the purchase of the raw material as



we enjoy in the cotton trade. Not only do France and Belgium produce the finest flax within sight of their rising mills, but the river Lys is invaluable for its bleaching qualities. The flax industry, first and last, employs 400,000 persons in Belgium.

Next to the linen, the cloth trade is the most lucrative of the textile manufactures of Belgium.

A capital of at least 80,000,000 is embarked in this branch ; and about 14,000,000 are yearly expended in the purchase of foreign wool ; the indigenous wool barely reaching a figure of 200,000 francs.

Verviers is the seat of the plain cloth manufacture, in which Mr Cockerill is said to be much interested ; and I saw, when there, another new mill, of gigantic dimensions, erecting by this individual.

A report from the Chamber of Commerce at Verviers in 1833, represented the workmen employed there in the cloth manufacture to amount to 40,000 ; the annual production was calculated at 100,000 pieces of cloth, of a value of nearly 25,000,000 fr., or L.1,000,000 Sterling.

In 1812, the trade and population of Verviers amounted to not one-half the present amount. The looms were one-half, but the produce has been tripled.

There is a very large carpet manufacture at Tournai, of 90 looms, where every description of carpeting is made. I was not able to get a sight

of it, but I learnt the wages average 3 fr. per day for the good weavers, and 2 fr. 25 cent. for the second class. Seven-eighths of the whole produce are exported. The total length of carpeting produced annually averages 120,000 metres, or about 1,573,333 yards.

Mr Smith of Manchester recently gave the following correct account of the extraordinary cheapness of the Saxon hosiery, which I have been at some pains to verify :—

“ Saxony already manufactured as large an amount of cotton hosiery as Great Britain ; and she exported 1,500,000 dozen pairs, while our export was only 430,000 pairs. Saxony exported to the United States about as much cotton hosiery as we exported to the whole world ; and she not only exported to other foreign countries, but also to Great Britain. He held in his hand a beautiful specimen of Saxon-made cotton hosiery (a white cotton open-worked glove for ladies’ wear), such as he understood could not be made in this country ; and for these gloves a hosier in Manchester gave 3s. 6d. per dozen pairs. He exhibited another beautiful specimen of hosiery, a stocking of foreign manufacture, with one of similar quality, but English manufacture. The latter, a hosier at Nottingham told him, was there worth 6s. a dozen pairs ; the price of the Saxon article at Hamburgh was 3s. 2d. per dozen pairs. He next shewed other beautiful specimens of stockings of a better quality, both Saxon and English manufacture ; the price of the latter at Nottingham being 23s. a dozen, and of the former at Hamburgh 12s. 4½d. a dozen. With such facts as these before them, would any gentleman say that foreign competition was a farce ? What ought we to say of the corn-laws, when the Saxons could make articles

at this amazingly low rate, and yet buy their yarn in the same market as the Nottingham manufacturers ? The yarn from which these Saxon articles were made was spun in England, and sent out to Hamburgh, and thence to Saxony ; so that, in going out and returning manufactured to England, there was a carriage incurred for 700 miles, and yet they could undersell us on the very spot where the yarn was spun."

England is, however, far from being the only country which suffers from Saxon competition. I extract the following lamentation from a memorial very lately addressed to the Belgian government on the same subject :—

" Cinq ou six des principaux fabricants du *Hainaut* on fait faillite depuis 2 à 3 ans ; et ceux de notre arrondissement, nous disent nettement que si le gouvernement ne vient à leur secours par des mesures protectrices ils fermeront leurs ateliers pour se livrer au commerce de la bonneterie étrangère. Ils indiquent comme cause principale du malaise qu'ils éprouvent, les importations de Saxe, contre laquelle ils ne peuvent soutenir la concurrence."

## CHAPTER XVIII.

## TURKEY-RED DYE.

Cause of our inferiority—Prices abroad—Letter from  
Elberfeld, &c.

I endeavoured to penetrate the mystery which appears to shroud the cause of our inferiority, in spite of all our efforts, in the production of turkey-red dye. The result was a conviction that there is no secret at all. It appears that we buy the drugs, the madder, the aligari, the gall, &c., generally in the same market with the Swiss; that we procure Swiss dyers, Mr Bam Gardner, and sundry others, to instruct us and superintend the operation, but, nevertheless, we are beaten, and our colours will not “stand” like theirs; neither is the hue so brilliant. It strikes me that both air and water are against us, and that the mystery is much the same as that which renders ale brewed at Burton very different to the ale brewed at Edinburgh, and which would still be different were the self same ingredients used at each place.

There is a good deal of dyeing done in Austria.

The most beautiful hue of the dyes, in which the Continent excels us, are dyed at *Trieste*. I beg to call attention to the fact, that though, of course, the exact same materials are used, and the same process followed in other parts of Austria, yet the colour of the Trieste dye is so much and so notoriously finer than others, that it fetches a higher price in the market. This is, of course, owing to some peculiarity in the Trieste air or water, or probably both. Another proof that it is no undiscovered secret that accounts for foreign superiority in these dyes, is the fact that the dye even abroad is never so good in winter as in summer.

The ordinary price of dyeing cotton-twist the best colours, is 2 fr. 50 cent., or 2/ per English lb., both in France and Switzerland. As to Elberfeld, the following letter from Mons. Duncklenberg exhibits the relative prices here and there. Many of the Scotch houses send their yarns to Elberfeld to be dyed.

“ T. J. SYMONS, Esq.

“ ELBERFELD, 5th Oct. 1838.

“ In reply to your favour of 28th ult., I beg to state that there is but one quality of the genuine and durable turkey-red, which is dyed with madder, and my price for dyeing it in the best colour would be, for mule-twist, 15 silbergroschen, or 1/6 per English lb. ; for water-twist, 14½ silbergroschen, or 1/5½ per English lb.

“On sending a parcel of cotton-twist from England or Scotland to be dyed here, the other charges would be as follows, the twist being shipt in Hull for Rotterdam :—

“Freight from Hull to Rotterdam, all charges in and from Rotterdam to Elberfeld, packing here, sent back to Rotterdam, and shipt there, including the packing expenses in leaden chests, together  $4\frac{1}{2}$ d. per English lb.

“Now, taking the price of 40 mule-twist, extra best sewed quality, in Manchester, at  $1/1$  ; and for  $1\frac{1}{2}$ ⁰⁰/ commission in Manchester, packing expenses, freight to Hull and shipping there, insurance from Hull to Rotterdam  $\frac{3}{4}$ d., charge for dyeing  $1/6$ , all other charges  $4\frac{1}{2}$ d. ; a 40 mule-twist would come to  $3/0\frac{1}{4}$ , to which only the freight and insurance from Rotterdam to England were to be added.

“As I mentioned to you, I have been induced by English houses to adopt the mode of packing my red yarns for the East Indies in chests of lead, and then in chests of wood, which makes a charge of about  $1\frac{1}{2}$ d. per lb. English ; whereas each chest, containing 42 bundles of dyed yarns, contains 110–115 English lb. of lead. Thus, if the packing in leaden chests should not be required, the before-mentioned general charge would but come to 3d. instead of  $4\frac{1}{2}$ d.

“In each chest there are packed 42 bundles of dyed yarns ; each bundle contains 10 original English lb., but, by the proceedings of dyeing, the weight

of such a bundle has increased to about 11 lb., thus the buyer has an advantage of about 10% in the weight.

“My conditions for payment, on receiving yarns to be dyed, are 3 months’ draft on London, on sending off the yarns.

“Generally I have some stock of dyed yarns in 40 to 50 mule, and should be able to execute an order in these or other numbers.

“The amount of wages earned, on an average, by our workmen in the dye-works, is four Prussian dollars a-week; their working hours are from 5 in the morning till 8 at night.

“I shall feel happy if you can procure me some orders, and remain, Sir, very truly yours,

T. C. DUNCKLENBERG.”

A young man was sent from a large establishment at Copenhagen to spend two or three years at Ebberfield, Mullhouse, &c. expressly to perfect himself in that art of dyeing Turkey Red. Since his return, he has been placed at the head of the dye works at Copenhagen, but has utterly failed in producing a dye of the same durability as those of Prussia and France. He says he is convinced the superiority of the latter dyes is entirely dependent on the peculiarity of the water and climate.

## CHAPTER XIX.

TWO LETTERS ON ECONOMY OF BRITISH  
COTTON-MILLS.

Any attempt of mine to enter at large on the state of English manufactures, except for the purpose of illustrating the differences which I have exhibited as existing abroad, would be manifestly superfluous, after the very able works by Mr Baines, Dr Ure, Mr Babbage, Mr MacCulloch, and many others.

I cannot resist the temptation, however, of inserting the following excellent letters on some of the points, which will best illustrate the comparative economy of cotton-mills here and abroad.

The first is from one of the largest cotton-spinners in Glasgow ; the second from a very large one in Cheshire.

“J. C. SYMONS, Esq.

“*21st August 1838.*

Dear Sir,—From the conversation I had with you at Helensburgh, I think the enclosed rough statements are what you required from me—if not,



I shall give you any further explanation you may wish. The profits I have assumed, as you must be well aware, will entirely depend upon the general management of the factories, as well as the outlets the manufacturer has for the produce of his mill. Were I to take the actual state of profits on the greater part of the mills in Glasgow at the present time, I should say that they are less than I have assumed; but did I go back two years ago, they would be much higher, especially in spinning. I should say that, in 1835-6, the profits of spinners of the description of yarns I have referred to, would be at least three times what I have assumed; while power-loom weaving could not be taken on an average of much more than half more than I have stated. For five years previous to the crisis of last year, I should say that the profits of spinners, on an average, would be nearly double what I have assumed, but not perhaps more than one-third additional, on an average, to power-loom weavers. Previous to 1836, Messrs ————— may be said to have been only power-loom manufacturers, and for the eight years preceding that date, their profits very far exceeded what I have stated; but I should say they are an exception to the general run of manufacturers of power-loom cloths in Glasgow, inasmuch that they have always been in the habit of sending their goods to foreign markets, and often producing a variety of fabrics not commonly made in power-looms. But I may say

again, that, for two years past, with the advantage of spinning a very great part of their own yarn, such has been the unfavourable state of many of our foreign markets, that they have, as mere manufacturers, no more than interest for their capital ; and I have occasion to know, that the result of several establishments, possessing capitals to a large amount, and many advantages, are in the same position. Those manufacturers, however, who conducted their affairs cautiously, and sold all the produce of their works at home, may be in *rather* a better position. Were it not for the disturbed state of Chili and Peru, and the obstructions to trade to Mexico, we might look forward to a good foreign trade during this and next year, especially as the U. States of America must soon require her usual supplies from us, and the prospect of an increase in our exports to the East Indies, without any great chance of a falling off in exports to the European markets, on account of the lower rates at which yarns and cloths can now be purchased both here and in Lancashire.

“ Any communications I have given to you, I wish you to consider *as confidential*. I have to apologize for not sending you my statements earlier, but the fact is, that I had them ready for you a few days after I saw you, and I intended to take them down with me to Helensburgh last week, but left them behind me. I trust they are still in good time, and may be of some use to you.—I am respectfully, your obedient servant.

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“ Expense of erecting a power-loom factory of 500 looms, calculated to weave a good fabric of calico or shirting, such as is generally made in Glasgow, would be about L.18,000.

“ Annual produce, say* 150,000 pieces of 24 yards at 6/,	. . . . .	L.45,000
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Which cost as under :—

Interest on sunk capital, and for depreciation of value of the machinery,	. . . . .	L.1800
Steam-power, oil, tallow, &c., keeping up machinery, utensils, &c.	. . . . .	2000
Yarns and flax,	. . . . .	32,000
Wages to workmen,	. . . . .	7500
Suppose profit,	. . . . .	1700
	—	<u>L.45,000</u>

“ In this statement, I have supposed the manufacturer purchases his yarn in the market. In Glasgow, there are a great many factories so carried on ; but in Lancashire there are very few so conducted, it being almost universal for the manufacturer of the cloth to spin his own yarn.

“ After a spinning or weaving factory has been wrought for a few years, if brought to the market for sale, the price to be got is generally 20 or 30 per cent. less than cost ; and, if forced upon the market in a time of dull trade, even little more than half the cost sometimes can be got.

When trade is good, if a *new* going mill, either spinning or weaving, happen to come into the market for sale, it is very seldom that first cost can be got for it, though, perhaps, nothing worse for any tear and wear, and in every respect fitted up with the most approved machinery.

“ Probable expense of erecting a spinning cotton-mill, with hand-mules, calculated to produce No. 40 of a fair average quality, would be L.23,000. If patent self-actors, L.2000 additional.

“ The produce annually, taking the present prices of cotton, and the rates at which the yarns could be sold, would be about . . . L.25,000

“ Cost of which as follows :

Interest of sunk capital, and allowance for depreciation of value of the machinery,—	
say 10 ⁰ / ₀ , . . . . .	L.2300
Cotton, . . . . .	14,000
Steam-power, oil, tallow, gas, and general expense of keeping up utensils and machinery in repair, . . .	1800
Wages to workers, . . . . .	5400
Profit, suppose . . . . .	1500
	<u>— L 25,000</u>

“ The produce of the mill I have taken at 10,000 lb. weekly.

“ Cost of a cotton spinning-mill of 10,000 throstles, calculated to produce a fair quality of No. 24, would be about L.20,000.

“ Taking present value of produce, the amount annually would be . . . . . L.23,000

“ Costing as under :

Interest on sunk capital, and for depreciation of value of machinery, say 10% ₀ ,	L.2000
Cotton, . . . . .	13,300
Steam-power, tallow, oil, gas, keeping machinery in repair, &c. . . . .	2500
Wages to Workers, . . . . .	3800
Assume profit, . . . . .	1400
	<u>L.23,000</u>

“ The power required in throstle-spinning is much more per spindle than in mule ; for the former, it is generally allowed that a horse-power will not drive (with preparation) more than 120 to 140 spindles, while the same power will drive of the latter 350 to 500 spindles, according to the grist of the yarn. I have assumed the produce of the mill at 10,000 lb. weekly, or 24 hanks each spindle.”

At the New Lanark mills, there are 23,000 twist-spindles, and 19,000 mule-spindles. The machinery is very good, and the work people fully of average skill and industry, and they consume 185,000 lb. weight of raw cotton per month, spinning from Nos. 9 to 40, the average being No. 23.

*“ Dukinfield, Dec. 19. 1838.*

“ MY DEAR SIR,—I am extremely happy to find, by your letter of the 11th, that you are once more happily arrived in your own country. To that letter I must make an apology, for not returning you an earlier answer ; but I am sure you will excuse me, when I inform you, that, when it arrived, Mr C——— was coming down to make some further inquiries relative to the subject on which he is engaged, and that I have been almost entirely absent from home, engaged with him ; and, now that I am sitting down to reply to you, I find very great difficulty in giving you the desired information. Quantities and prices depend so almost entirely on the particular nature of the manufacture, the quality of the work intended to be produced, and the disposition and arrangement of the machinery, all of which differ in different mills, that it is almost impossible to form a direct comparison. For example, you wish to know ‘ the number of women employed, under the recent improvements in the drawing frame and carding machines, for a given quantity of cotton-twist,’ &c. Now this will entirely depend on the arrangement and the quality brought out. For instance, in some mills the drawing frames will be placed all together, and the women will only have to attend to drawing ; in others, on the contrary, the drawing frames will be combined with other frames in one system, and the women attend to both. In the same way, the

quantity from a given number of cards will have to be reduced to a finer fillet than that from another; in which case, the quantity passed through two sets of cards will be very different, the labour remaining the same. For instance, we, in our own mill, have two sets of 10 cards each, each set tended by two women, who do both the drawing and the subsequent operation called slubbing, one set of which produce about 24 lb. per card, or 240 lb. a-day; and the other only about 18 lb. per card for the same money, or 180 lb. a-day. The only satisfactory mode, as it appears to me, for forming an accurate estimate and comparison, is to take the whole quantity produced in a given department of a mill, and divide it by the whole wages paid for it. Thus, to give you some datum, the whole quantity produced in our own card-room in the last eight weeks has been 33,698 lb., for which we have paid L.160, 12s. or about  $1\frac{1}{8}$ d. per lb. for the carding and roving. For the spinning in the same time, we paid, for 32,750 lb., L.175 : 13 : 8, or about  $1\frac{1}{5}$ d. per lb.; so that, to bring the raw material into yarn, it costs us, in *wages*, rather more than  $2\frac{1}{4}$ d., exclusive, of course, of wages for clerks, warehousemen, &c. The numbers spun, average about 36 to 37 hanks to the pound. As our mill is old and not well arranged, this will probably be a *maximum*. If, therefore, you know what sum must be paid in the foreign mills for a given quantity of cotton twined into 37 yarn, you will have a



better idea of the comparative cost of production, than by knowing the number of workmen employed on each machine, though that also is undoubtedly very variable. Again, with respect to the quantity per spindle, that will vary considerably according to the quality of yarn, and the kind and excellence of the machine. In 40 in. *twist*, you may take the *minimum* at about 17 hanks per spindle per week; the *maximum* at about 19 to 20 hanks; in 40 weft, from 2 to 3 hanks higher. With respect to the wages of *classes* of workmen, we pay, in the card-rooms in the neighbourhood, for

Young persons from 4/ to 5/ a-week.

Young women, 8/ to 10/ ...

Young men, 10/ to 15/ ...

Other work people are paid mostly by the piece or quantity done.

“ I am very sensible that this is but scanty information, but I should only write you a long vague letter, which would not be of much value to you, unless I knew the precise points on which you want information. * * * * *

“ I do not know that I have any notes of much value as to foreign competition, having been very little, during my late tour, in the manufacturing districts. I am fully satisfied, however, from all I did hear and see, that they are making on the Continent great progression, the effect of which will be seen in a few years. Your observation about the comparison of the skilled and unskilled,



or the combined and uncombined trades, I think is probably correct. The effect of combination in England has clearly been to keep up to an undue height the wages of certain trades, and to depress unduly those of others. We want, and must have, freedom of labour. Yours truly."

" To J. C. Symons, Esq."

## CHAPTER XX.

SUMMARY GLANCE AT THE MANUFACTURES OF  
THREE COUNTRIES, AND THEIR RELATIVE PRO-  
SPERITY.

## FRANCE—BELGIUM—SWITZERLAND.

France exported, of manufactured goods,

In 1825 the value of 376,906,000 francs.

1827	...	307,558,000	...
1829	...	332,260,000	...
1836	...	422,973,534	...

I have been unable to ascertain the exports of last year, but I have good ground for believing them to have been as little as those of 1829. Of course, the exports of 1836 form no standard for any country, having been a year of over-production everywhere.

Nevertheless, were her commerce emancipated from the swaddling clothes of her protective tariff, I am persuaded France would prove a formidable opponent to us in more respects than her silk trade.

Whenever coal is allowed by the Government to be imported free of duty, and whenever the interests of the nation are considered more important

than those of a very small junta of French iron-mine monopolists, an incubus will be removed from the Norman cotton-mills, which, advantageously placed as Normandy is both for the import of the raw material and the export of her manufactures by Havre, will not fail to give her such an ascendancy over our high-waged produce, even in cotton manufactures, as will make us heartily repent the hour when France has wisdom enough to throw off the fetters of her "protective duties."

There scarcely exist any combinations in France induced by artificial scarcity of food and employment, as in England, to exclude whole classes from the free competition of labour. It follows, that all the inferior and less skilled occupations are left to women and children, or to very old men, or at most as a fill-gap, if I may so express it, in the evenings, or during bad weather, for out-door labourers. There is, generally speaking, sufficient manly occupation to be had; and, consequently, men are not reduced to the necessity of having recourse to trades which require children's skill and strength, nor are they remunerated with children's wages.

Nevertheless, although the superficial territory is out of all comparison larger, in proportion to the population, in France than in Switzerland, the people in France are very far from enjoying the same amount of comfort as the Swiss. There must be at least two-thirds more commodities, consequently more remuneration for labour in proportion to po-

pulation in Switzerland. I had long and highly interesting discussions with Mons. Mimerel, the President of the Chamber of Commerce at Roubaix, and Mons. Delesalle, of that of Lille, to both of whom I was introduced by the Prefet ; and we conversed on the whole subject of restrictive duties. Both these gentlemen are highly esteemed by the Government, and both belong to the old school of Political Economists, and are stout advocates of a protecting duty on our flax-yarn. I combated this point with them at great length ; and I am persuaded, from various remarks that fell from both, that juster views, and a more enlightened policy, are not far distant from their ascendancy in France.

Whenever France emancipates her manufactures from their fetters, if we have not previously modified our corn-laws, she will deal a heavy blow at us. As it is, she has confined herself too much within Bishop Berkeley's wall of brass, to be mischievous outside. As a proof that, though darkness is still devoutly desired, light on this matter is no longer to be excluded, I beg to extract a passage from an elaborate and masterly article published in a late number of the *Revue des deux Mondes*, entitled *Commerce Decennal*.

“ To the exposition (1834) succeeded inquiry. There the same manufacturers, who had claimed reward for their progress, came and confessed their inability to compete with the foreigner, and found no other remedy to this mortifying state of things,

but in the continuation of almost complete prohibitions. The Government could not contend against a desire so generally partaken in by men of every different political opinion, and the French manufacturers have quietly slumbered, contented with the secured consumption of 34,000,000 of inhabitants. Our industry experienced no alarm at seeing pass over our territory, in 1836, 332,000,000 of fr. value of foreign merchandize introduced for transit or exportation. What are the causes which prevented us from furnishing them? What causes this preference to Switzerland, Prussia, &c.? What put these countries in a state to excel us? Nobody knows. Nevertheless, we have more need of people to warn us than to praise us. We remain behind in the progress made by other nations; and if we perceive that, after having bought flax of us, they come and sell us linen, we know of no other remedy but to ask to have the linen prohibited, instead of trying to make it as cheap. It is immaterial to the claimants whether France goes with shirts or not, so long as they monopolize a market which they are incompetent to supply."

These opinions are gaining ground, and as changes in France are not of particularly slow gestation, I believe her commerce will be emancipated ere very long. Belgium possesses elements of commercial prosperity, which cannot fail to render her ere long a very formidable competitor with Great Britain. Her soil is alike rich, inwardly and outwardly—her

crops and mines rival each other in the quality and abundance of their produce. The flatness of the country and the excellence of her harbours secure her the cheapest possible carriage. Her Legislature, though neither quite wise nor powerful enough to give her entire freedom of trade, has at any rate emancipated her industry from one-half the "protective" injuries which cripple France. She is neither cursed with dear bread nor heavy taxation, and her people are eminent for the endurance of toil, and are both industrious and persevering. These are powerful and certain elements of commercial prowess. It is true that Belgium has of late been, in her speculations and industrial enterprises, carrying rather too much sail; but the ease with which she seems to weather a recent squal, and the elasticity with which she recovered and righted herself, are the best practical proofs that there is substantial and solid strength in her frame-work.

The following is a table of the chief countries, and value of linen goods exported thereto from Belgium in 1835.

An augmentation of about 20 per cent. has since taken place.

France, . . .	27,441,330 francs.
Holland, . . .	707,525 ...
Prussia, . . .	158,634 ...
Hanscatic Towns,	829,024 ...
	<hr/>
Carry forward,	29,136,513 ...

Brought forward,	29,136,513 francs.	
Germany, . . .	174,055	...
England, . . .	115,010	...
Tuscany, . . .	245	...
Algiers, . . .	5,005	...
United States, . .	18,396	...
Cuba, . . .	320,446	...
Brazils, . . .	19,355	...
South America, . .	2,240	...
<hr/>		
Total,	29,791,265	...

It appears to me, that Switzerland presents the only perfect specimen of prosperity of any nation in the world,—one which we cannot too deeply study.

I attach great weight to the frugal habits and to the moral restraint of the Swiss people as causes of their signal welfare. I attribute their diligence and skill to their virtue and to their intelligence. I attribute the benefit of their almost stationary population to the force of reason and foresight which induce it; and of none of these several elements of popular welfare do I deny the power. But when I look to the small quantity of grain Switzerland produces,—one-third only of the proportion of grain to population in Great Britain;—when I see her untoward position for the carriage of her imports and exports;—I am compelled to look further for the sources of eminent prosperity, where all physical circumstances seem calculated to produce peculiar poverty. Her soil even refuses to furnish, with trivial exceptions, the material of any one of

the productions in which she chiefly excels ; and yet, hemmed in as she is by a cordon of custom-houses, these productions find their way into the remotest markets of the world.

I assign two causes for this state of things. *First*, Nearly all the consumers in Switzerland are producers ; they have no funded debt,—that is to say, there are no body of persons whom those who labour have to keep, and the amount consumed by whom, being non-producers, is as a dead burden on the industry of the rest. *Secondly*, and this is the most effective cause, I attribute the prosperity of Switzerland to her entire freedom of trade. She exchanges what she can best produce and spare with whatever country has the most of what she wants. Not a single country in return admits her goods free of duty,—not one among the commercial people of the globe reciprocates her absence of customs. But what is that to her ? Does it prevent her buying from whom she will the commodities she desires, and enjoying those commodities when she has them at the cost price, instead of augmenting them to her domestic consumers by a duty ? And if foreign countries, who must be repaid in Swiss goods, choose to refuse to give themselves and their consumers a similar benefit, or if they choose, by heavy duties, to put difficulties in the way of their own merchants being paid, what, I repeat, is that to Switzerland ?

As for protecting duties, the Swiss people believe



that if a trade cannot support itself without a protecting duty, that is sufficient proof that the trade is not suited to the capacities of the country,—the proof being that the articles in question can be produced for less money elsewhere. This is taken as sufficient evidence that it is injurious to the country to continue, or to protect, any such trade ; *first*, because consumers in Switzerland must lose the difference between the low price of the foreign article and the higher price of the home article ; and, *secondly*, because the trade in articles, which Switzerland can produce, is injured to a greater extent than the other is benefited, by preventing the far greater sale of its produce to the foreigners who produce the goods excluded. The produce which is capable of being sold in other countries is the most profitable to the producing country ; and, so far from protecting others which cannot be exported, it is the interest of a community to discontinue it. The fact that a trade wants protection, is an amply sufficient reason why it should not be protected.

These principles are fully appreciated and acted on by Switzerland, a country beset with disadvantages, and yet eminently prosperous. This is a problem which the opponents of free trade are bound to solve.

Switzerland is deficient in statistics, and it is owing to the absence of custom-houses that it is not possible to ascertain her exports and imports,

except so vaguely that I decline making any statement on the subject.

In woven goods, all countries hitherto exporting, have experienced a stagnation, many, like England, a decided decline. There is reason to think Switzerland has not increased her exports of *cotton goods* since the American crisis ; but it is believed that one or two fresh markets will be shortly opened to her,—at any rate she has suffered no depression.

My attention having been called to the transit dues imposed by foreign nations on goods passed through their dominions, I took several opportunities of inquiring into their character ; especially of M. Tscharner, the Avoyer of Berne, M. Zelweguer, &c. I find that, so far from there being the slightest chance of foreign countries raising the price of transit dues, they constantly compete with each other to secure the advantage to themselves ; by rendering the dues as small, instead of as high, as possible. Seeing that Switzerland can send her goods through any country she chooses, of course the effect of one of them raising these dues would be to throw the benefit exclusively, or nearly so, into the hands of others. The Duchy of Baden has expended large sums on its roads purposely to facilitate and encourage the transit of Swiss goods through Baden, and prevent, as much as possible, transit through France or Wurtemberg. Any apprehension on this score exists merely among the opponents of free trade in England ; the Swiss do not entertain it.

The Swiss system of commerce and industry may be thus summed up, in its effects, on the production, and on the division, of wealth :—

1. Free trade and industrious habits augment the amount of commodities on the one hand, whilst we have prudence limiting the population, and diminishing consumption, on the other.

2. Just laws, no debt, no sinecures, no entails; the absence of these reduce the number of the non-productive classes, and consequently leave larger shares for those who do produce.

These are the roots of Swiss prosperity.

I have only to add, that, as there is less pressure for food, there are no artificial means resorted to by workmen to secure it. It is this which causes, in England, combinations among those who can combine to raise their wages, to the impoverishment of those who cannot. There are no combinations on the Continent; and consequently there is more equality among the shares of labourers.

Switzerland is, however, peculiarly blessed in the enjoyment of the two great national blessings—FREEDOM of TRADE and FREEDOM of LABOUR.

The general conclusions I deduced from my inquiry were these :—

1. That there are few hand-loom weavers abroad, such as the suffering class so designated here.

2. That hand-loom weaving exists as a separate trade only in the fancy or artistical departments; wherein the rate of labour is the same as in other

skilled trades, with a slight reduction, owing to the pleasantness of the occupation.

3. That plain weaving exists abroad almost exclusively as an occupation for weak persons, and during the intervals of other employment.

4. That the condition of hand-loom weavers abroad is that of other classes of workmen, with which they are for the most part identified.

5. That there is a marked equality of wages in all departments of labour in the same country abroad ; each affected alone as to the rate of wages by natural causes, varying with the variations of demand and supply of skill required, &c.

6. That this equality of wages results from the almost total absence of combinations among workmen, in certain trades, to limit supply of labour and monopolize employment.

7. That capital, and therefore employment, depend, first, on territorial productiveness ; secondly, on skill and industry ; and thirdly, on the degree of freedom with which a country can supply deficiency in the first of these elements of wealth, by exchanging that which she can easiest produce and spare, with that which she can least produce and most wants.

8. That Switzerland is an eminent example of the truth of this theory, seeing that her soil cannot produce sustenance for half her population, and that yet her people are better fed, clothed, and educated than any other people in Europe.

9. That France, whose soil can well support her populace, is backward in all that marks the progress of prosperity, and her people neither well clothed, well fed, nor well educated.

10. Nevertheless, that Switzerland does not possess any of the natural advantages of France for international commerce, but Switzerland is without customs, and France is, on the contrary, loaded with them.

11. That the cause of this difference can alone be the freedom of Switzerland from restrictions on, improperly called "protections" to, commerce, whilst France is overloaded with them.

12. That this country is afflicted with the same incubus which depresses France, especially with regard to the restrictions on food, which, whilst they decrease the amount of sustenance to the labourer, diminish the increase of capital, and, consequently, the fund for the employment of labour.

13. That Prussia and other countries are being compelled to manufacture for themselves, and are rapidly driving us out of third markets as well as out of their own, because we are unable to take what they have to give, and what we most want, in exchange for our manufactures.

14. That, unless we abolish our corn-laws, it is physically impossible for us to continue to employ or to feed an increasing population.

## CHAPTER XXI.

## THE REPEAL OF THE CORN-LAWS.

Their evil effects : statement of a foreign manufacturer regarding them : the effects of repeal here and abroad on wages and profits, and comments on prevalent errors respecting it.

The grounds on which the corn-laws may be justly denounced as among the most iniquitous enactments of our statute-book, are those on which all restrictions on trade are condemnable, and which I have partly detailed in the 7th chapter, on Wages.

In the course of a very interesting and instructive conversation with Mr Kennedy, who is one of the most intelligent men I met with abroad, I asked him what he thought of a repeal of the corn-laws in England : his answer was, “ *As a foreign manufacturer, I should be exceedingly sorry to hear of any thing of the sort.*” He added afterwards, that, were any circumstances to reduce the price of English goods, Austrian spinners would, most probably, give up their manufactories. If no higher protecting duties could be obtained, the rate of their profits must sink ; and that, if they sank only

by 2 or 3 per cent., they would prefer other investment of their capital, as they would not be content with the same rate of interest as in England.

The effect of a total abolition of corn-laws has been grossly miscomprehended. In the first place, the price of corn would scarcely fall on the average so low as 40/ per quarter. This is supposing the cost of freight included, which would not on the average be less than 6/ per quarter. Unless we could get a good deal of corn from Spain, which I apprehend we might, it would not be so low. The effect nevertheless would be, that a good deal of wheat land here would be laid down in pasture, and a proportionate amount of foreign wheat imported. To pay for the foreign wheat, a considerable demand for foreign manufactures must arise, which, as I have already shewn, must raise wages in the manufacturing districts. Some of the manufacturers imagine that this would be a loss to them. On the contrary, their profits would necessarily rise, through the same cause which makes wages rise, viz. increased demand. I assert this in flat contradiction to the pernicious error that profits and wages are antagonist.

It is thought that the agricultural labourers will flock in upon the manufacturing districts, and lower wages. To an insignificant amount this may occur, but the increased demand arising for manufactures, will necessarily create an increased demand



for barley and meal, wool, and other agricultural products, to produce which labour is needed. The one, therefore, cannot happen to the same amount as the other. It is said that the foreign manufacturer will be equally able to compete with us in manufactures. This can hardly be, for how is the extra foreign corn to be produced? while the constant preference of agricultural to factory labour abroad will cause a rush from the latter to the former: this the manufacturer can alone avert by a rise of wages, without, be it marked, as in England, an equivalent rise of profits; but, on the contrary, a positive diminution of them, seeing that extra British manufactures have been introduced into his own markets.

The outcry of the agriculturists, that they would be injured by the repeal of the corn-laws, thereby inducing a much greater demand for the produce of grass land, has been felicitously answered by the Duke of Buckingham himself, in his place in the House of Lords, who has shewn the much greater profitableness of pasture, were not the farmers prevented from laying down more land, chiefly by the fear of increasing the poor-rates, by means of that excess of labourers, of which the repeal of the corn-laws and the increase of manufactures would relieve them. The value of land would, however, be increased in other ways.

Independently of the fertility of the soil, the Belgian landowners reap large profits from the



collateral effects of manufacturing prosperity. This must of course happen wherever new impulses to commerce induce those improvements, buildings, &c., which are among the main causes of *value to land*.

Monsieur Henschling, first clerk to the Minister of Finances, in a work he has lately edited on Belgian resources, says, “ We ought not to forget to mention the *enormous elevation* which the industrial development, the construction of roads, of rail-roads, of canals, &c., has produced in the value of lands and buildings ; there are entire *arrondissements* where the difference of price, compared with that of 1830, is more than one quarter.”

The landed interest in Belgium, therefore, has been benefited in many districts to the amount of 25 per cent., independently of any agricultural operation, but purely from the increase of manufactures. This is surely an important and instructive fact.

Mr Porter, in his able pamphlet on this subject, has clearly demonstrated, that the existing law has signally failed to produce that equality of price which was its chief recommendation ; whilst the distress of the agricultural body under its operation, has repeatedly occupied the attention of Parliament.

The fallacies put forth on this subject generally suppose a stagnant population. Because a certain

extent of ground has hitherto very nearly sufficed to maintain the existing population, it is coolly assumed that it will suffice for ever. The population, however, in spite of the corn-laws theory, happens to increase at the rate of 900 or 1000 per day, and great as has hitherto been the progress of agricultural improvement, it will prove perfectly inefficient to keep pace henceforth with the increase of mouths. The cultivation of inferior soils has been held forth as an advantage to the labourer, because inferior soils require the most labour ! If the wealth of a country depended on labour instead of on the produce of labour, this sapient remark would certainly be an unanswerable reason for corn-laws ; as however things are constituted, and effects follow causes, I quote it merely as a notable instance of the excess of ignorance which has been enlisted in the advocacy of the bread-tax.

I believe it was Mrs Loudon who prettily illustrated the comparative productiveness of corn-growing and cotton or cloth weaving, by taking a half acre of ground, capable, with a given amount of labour, of producing a dozen bushels of wheat ; but which, by erecting a factory on it, the same proportion of labour and the same proportion of capital expended, would produce fifteen bushels by the exchange of the factory produce for foreign wheat. This correct view of the case has been met by the remark, that agricultural occupation is far more conducive to the happiness and morality of the la-

bouring classes than factory labour, and that we should effect but little improvement by rendering England the work-shop of the world. The evil contemplated I am very far from desiring to gain-say ; but I entirely deny the possibility of any such necessity arising through the repeal of the corn-laws. In the first place, the evil of factory-labour consists exclusively in the long duration of work, which the corn-laws necessitate, by the diminished profits of manufacture, and which compel the capitalist to increase the produce of his machinery so as to counterbalance the decay of the market. I do not mean, however, to deny, that a state of things may be induced such as very materially to increase our manufactures and diminish agricultural occupation ; but whenever this occurs, it will be the effect, not of corn-law repeal, but of the growth of population, to such an extent as will leave the alternative either of starving or employing our energies in the most productive channels. This pressure has already set in ; and the landlords will ultimately be just as little able to stay its power, as to stay the tide. If we desire to remain both pastoral and prosperous, we must cease to “increase and multiply.” Other means there are none.

The decay of our external commerce has been controverted by Sir Robert Peel, by means of the ingenious expedient of picking out a particularly low year, and comparing it with a succeeding year of reaction. The following are the facts :—

Our exports amounted

In 1835 and 1836 to L.87,749,000.

In 1837 and 1838 to L.79,566,000.

This decline in our export trade has taken place whilst population has increased by about 600,000 souls !

On the effects of the repeal of the corn-laws on wages I have already spoken. I have shewn how impossible it is for commodities, or the fund out of which wages are paid, to be increased without an immediate proportionate increase of wages ; the number of labourers remaining the same.

Neither does it appear that this dependency of the rate of wages on the proportion between the demand for and supply of labour, is altered by the class of commodity produced. In the first place, the fact that the value of wages depends on the quantity and quality of the commodities for which they are exchangeable, is one quite as well known to the employers of labour as to political economists ; and the reason why wages are not reduced in proportion to the increased plentifulness or cheapness of the commodities used by labourers is, because the demand for labour is too great in proportion to the supply, to allow the employer to take advantage of that circumstance. Therefore, supposing that increased production were confined exclusively to articles used by labourers, the labourer would possess no more of those articles, because there were more of them ; but because the increased

necessity for his labour, forced his employer to increase his means of purchasing them. Exactly the same result and the same benefit would ensue to the labourers, whether a new market were opened to this country for fustians or for book-muslins. The manufacturer and the labourer would divide between them the proceeds of the new trade, in the exact proportion in which the supply of labour had been plentiful or scarce ; on which circumstance, and on which alone, would the increase to the fund for the maintenance of labour depend. The weaver of fustians would buy more fustians, not because more were made ; but because he had more money to buy them with. If the additional demand had been for book-muslins, the weaver of muslins would also buy more fustians. The higher wages in both cases would be caused, but not the effect of an increased quantity of labourer's commodities.

If the muslins were exported, goods such as there was the most demand for would be imported in return. As the consumption of the weavers of muslins would create an additional demand for those articles which they consume, to that extent would such articles be taken in return ; or, what amounts to the same thing, such as were most exchangeable for them.

Thus may be demonstrated the utter falsity of many of the nostrums put forth to the working classes as remedies for their distresses. If the work-

ing classes of this country had unlimited power in their own hands to-morrow, the sole and only way in which they could better their condition, would be by increasing the commodities in the country ; aided in a degree, *utterly insignificant in comparison*, by compelling idle consumers to become producers. The most absurd, and yet the most prevalent, of the errors among the working classes, is that of supposing that the whole amount of the taxes, and the wealth of individuals, is so much kept away from them. The amount kept away from them of the wealth which annuitants and millionaires possess, is precisely that which they individually consume, or cause to be consumed by their menials and animals, *and not one iota more*. Were it possible (*which it is not*) to disturb the institution of property, without injuring and weakening the organization of production, and to withdraw the said fraction of wealth from its idle consumers, each labouring man might, by the most lavish computation, enjoy about sixpence in the pound more than he at present possesses,—a gain about one-tenth of what may be effected without injury to any one, by simply repealing the corn-laws.

As many of the points asserted in this brief view of the effects of the corn-laws are of course dependent on a train of reasoning necessary to demonstrate their validity, I am induced to trouble the reader with one more Chapter on the Elements of Wealth, and the Laws of Interchange.

## CHAPTER XXII.

IS FREEDOM OF TRADE MOST CONDUCTIVE TO  
WEALTH ?

The question is simply this, Will it most increase the commodities, and therefore the wealth, of a country, to have trade free or restricted ? It seems to any one who has thought on the subject almost self-evident, that perfect freedom of trade is the greatest good : and that, in proportion as you restrict interchange, you diminish the wealth of a community. My position, then, is, that it is the true policy of nations to interchange with perfect freedom what each can *easiest produce and best spare*.

Before I enter on the examination of any of the arguments which have been adduced against my view of the matter, and before I enter on the truths wherewith I hope to refute them, it is necessary that I dispose of, and clear away, a perfectly irrelevant consideration, which has nothing whatever to do with free trade, but with which it has been found peculiarly convenient, by certain sophists, to encumber the matter. I allude to money. Now,



money has nothing whatever to do with interchange, or the laws which govern it, simply because it is a commodity itself, and in all respects subservient to the laws of interchange, instead, as some persons suppose, of governing commercial transactions. Instead of offering demonstration of my own of this fact, I prefer publishing a note which Colonel Peronet Thompson did me the favour to write to me on this subject some time since, when I was studying those principles of which he is one of the ablest exponents, and to whom the cause of free-trade owes as much in this country as to any of its many able and eminent advocates.

*“ 13 Hanover Terrace, Regent’s Park.*

“ Sir,—I should have been most happy to have had the opportunity of seeing you at the time you were so kind as to call with Mr Welford’s note.

“ I have looked over the passage you mention in page 139 of the article on Free-Trade ; and it strikes me that the settling of the difficulty must depend on a careful examination of the facts that take place. If gloves are brought from France, does the Frenchman give them, or Englishman receive them, without payment received or given ? Clearly not. How, then, is the Frenchman paid ? First, he may be paid by the receipt, for his own use, of a certain portion of goods sent from England, as, say Leeds cloth, or, which comes to the same thing, by a portion of the French money, for which



Leeds cloth has been sold in the French markets. Secondly, he may be paid with English sovereigns, or other coin of intrinsic value, out of the pocket of the receiver of the French gloves. Thirdly, he may be paid by Bank of England notes, or bills of other kinds on England, which he receives because he knows they have a value dependent on the fact that English goods can be bought with them in England. If a Bank of England L.10 note will pass for 250 francs, or thereabouts, in the Palais Royal, or any other part of Paris (as there is no doubt it will), it is simply on the contemplated power of exchanging it, or finding somebody who will exchange it for English goods in England, that its being accepted for 250 francs depends. Do away with its validity in England, and it is simply waste paper at Paris.

“ In all these cases, then, the gloves appear to be paid for to the Frenchman, first or last, by English goods ; assuming that, in the case where payment is made with sovereigns or other English coins, these also are English *goods*. And in what do they really differ from goods in general ? The gold in the sovereigns must have been bought in Peru (at least if honestly come by) at the precise market price of gold there ; that is to say, there must have been given for them as many English blankets, bales of broad cloth, or whatever else the Peruvian may have consented to receive, as, according to the state of the markets, was an equivalent. Or, if it

should have happened (which is among possible things) that payment to the Peruvian should have been made in Port wine or Cognac brandy, this wine and brandy must have been bought with English goods, which comes to the same in the end. Without home-made goods to begin with, it is clear we could never have had either gold or any other foreign product. I conclude, therefore, that no foreign goods (gold and silver included) can, by possibility, be had (bating robberies), unless by the exchange of home-made goods at one time or other. It seems to come to the axiom "*Ex nihilo nihil fit.*" If any man can point out a piece of any foreign commodity, gold and silver included, which was not obtained by the exchange of some English product, will he be so good as point out by what means (robbery excluded) it *was* obtained.

"After this, comes another consideration which is very apt to cause confusion with the first: And that is, the fact that any settled Government may, if it pleases, reduce the absolute quantity of metal in its coins, till they brought it to a piece of gold-leaf glued on a slip of paper, or to the paper without the gold-leaf, which is a bank-note; and these substances, so long as the Government does not augment the quantity in circulation, will pass for the same value as ever, and will, moreover (within certain limits), possess a value in foreign countries, as the Bank of England note does at this day in the Palais Royal. And all the present saleable value

of the gold thus spared, the Government may apply to its own use, which, in the case of an honest government, will be the use of the community. But this is altogether a new line of inquiry, and one it is necessary carefully to keep distinct from the other.—I remain, sir, yours very sincerely,

“ PERRONET THOMPSON.”

It is an established principle of monetary science which no one disputes, that, as you increase the proportion of commodities in a country and decrease money, you lower prices ; and for this simple reason, that, as there is less money to pay for goods with, more goods must be given for the same bit of money than were given if there was more money to buy them with. I will put a case. Suppose there were a hundred commodities only, each of equal value in a country, and a hundred pieces of money ; every piece of money would purchase or exchange for one commodity ; but suppose that suddenly one-half of the pieces of money were taken away, it is quite clear that one of each of the fifty pieces of money left would then buy or exchange for two commodities, or commodities could not be sold. Therefore *prices would fall*. Now, this is the whole doctrine of currency.

When the Frenchman brings us goods here, and takes our gold money away, he makes prices fall, because he has increased our commodities and diminished our money. But now let us see what hap-

pens in France. The exact reverse happens in France ; their goods are diminished, and their money is increased ; therefore, whilst in England prices have fallen, in France prices have risen—whilst goods are cheaper here, they are dearer *there*. The consequence is, that France, seeing that she can neither eat, drink, nor wear her money, has a direct interest to purchase commodities with it. And where will she purchase commodities ? why, naturally where they are cheapest, and that we have seen is in England, owing to the very circumstance which makes French goods dear. If France wants to buy of other nations, that makes no earthly difference ; she only transfers the same effect to other countries. In the mean time, seeing that our markets are cheapened, to us some buying nation must necessarily come, for it is as plain a fact as that water finds its level, that those who sell cheapest sell most. And thus the money that went abroad comes back to buy our goods ; and the truth of our position remains true, that we cannot take commodities from foreigners, without their necessarily, in the long run, taking ours in return. But this taking of money never occurs beyond what is necessary to keep the exchange nearly at par ; that is to say, they keep the markets nearly at a balance in point of price ; especially as a very small difference in the value of gold causes it to be profitable to re-export it to where it *is wanted*, seeing that it is the most portable of all commodities. The fluctuations

which occur may be compared to the action of a pendulum ; and thus, in general parlance, the imports of every country balance the exports ; and money has nothing to do with free trade, except to confuse it ; and commodities being the sole wealth of a country, and not money, which merely represents them, *with* commodities we have alone to do. When I say that the exports must balance the imports, I mean as a matter of fact. In the official returns from the Custom-houses, I know they do not ; which is easily accounted for by smuggled commodities, in the first place, and by the gross ignorance as to the real value of goods at the Custom-house in the second.

In the Seventh Chapter, I have already stated the effect produced by the free exchange between nations, of what each can best produce and best spare.

All protecting duties are for the injury of the many—for the good of the few.

Colonel Thompson somewhere illustrates the hardships of the corn-laws on the manufacturer, by putting the converse of the case. Suppose, now, that stockings could not be made nearly so cheap here as abroad, and that wheat, for instance, was cheaper here than abroad. According to the doctrine of protecting duties, the stocking-maker would have a right to go to the farmer, and say to him, I cannot make your stockings any longer under 5/ a-pair : the farmer would, perhaps, be inclined to reply, that he did not intend to give any such price ;—but,

answers the stocking-maker, if you don't, I cannot continue to make stockings. That, says the farmer, is nothing to me, seeing that I can buy my stockings at half a crown a-pair elsewhere, which, if you please, I mean to take the liberty of doing. Upon this, off goes the stocking-maker to Parliament, and proves to a demonstration that he cannot make stockings under 5/,—that stockings are a national blessing, but that that wicked fellow the farmer, if he is not prevented, is going to buy stockings for 2/6;—whereupon a custom-house officer, with soldiers at his back, is set over the farmer, to see that he pays at least 6/ for all stockings he presumes to buy elsewhere than of the national stocking-maker; and thus a remunerating price is certainly preserved for the English stocking-trade;—and, beyond this, the protective theory sees nothing. It passes over, as a matter of no earthly importance, the loss of the half-crown to every wearer of stockings, and the loss of trade to every manufacturer, who, if foreign stockings came in, would sell goods to send out.

The claim of such a manufacturer is, on the very face of it, a claim to be protected in producing what nobody wants him to produce;—nay, more, what every body desires he should not produce, because it can be got cheaper if he does not produce it, and because the same amount of labour he is expending on it would, as we have seen in the case of the silks and cloths, produce, on some other more profitable employment (by means of exchange),

a far larger amount of that very commodity which he persists in making, though without equal capacity to make.

Now, this is exactly the case with all monopolists, and all trades which have got protecting duties ; and yet the language invariably held by them, when any one questions the policy of restrictions, is that of people who are most valuable contributors to the wealth of the nation, who ought to be venerated, and have a prescriptive right to be remunerated,—instead of being precisely the persons who diminish the wealth of the country, and whose injurious monopoly ought to be got rid of with all possible dispatch. Many persons admit the failure of protective duties to increase wealth, but, nevertheless, stoutly maintain that the repeal of such duties ought not to take place, unless it be reciprocal between trading countries. For example, that England could not safely repeal her protective duties—say on wheat—unless Germany repealed hers, on our hardware, for instance. The wealth of this country consists, as we have seen, in the amount of the commodities we possess. Supposing that we import to-morrow 1,000,000 quarters of wheat, the foreign merchant must either be paid or not paid. If he is polite enough to give us the wheat for nothing, we are richer by a million quarters ;—if he takes bank-notes or gold, they must equally come back again, as we have already seen, to be exchanged for manufactures : so that, if the foreigner



chooses to be paid at all, he must and can only be paid by taking out the value of the wheat in our cottons, cloths, or hardware. Thus, it is demonstrable, that if we buy of foreigners they must buy of us in return. And as to the duties foreign countries choose to impose on the goods which their own merchants bring back in repayment for what they have brought to England, that is manifestly immaterial to us. So long as we choose to buy of them, the difficulties foreign countries think proper to put in the way of being paid, are their affair, and not ours. The reciprocity fallacy is a mere scarecrow ; and Switzerland, with her astonishingly prosperous condition, with perfectly free trade, though encompassed and begirt with a cordon of foreign custom-houses, is an ungainsayable evidence that not one of the fallacies urged by the opponents of Free Trade is a greater humbug than the doctrine of Reciprocity.

There is another, and only one other, fallacy, to which I think it necessary to allude ; namely, that it is the interest of the country to keep up prices ; and that if every thing was cheap, every body would be ruined. Now, if one trade alone can get high prices, there is no question it will get rich ; but how does the case stand when all other trades get high prices ? Does it ever occur to this class of objectors, that there is such a thing as robbing Peter to pay Paul ? And that, taking the country at large, a man may just as well set about



enriching himself by filling his right-hand pocket by taking money out of his left, as for a country to enrich itself by making every body pay double to every body for every thing. The fact is, that a cloud of error is engendered by the terms high and low prices. By a simple addition to, or diminution from, the currency,—by printing a few new bank notes, or burning a few old ones, prices are raised or lowered without in the least degree changing the actual wealth of the nation in the aggregate ; though, of course, the shares of individuals are often materially affected when contracts exist, formed when money was one value, and to be paid when it is another value. But I repeat it as an undeniable axiom, that, as the real wealth of a country consists in commodities, and in nothing but commodities, nothing can change that wealth but what alters their amount, in proportion to the population among whom they have to be divided. It is part and parcel of this fallacy to say, that protective duties must be kept up to enable taxes to be paid ; just as if the power to pay taxes must not depend wholly on the wealth of the country. We prove that protective duties diminish the wealth of the country, and, consequently, that we should be *more*, and not less, able to pay taxes, when free trade is established. This sapient doctrine about protecting duties enabling us to pay taxes, means, when interpreted into plain English, that we ought to be kept poor in order to enable us to pay money.

I have now touched on the several chief principles of the theory of Free-trade. I might amplify what I have said tenfold, but I have endeavoured to omit no point essential to the demonstration of the truth of the following plain facts, which I will recapitulate.

1. Remunerating prices—protective duties—or by whatever other name the restrictions on trade are called, mean neither more nor less than making people pay dear for what they could otherwise buy cheap.

2. They mean robbing one tradesman who can make what people will voluntarily buy, to give the same amount of employment and profits to another that cannot; with a loss, besides, to the consumer, who is the community, of the difference.

3. That the importation of foreign cheap goods, instead of destroying a mass of employment at home, on the contrary merely shifts labourers from one trade where they cannot make what people want most, to other trades where they can,—thus increasing and not diminishing the demand for employment, which demand must manifestly increase with the growth of wealth in a country, and decrease with its diminution.

4. That encouragement to trade does not consist in protecting one branch in the production of forty commodities by preventing another branch from producing fifty in the same time, and with the

same labour ; but, on the contrary, in gradually repressing the less productive employments, and encouraging the more productive. Seeing that it is demonstrably the wisest policy of nations to interchange what each can best produce and spare ; and that, consequently, it may be, and ought to be, established as a rule of government, as well as a proven principle of political economy, that the mere fact of a trade requiring to be protected, is a sufficient reason why it ought to be abolished.

Protected trades, like all monopolies, are for the uncertain gain of the few, to the *certain injury* of the *many*. I have endeavoured to clear away some of the mist and error with which this truth is ever sedulously and unceasingly shrouded by those who have any interest in the maintenance of monopoly, and which has its basis in error.

Having dismissed the material and fiscal considerations, whereby, of course, a question of commerce ought to be determined, I cannot, nevertheless, close this chapter without calling attention to the far higher principles than those which regulate what is material, with which freedom of trade is in the closest alliance. I allude to the mighty bond of union between the different branches of the great human family, spread as they are over the face of our common earth, which Commerce, with her wide-stretching arms, winds around the nations of the world, uniting them in communion and fellowship. Weak must be wisdom, and narrow the

philanthropy, of him whose human sympathies are confined to his neighbourhood, and bounded by the four seas which wash the shores of his native land. I for one have seen many countries, and learnt to prefer my own ; but I should do foul injustice to myself, were I to deny the value of the many experiences I have enjoyed, that friendship, knowledge, and each of the richest attributes of humanity, lie open to the enjoyment and to the benefit of those who choose to accept them, independently of the distinctions of language, or the limits of countries. And ardently do I long for the day when friendship shall extend her peaceful empire, and enlarge the sphere of sympathy till it be co-extensive with mankind, and destroy the jealousy which generates division, and weakens the prosperity, of nations whose interests are common.

Then, and not till then, will industry bring forth that full fruition of the productive powers of the world, which can alone be realized by community of interchange ; then shall the nations learn that distress, poverty, and famine arise, not from the ordinance of God, but from the wicked perversity of human laws, which confine to some, and shut out from other, portions of the world, those productions which the beneficence of Providence designed to be freely distributed among the members of the whole family of Man.

And I deem it no slight evidence of the righteousness of the cause of Free Trade, that it is identi-

fied with the widest extension of that communion between nations, which ever has and ever must tend to soften the inhumanities of hatred, remove the horrors of war, and establish peace, concord, and charity, among the nations of the earth.



## APPENDIX.

THE following Tables are interesting, as they exhibit the rise of the commerce of Glasgow,—one but seldom equalled in the annals of mercantile prosperity. I derive them from official sources.

Revenue of the RIVER CLYDE from the year ending 8th July 1825 to 8th July 1837, both inclusive :—

1825,	.	.	.	.	£8,367	11	7
1826,	.	.	.	.	16,204	6	6
1827,	.	.	.	.	14,316	15	9
1828,	.	.	.	.	17,669	14	10
1829,	.	.	.	.	20,194	10	4
1830,	.	.	.	.	20,296	18	6
1831,	.	.	.	.	18,932	0	7
1832,	.	.	.	.	22,496	0	3
1833,	.	.	.	.	21,578	5	2
1834,	.	.	.	.	22,859	14	10
1835,	.	.	.	.	310,91	19	3
1836,	.	.	.	.	35,612	16	0
1837,	.	.	.	.	35,595	8	3

N.B.—In 1826 the tonnage dues were raised from 1/ to 1/4 per ton, and were then let annually by public roup. Since 8th July 1834, the Trustees have retained the collection in their own hands.

## PORT OF GLASGOW.

Abstract of the Amount of Duties on the Exports of Manufactured Goods, and also on the Imports of Raw Cotton, levied at this Port in the years from 1820 to 1837, both inclusive.

YEAR.	EXPORTS.	IMPORTS.
1820	£68 11 9½	£461 16 5
1821	65 8 8	506 5 6
1822	118 3 3	1055 11 2
1823	105 13 8	201 5 0
1824	161 6 2	1724 11 5
1825	87 19 10	194 6 3
1826	94 15 0	970 17 9
1827	372 18 4	2524 14 10
1828	159 8 6	1530 0 0
1829	104 8 10	868 18 7
1830	127 16 7	2485 19 5
1831	102 1 11	1267 7 0
1832	121 1 9	2115 5 10
1833	157 12 10	975 6 2
1834	239 13 11	2968 0 0
1835	490 3 8	6192 8 9
1836	744 9 7	3333 1 8
1837	961 7 8	6859 1 6

## PORT OF GREENOCK.

Abstract of Amount of Duty received on *Raw Cotton* imported in the years 1820 to 1837, both inclusive.

1820,	£23,770 19 4	Brought forward, £136,645 14 8	
1821,	16,448 5 3	1830,	13,859 3 11
1822,	17,502 18 10	1831,	16,305 4 11
1823,	15,400 16 9	1832,	27,372 18 9
1824,	12,278 13 7	1833,	17,898 18 11
1825,	16,061 2 9	1834,	18,202 7 7
1826,	7,151 13 11	1835,	15,446 6 8
1827,	11,650 14 10	1836,	15,937 8 7
1828,	9,149 17 0	1837,	15,039 15 11
1829,	7,289 12 5		
			<u>£276,707 19 11</u>
Carry forward, £136,645 14 8			



## PORT OF GREENOCK.

An Abstract of the Amount of Duties received on the Exports of *Manufactured Goods*, in the Years 1820 to 1837, both inclusive.

1820,	.	£1751	5	8	Brought forward, £16,466	2	10
1821,	.	1392	2	0	1830,	.	1611 3 3
1822,	.	1702	15	6	1831,	.	1814 17 7
1823,	.	1597	12	8	1832,	.	1646 0 9
1824,	.	1472	7	1	1833,	.	1713 12 3
1825,	.	1899	9	2	1834,	.	1441 17 7
1826,	.	1508	11	9	1835,	.	1836 19 1
1827,	.	1594	17	6	1836,	.	2055 4 11
1828,	.	1838	8	1	1837,	.	1497 7 2
1829,	.	1708	13	5			
<hr/>					<hr/>		
Carry forward, £16,466 2 10					£30,083 5 5		

## PORT OF PORT GLASGOW (near Greenock).

An Abstract of the Amount of Duties on the Exports of Manufactured Goods, and also on the Imports of Raw Cotton, levied at this Port in the Years from 1820 to 1837, both inclusive.

YEARS.	Amount of Duties.	
	On the Exports of Manufactured Goods.	On the Imports of Raw Cotton.
1820	£631 12 0	£7634 5 10 ³ / ₄
1821	360 10 7	2623 16 3 ¹ / ₄
1822	465 15 1	434 3 8 ³ / ₄
1823	350 17 11	60 14 7
1824	573 7 11	182 10 9 ³ / ₄
1825	398 19 2	453 6 2
1826	417 15 6	1006 6 9
1827	529 3 2	5395 8 4
1828	552 1 8	3019 6 5
1829	577 19 6	1786 7 7
1830	373 12 7	3953 1 11
1831	375 8 2	2112 16 5
1832	395 1 4	4833 17 5
1833	360 19 2	3958 0 11
1834	326 1 11	3080 12 8
1835	317 17 1	3714 4 1
1836	394 18 6	2420 18 5
1837	265 19 0	3222 6 6

The following were the Duties at different periods on Cotton and Manufactures :

Before 1831, raw cotton was admitted at 6 per cent. ad valorem.

From 1831 to 1833, at  $5/10$  per cwt.—to make up for repeal on printed calicoes.

From 1833 to now, at  $2/11$  per cwt.

*Raw material from home colonies is admitted at  $/4$  per cwt.*

The amount of duties prior to 1833 averaged for three years L.449,760 for the United Kingdom.

Antique enactments for the benefit of British trade :

In 1721, an act passed imposing L.5 on weaver, and L.20 on seller, of a piece of cotton cloth.

In 1736, “calicoes” were tolerated, “provided the warp thereof was entirely of linen yarn.”

In 1774, the Legislature tolerated calico! both waft and warp!! *at a duty of  $/3$  a yard* ; but, in 1806, the Legislature, alarmed at its liberality, added  $\frac{1}{2}$ d. to the protective  $/3$ , together with some salutary stamping on the calicoes to legitimise them.

In 1833, madness ended, and calicoes were freed.

FINIS.







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