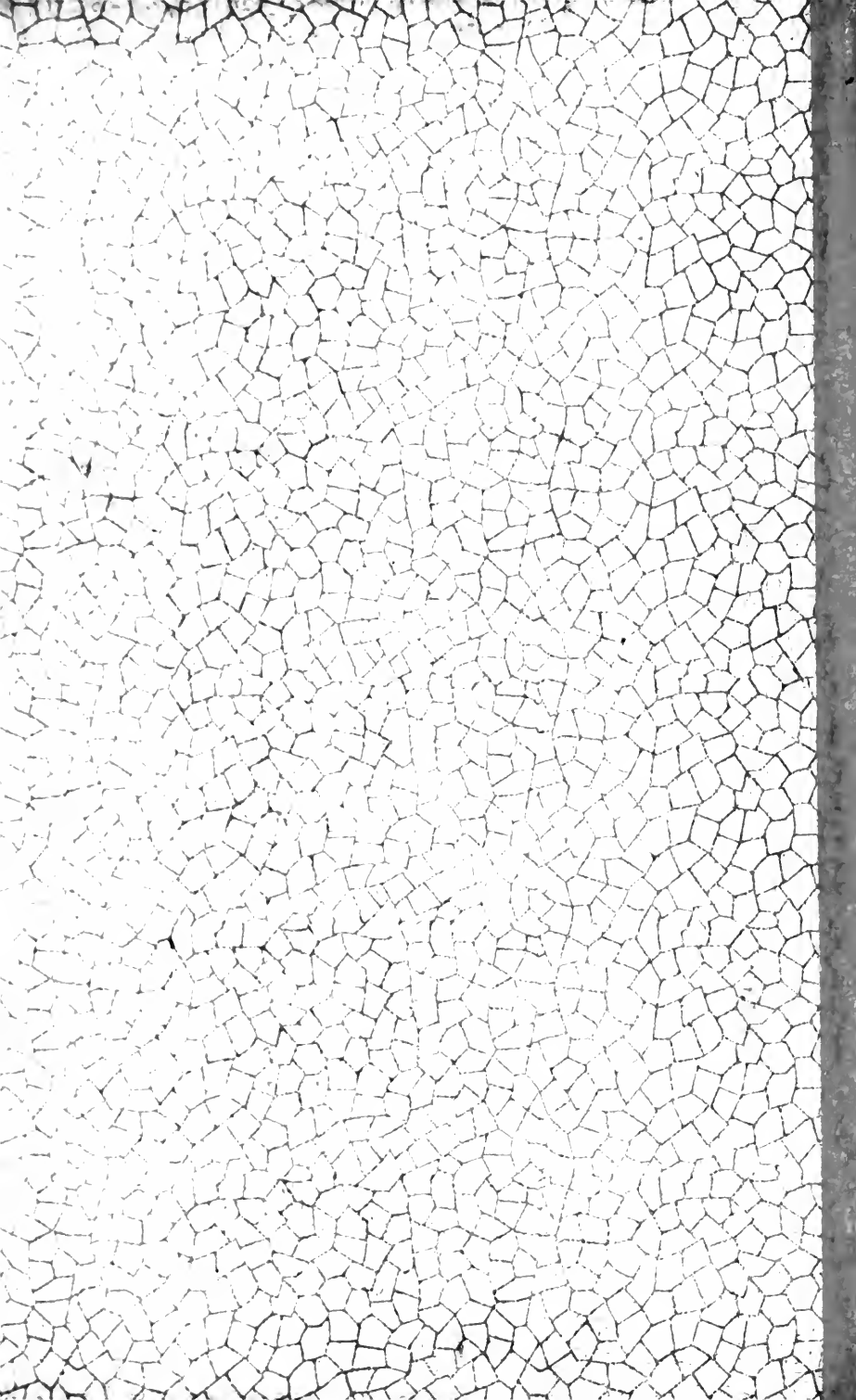


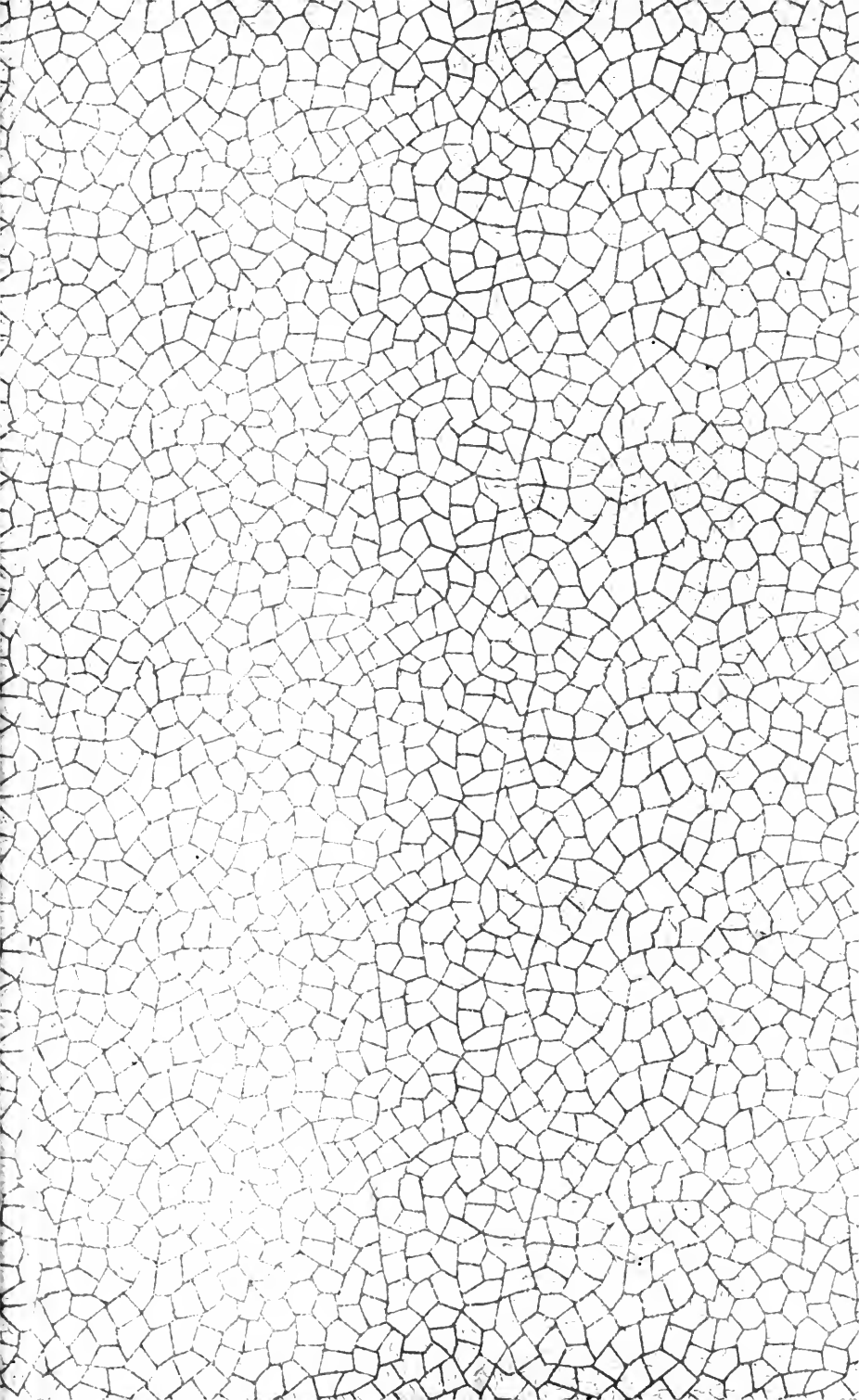
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ANNUAL 1894







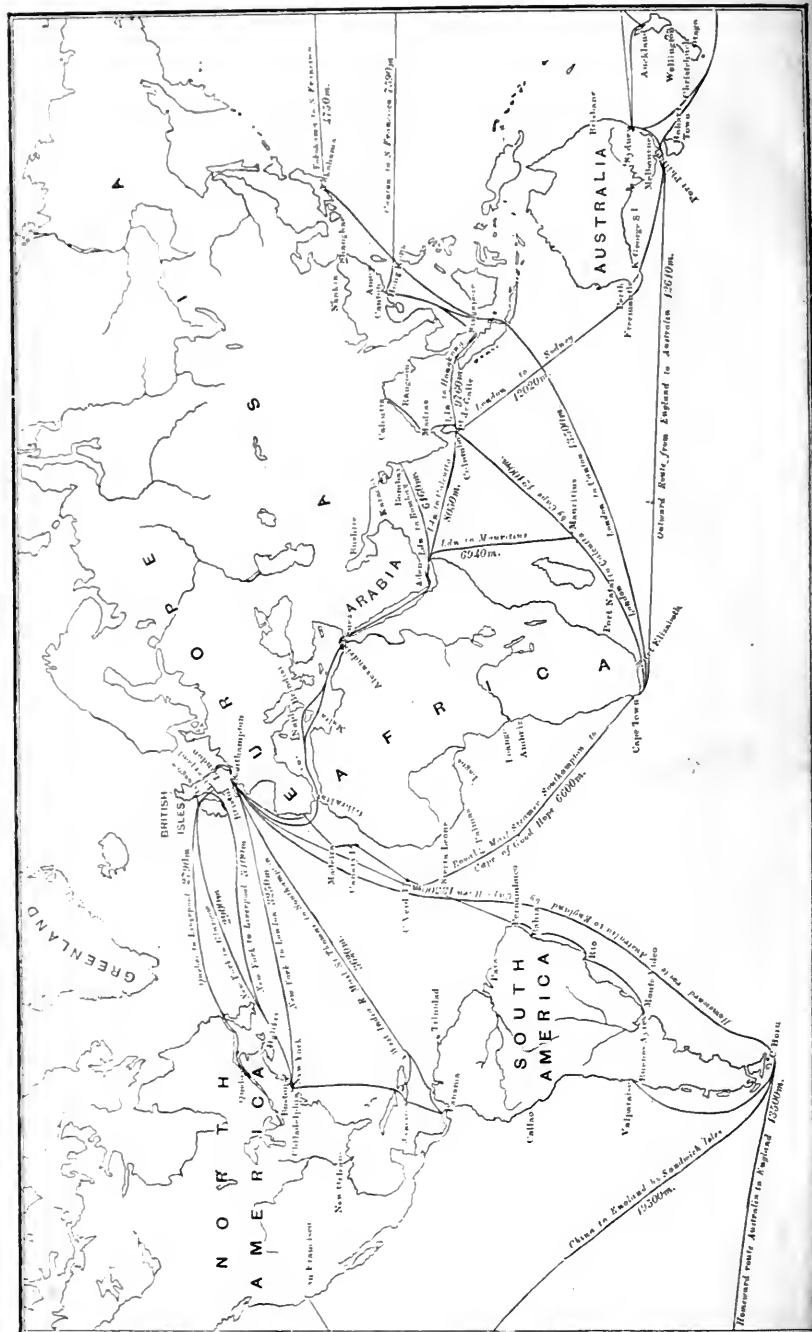


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# Map of the World.

SHOWING ROUTES TO BRITISH POSSESSIONS FROM GREAT BRITAIN.



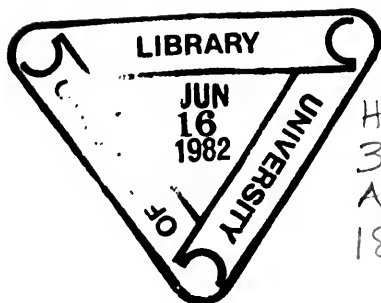
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ENGLAND AND SCOTLAND.

ANNUAL FOR 1894.



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NEW MOUNT STREET, ANGEL STREET.



## PREFACE.

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IN introducing this, the twelfth, volume of the "Annual" to our readers, we would say that our endeavour has been to select subjects of interest and utility to our members.

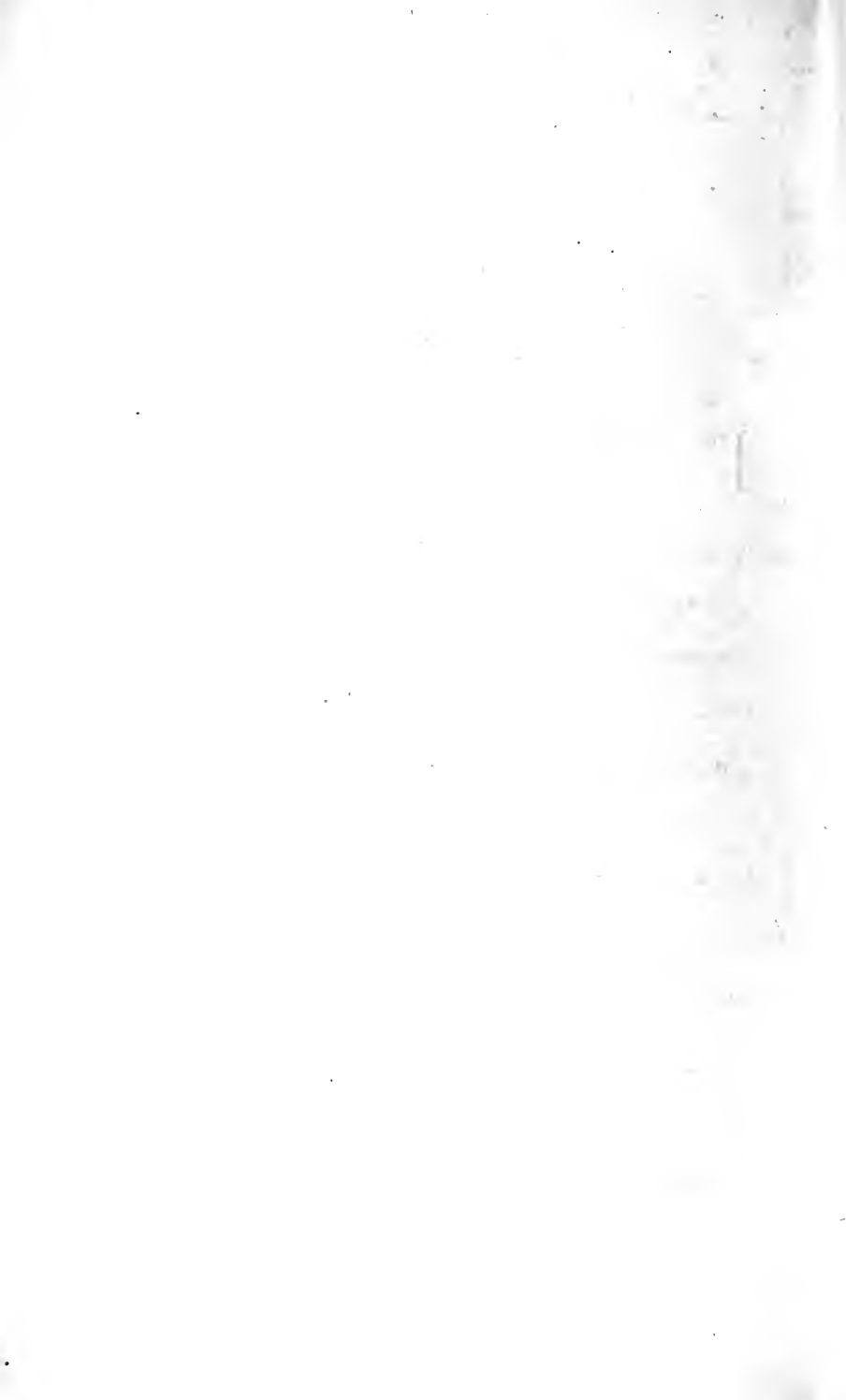
Co-operators, we think, should take an active part in the advocacy and propagation of measures having for their aim the welfare and advancement of the people.

We can conceive of no means better calculated to equip them for this work than to put before them in the Articles, Statistics, &c., as herein presented, accurate and reliable information.

We trust these objects will commend themselves and secure a careful and thorough perusal of the contents.

THE COMMITTEE.

DECEMBER 20, 1893.



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Woollen Cloth Department .....	24, 50, 56, 91, 103	..	..
"    Mill, Batley .....	35, 50, 87, 101	..	..

THE  
**Co-operative Wholesale Society**  
LIMITED.



PLATES, ADVERTISEMENTS, STATISTICS, &c.,

PAGES 1 TO 117.





# Thirty Years' Progress

OF

## Co-operative Societies in the United Kingdom.

YEARS.	SALES. £	YEARS.	SALES. £
1862 .....	2,333,523	1877 .....	21,390,447
1863 .....	2,673,778	1878 .....	21,402,219
1864 .....	2,836,606	1879 .....	20,382,772
1865 .....	3,373,847	1880 .....	23,248,314
1866 .....	4,462,676	1881 .....	24,945,063
1867 .....	6,001,153	1882 .....	27,541,212
1868 .....	7,122,360	1883 .....	29,336,028
1869 .....	7,353,363	1884 .....	30,424,101
1870 .....	8,201,685	1885 .....	31,305,910
1871 .....	9,463,771	1886 .....	32,730,745
1872 .....	13,012,120	1887 .....	34,483,771
1873 .....	15,639,714	1888 .....	37,793,903
1874 .....	16,374,053	1889 .....	40,674,673
1875 .....	18,499,901	1890 .....	43,731,662
1876 .....	19,921,054	1891 .....	49,024,171

TOTAL SALES IN THE THIRTY YEARS, 1862 TO 1891.	} £605,684,602.
TOTAL PROFITS IN THE THIRTY YEARS, 1862 TO 1891.	} 52,403,650.

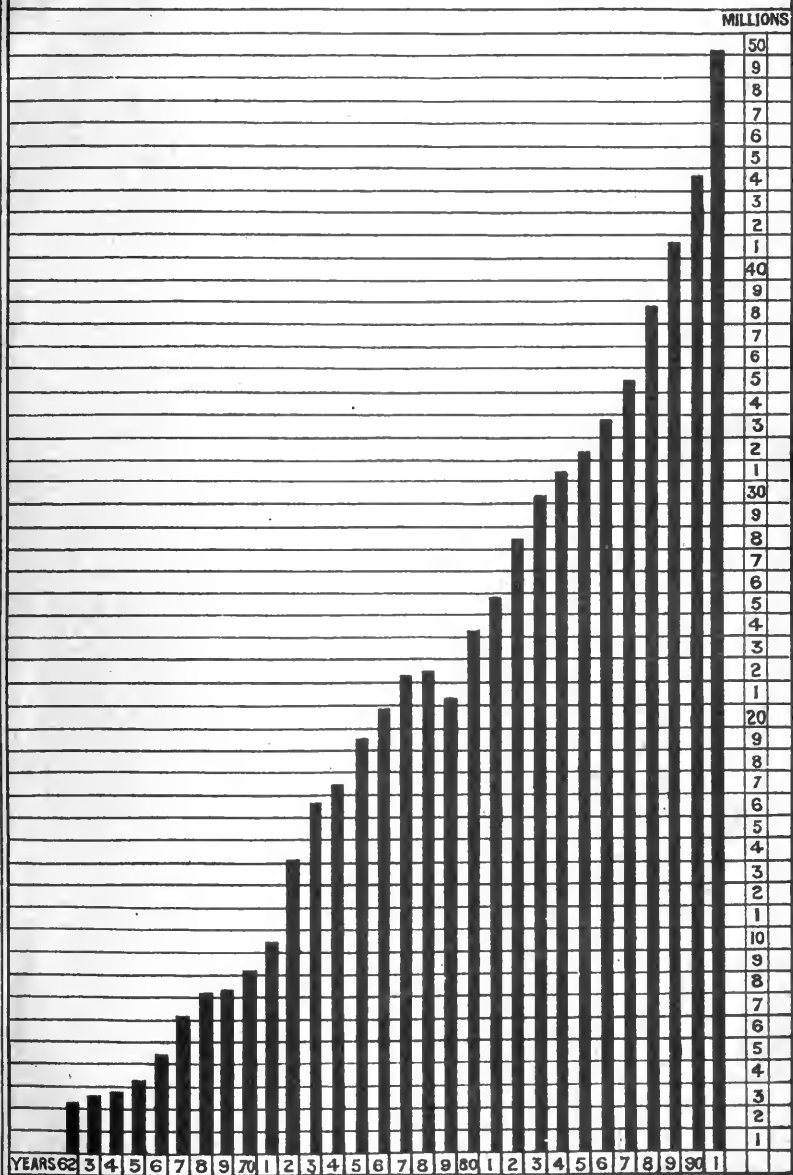
### STATISTICAL POSITION OF CO-OPERATIVE SOCIETIES IN THE UNITED KINGDOM,

DECEMBER 31ST, 1891.

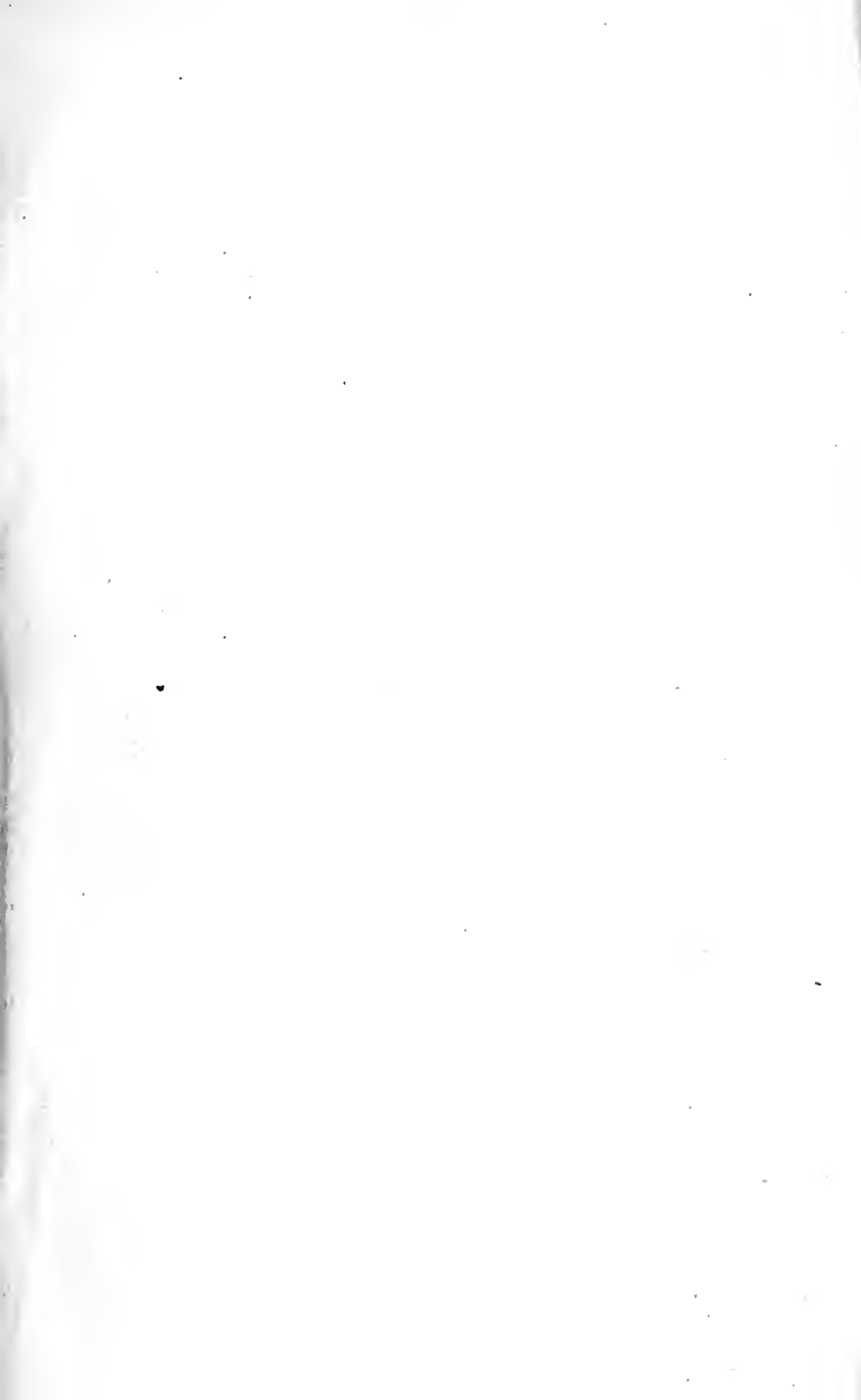
*Compiled from the Returns made by Societies to the Registrar and  
Co-operative Union.*

Number of Members	... ..	1,207,511	£
Share Capital	... ..	13,847,705	
Loan Capital	... ..	3,393,394	
Sales for 1891	... ..	49,024,171	
Net Profits for 1891	... ..	4,718,532	
Devoted to Education, 1891	... ..	30,087	

# Thirty Years' Progress of Co-operative Societies in the United Kingdom.







*Twenty-nine Years' Progress*  
OF  
*The Co-operative Wholesale Society Limited.*

YEARS.	SALES. £	YEARS.	SALES. £
1864 ( <sup>90</sup> Weeks)	51,857	1879 ( <sup>50</sup> Weeks)	2,645,331
1865 .....	120,754	1880 .....	3,339,681
1866 .....	175,489	1881 .....	3,574,095
1867 ( <sup>65</sup> Weeks)	331,744	1882 .....	4,038,238
1868 .....	412,240	1883 .....	4,546,889
1869 .....	507,217	1884 ( <sup>58</sup> Weeks)	4,675,371
1870 ( <sup>58</sup> Weeks)	677,734	1885 .....	4,793,151
1871 .....	758,764	1886 .....	5,223,179
1872 .....	1,153,132	1887 .....	5,713,235
1873 .....	1,636,950	1888 .....	6,200,074
1874 .....	1,964,829	1889 ( <sup>58</sup> Weeks)	7,028,944
1875 .....	2,247,395	1890 .....	7,429,073
1876 ( <sup>58</sup> Weeks)	2,697,366	1891 .....	8,766,430
1877 .....	2,827,052	1892 .....	9,300,904
1878 .....	2,705,625		

TOTAL SALES IN THE TWENTY-NINE YEARS, } **£95,542,743.**  
1864 TO 1892.

TOTAL PROFITS IN THE TWENTY-NINE YEARS, } **1,262,189.**  
1864 TO 1892.

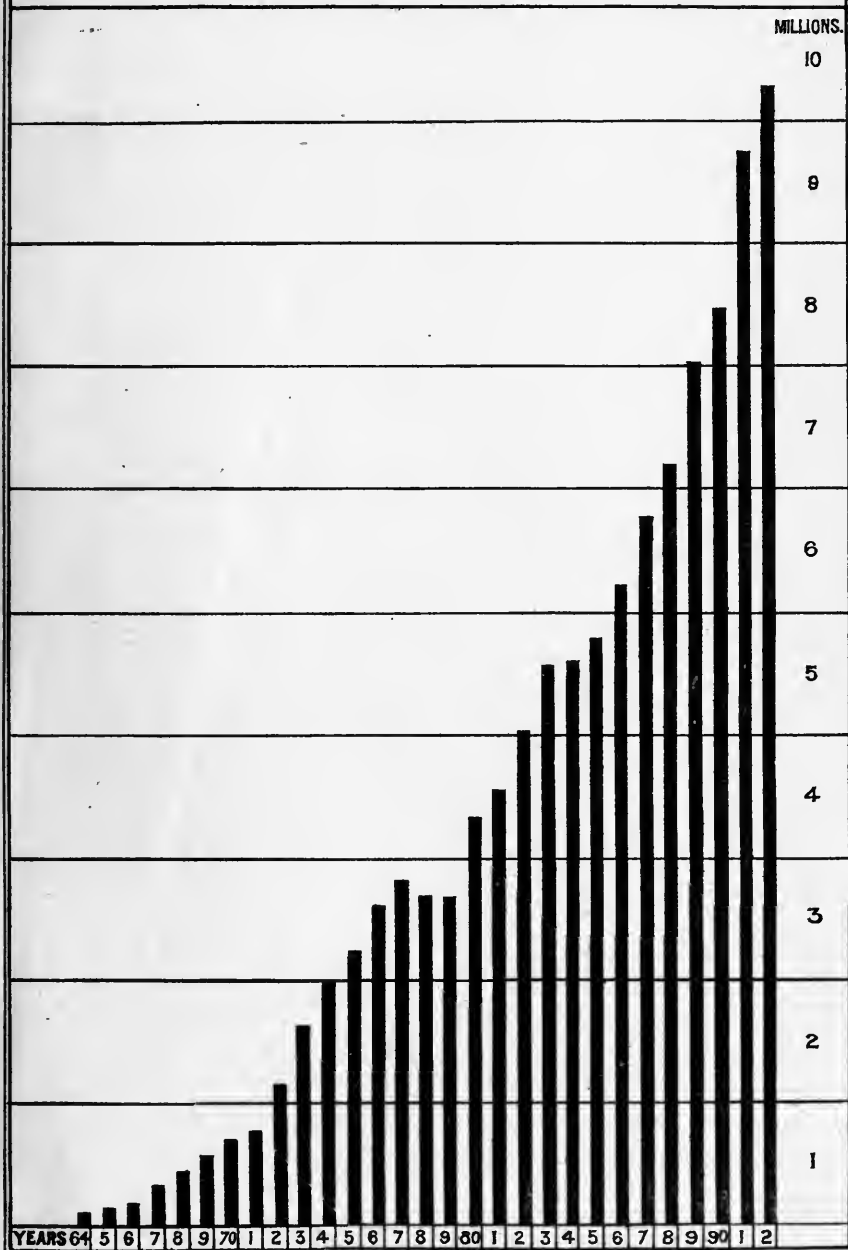
STATISTICAL POSITION OF THE CO-OPERATIVE  
WHOLESALE SOCIETY LIMITED,

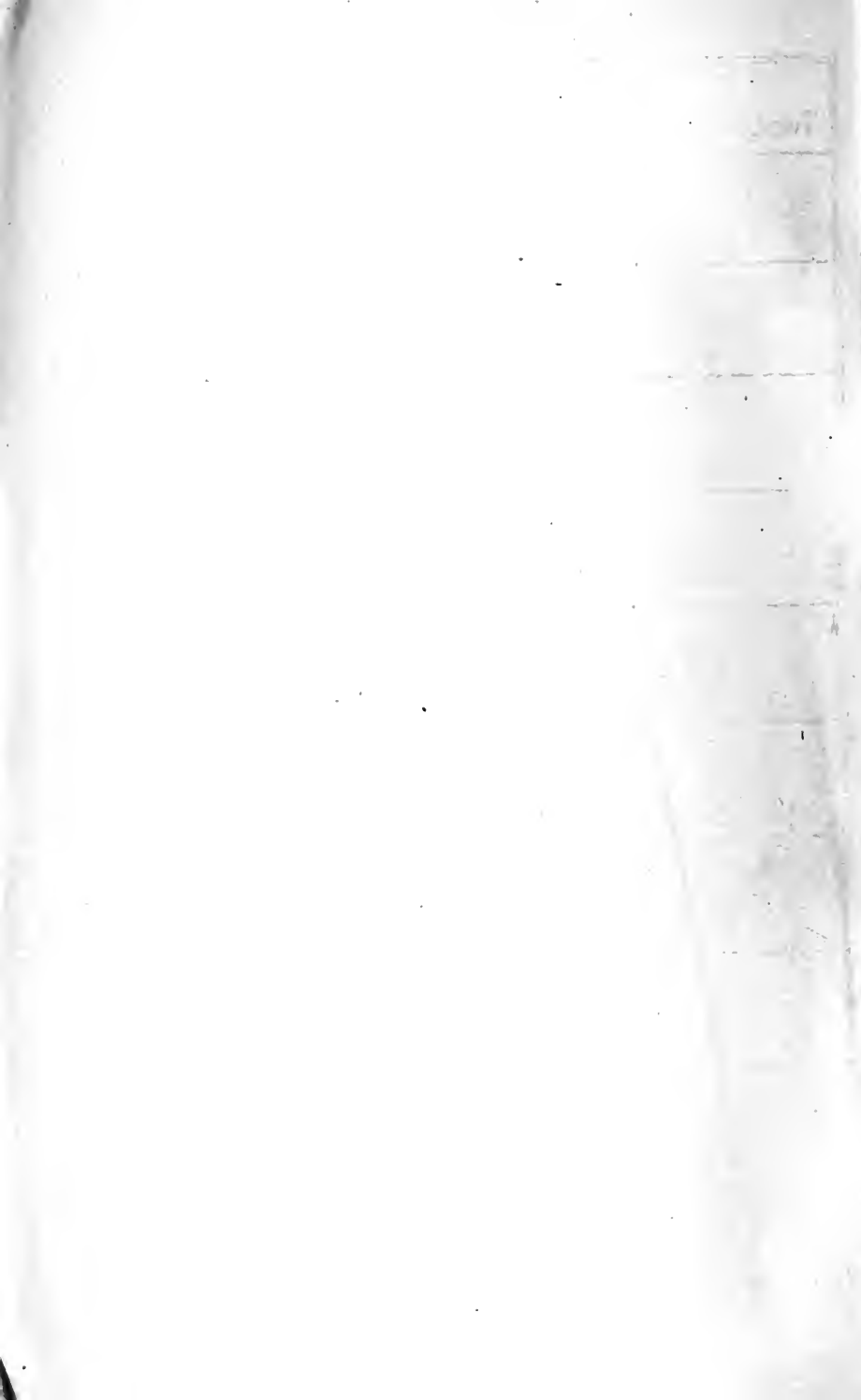
DECEMBER 26TH, 1892.

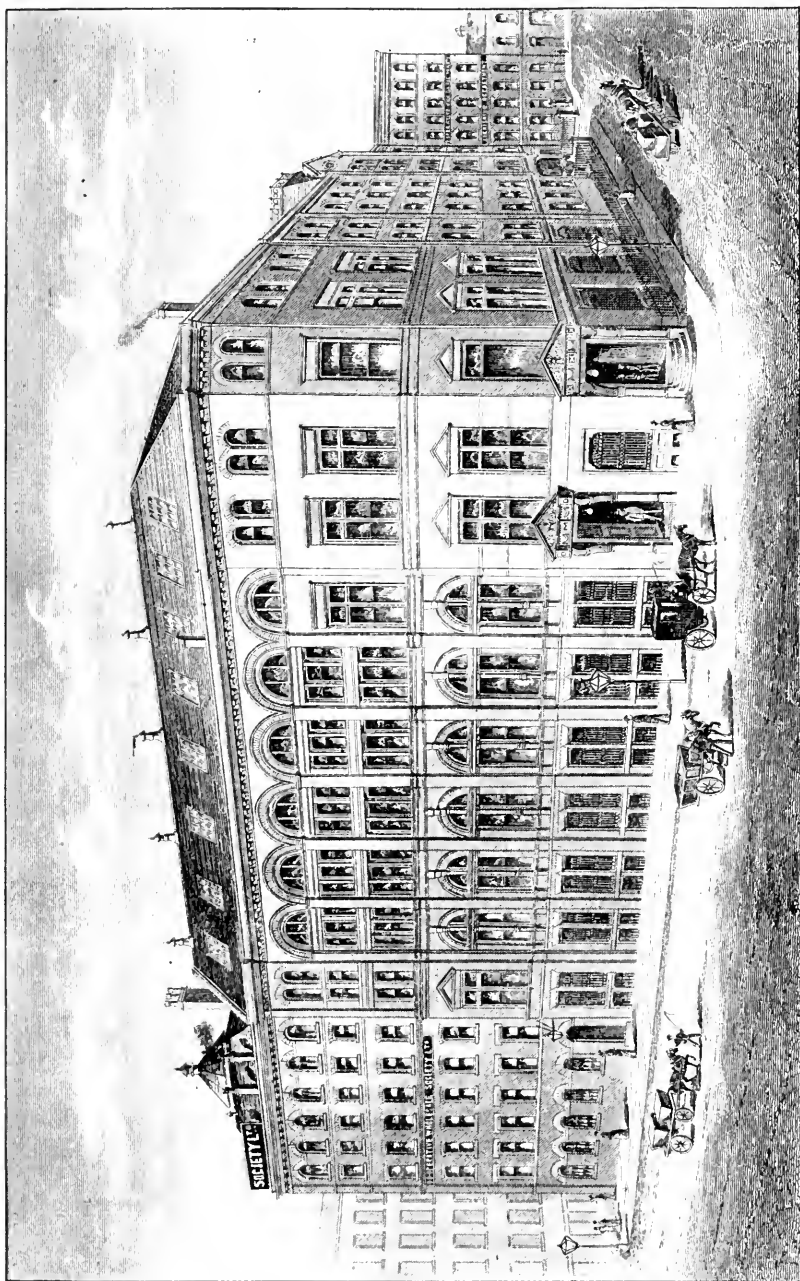
Number of Societies holding Shares...	1,002	
Number of Members belonging to Shareholders	824,149	£
Share Capital		523,512
Loans and Deposits		925,471
Reserve Fund—Trade and Bank		56,301
Insurance Fund		218,534
Sales for Year 1892		9,300,904
Net Profits for Year 1892		98,532



# Twenty-nine Years' Progress of the Co-operative Wholesale Society Ltd.

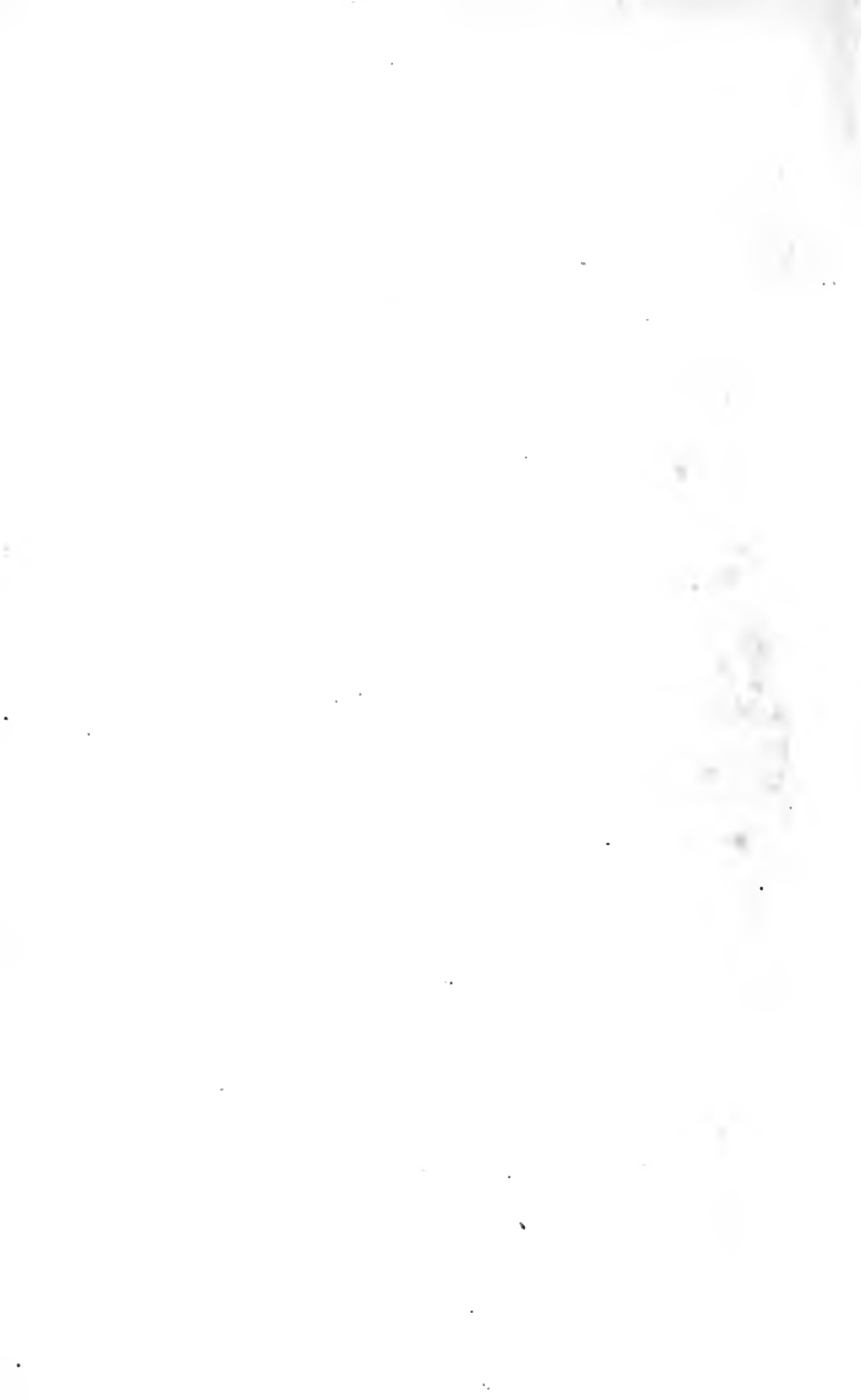


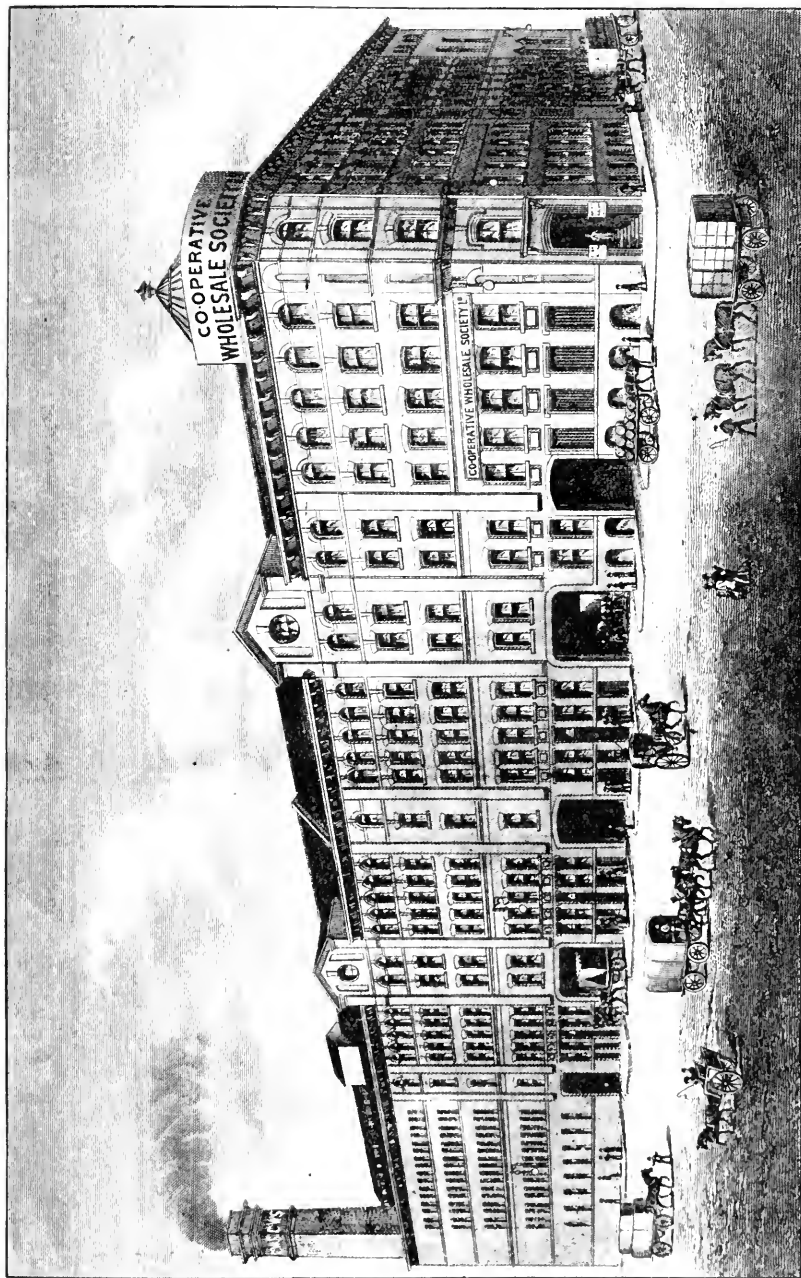




MANCHESTER.

REGISTERED OFFICES, BANK, CENTRAL GROCERY AND PROVISION, BOOT AND SHOE, AND FURNISHING WAREHOUSES,  
BALLOON STREET AND HOLGATE STREET. (See pages 13 to 16, 25, 50, 57 to 60, 91, 92, and 102.)

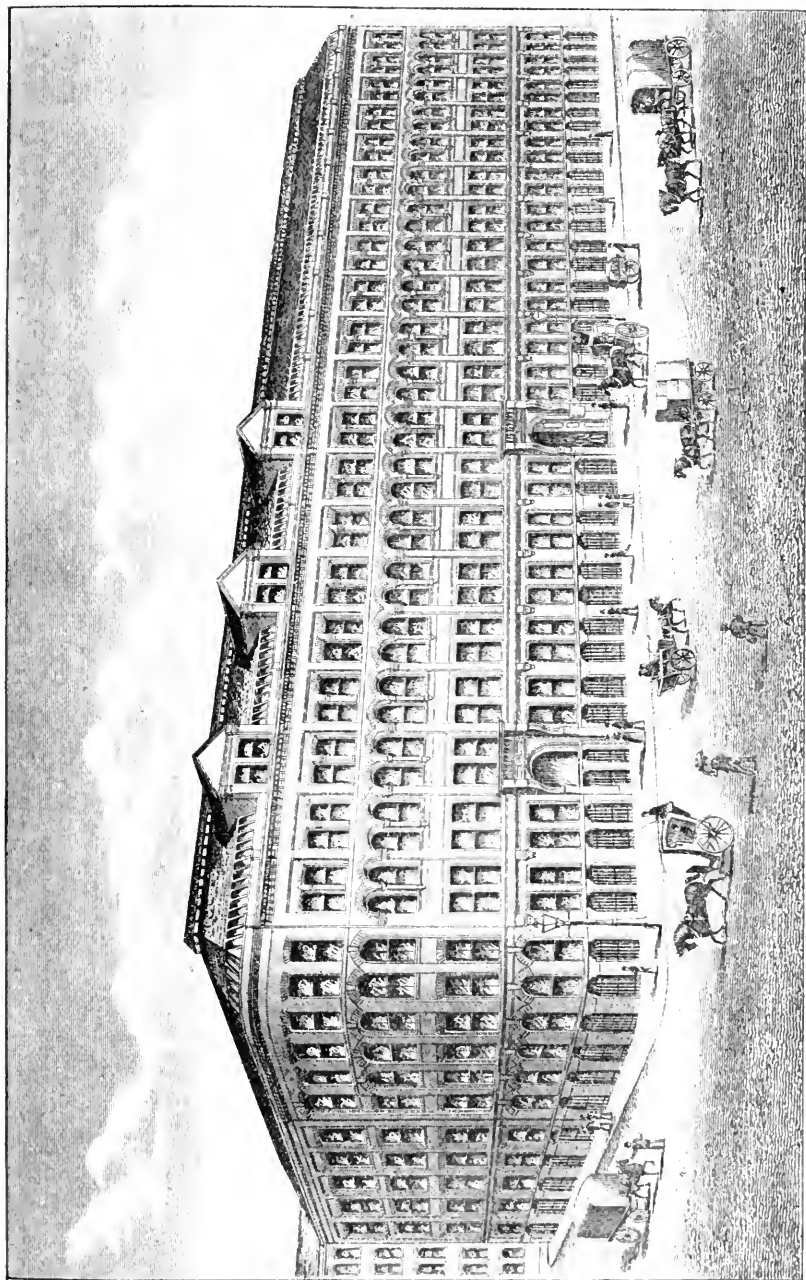




MANCHESTER.

CENTRAL GROCERY AND PROVISION AND BOOT AND SHOE WAREHOUSES, BALLOON STREET AND GARDEN STREET.  
(See pages 14 to 16, 50 to 53, 90, and 102.)





MANCHESTER DRAPERY, WOOLLEN CLOTH, AND READY-MADES DEPARTMENTS.

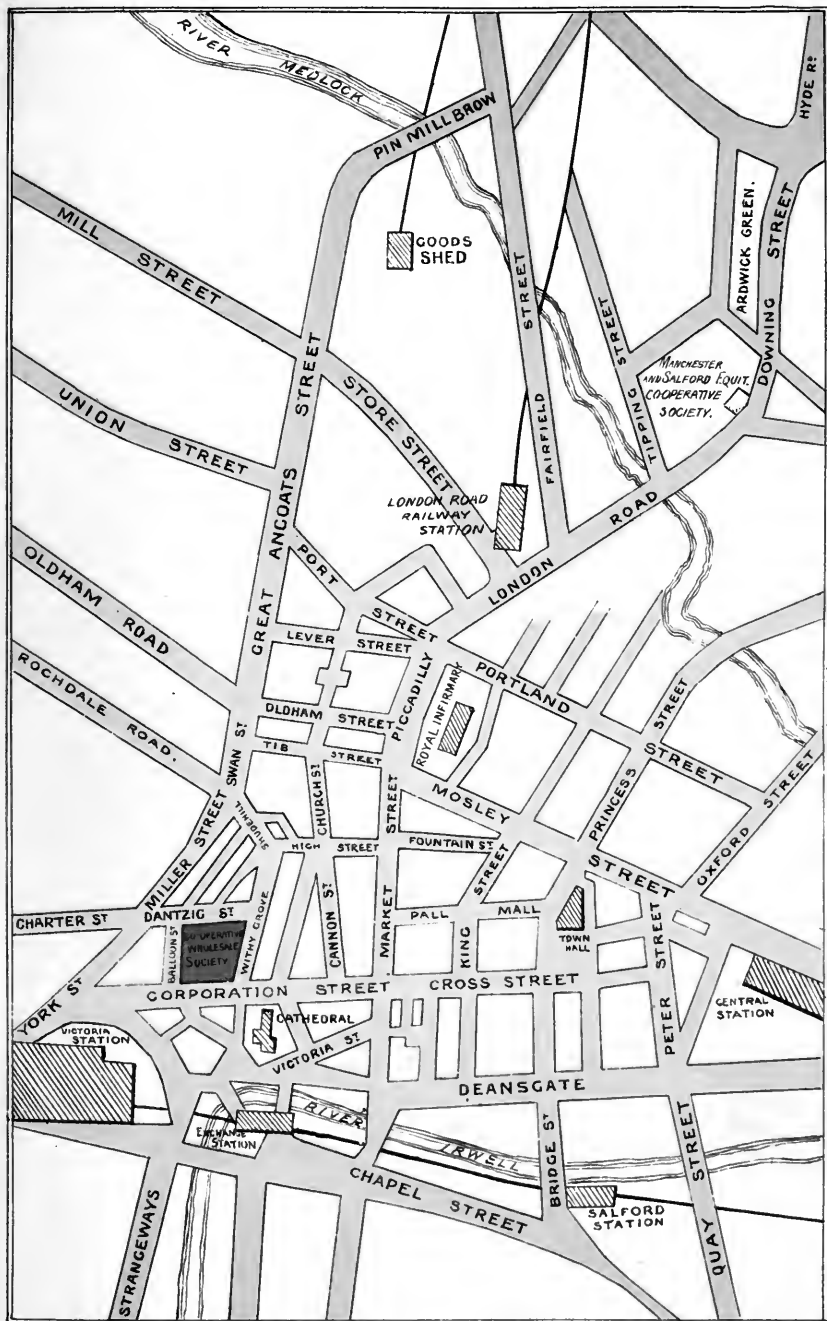
(See pages 22 to 24, 50, 51 to 56, 90, 91, and 103.)

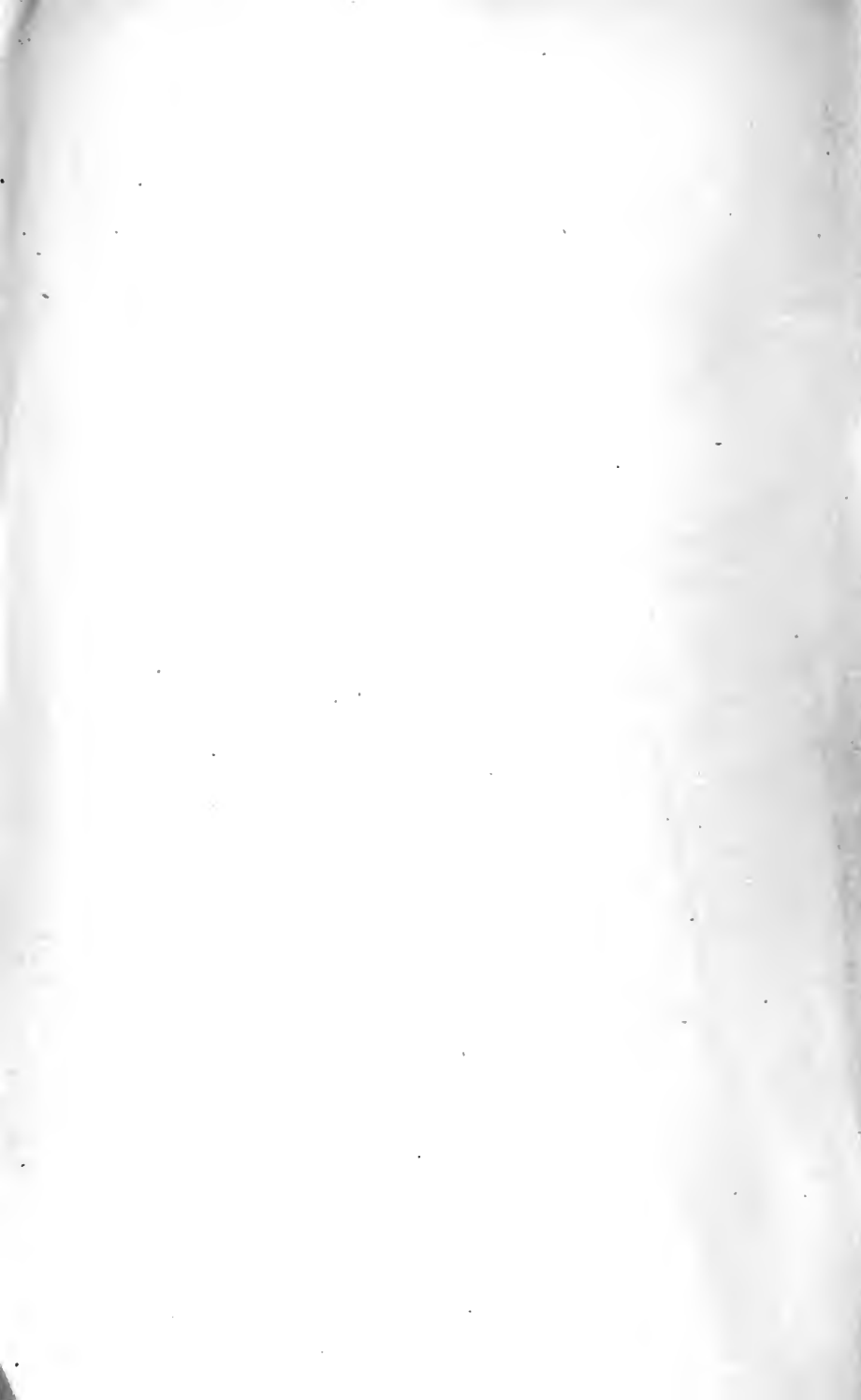


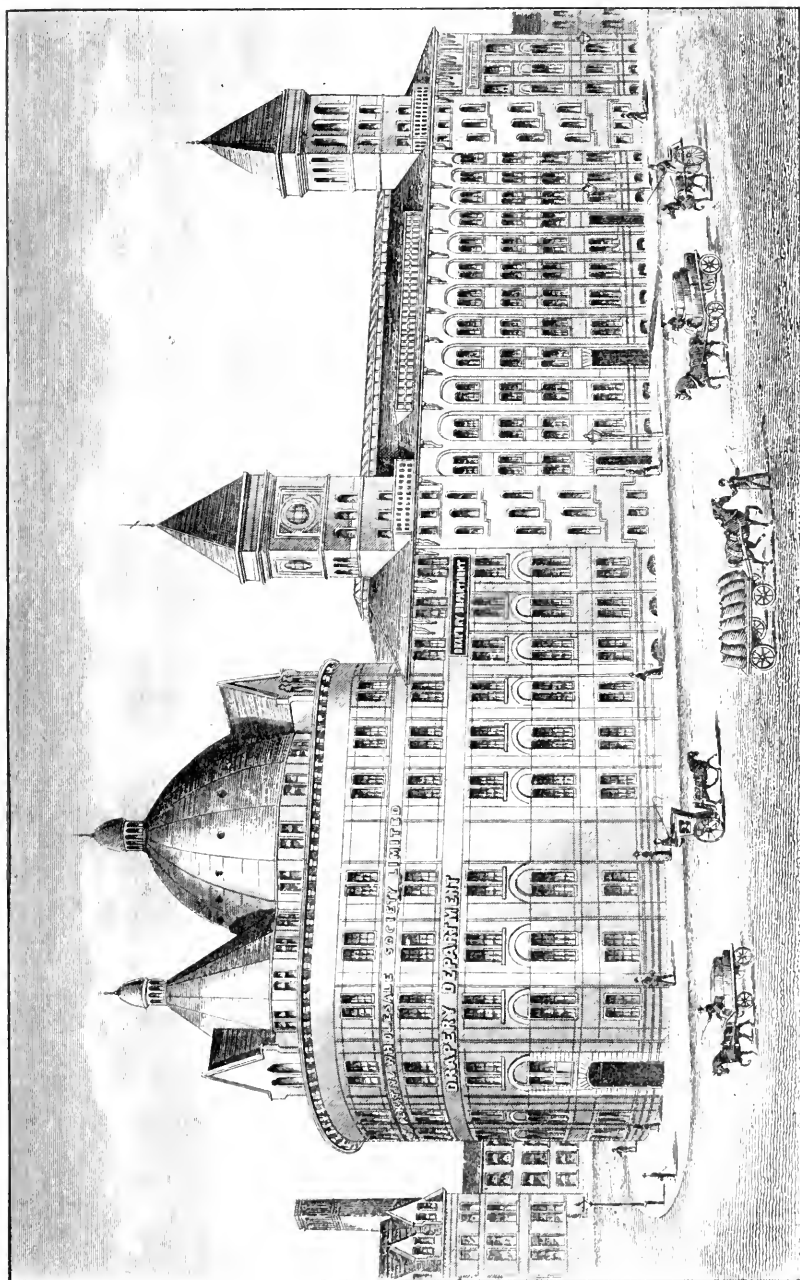


# PLAN OF MANCHESTER.

SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S CENTRAL OFFICES AND WAREHOUSE, FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.

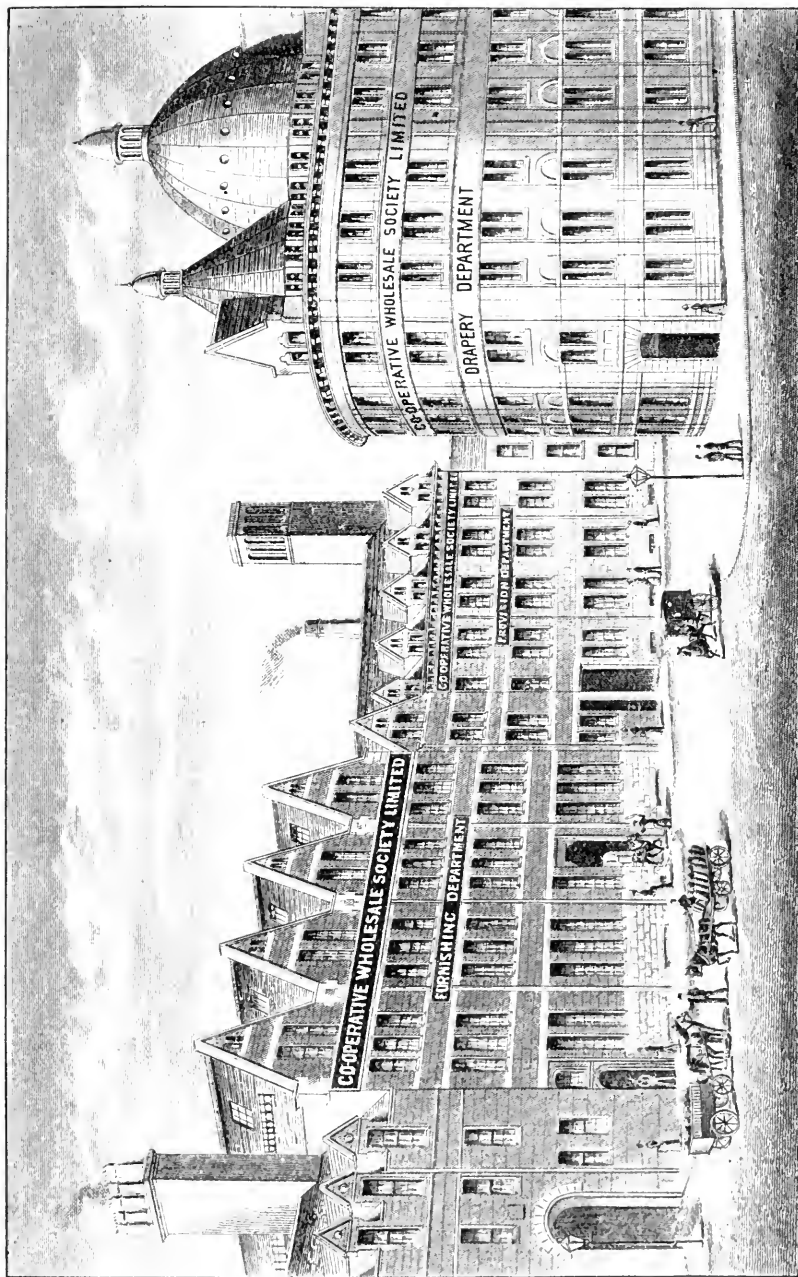






NEWCASTLE BRANCH.  
GROCERY, DRAPERY, AND BOOT AND SHOE DEPARTMENTS, WATERLOO STREET.  
(See pages 50, 61 to 67, 92 to 94, and 104.)





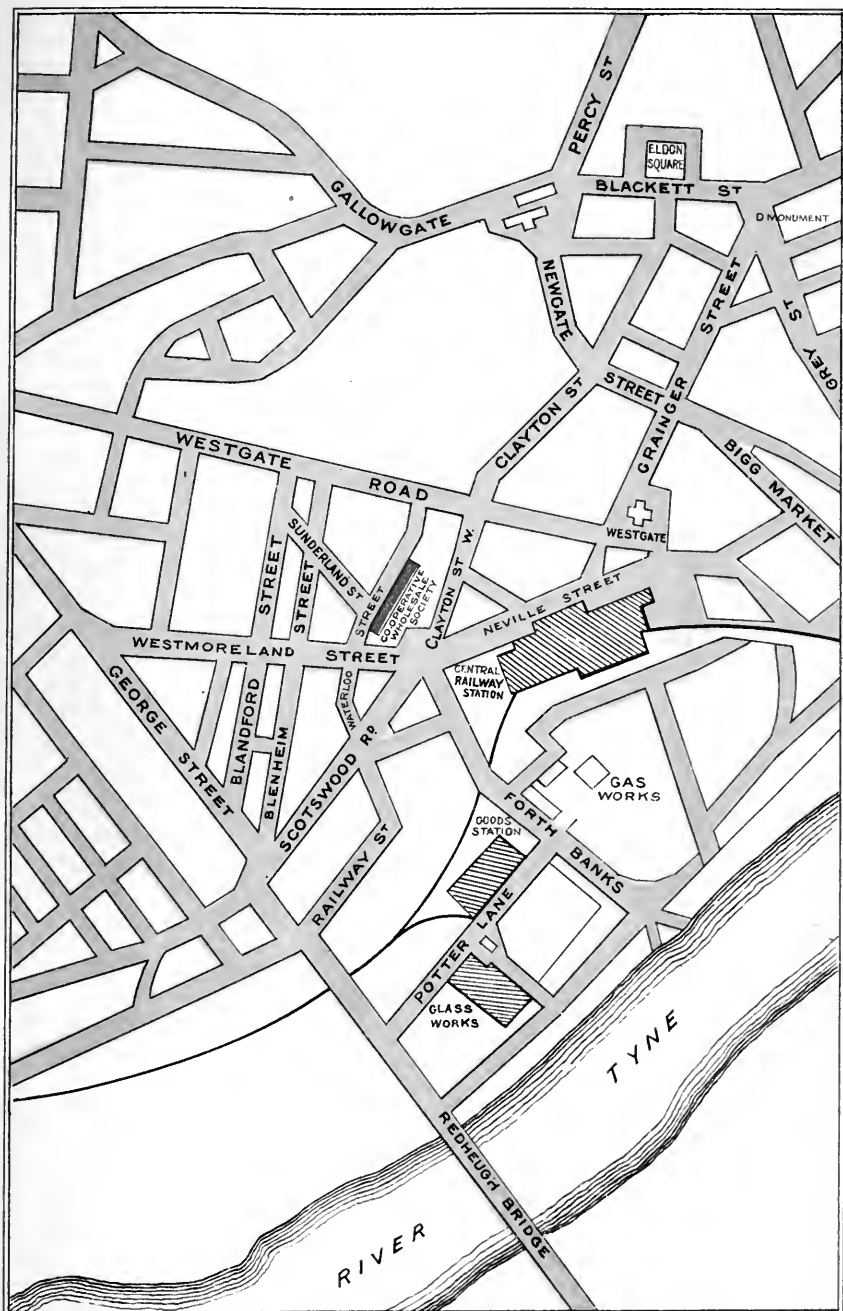
NEWCASTLE DRAPERY, FURNISHING, AND PROVISION WAREHOUSES, THORNTON STREET.

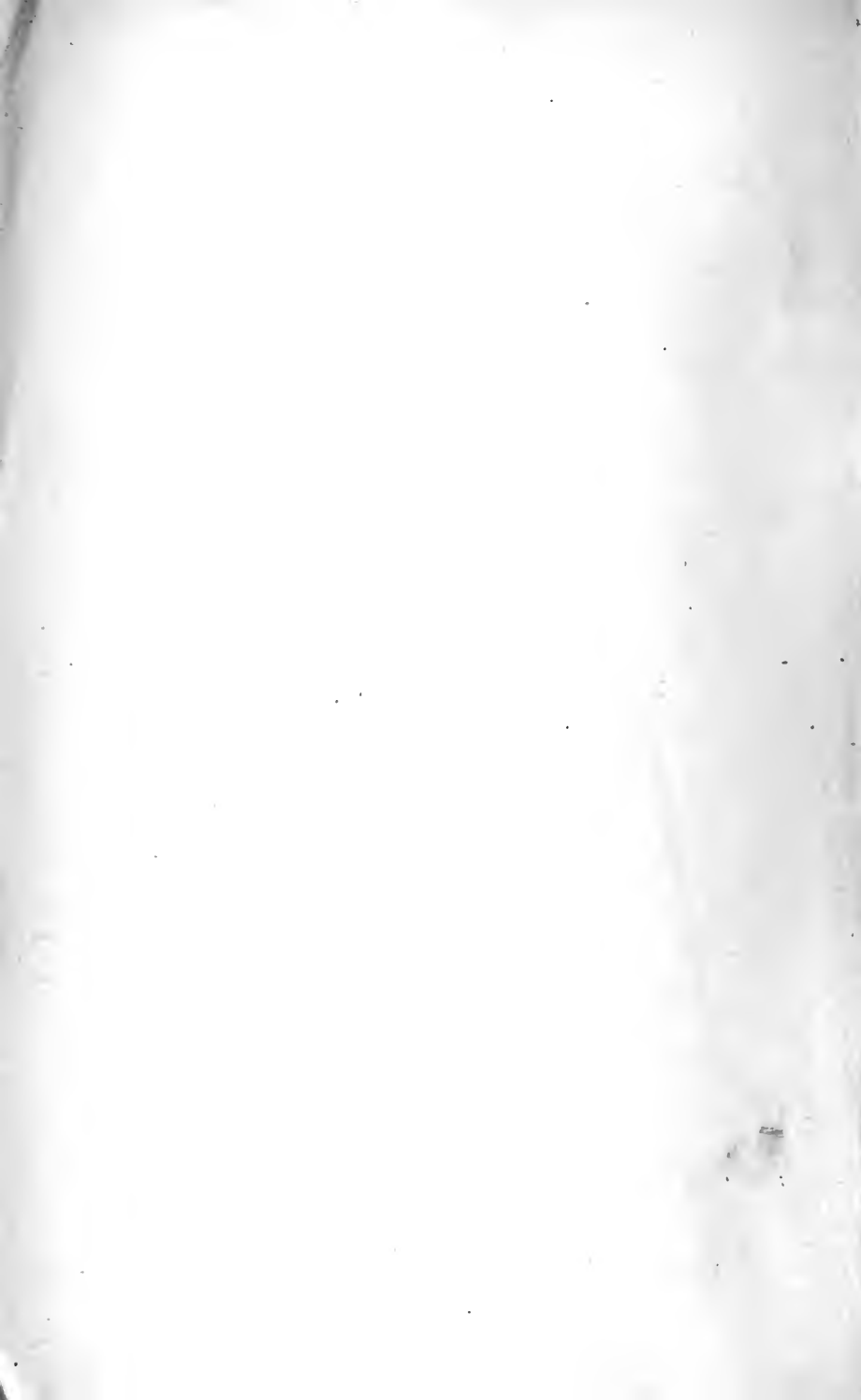
(See pages 80, 61 to 67, 92 to 94, and 104.)



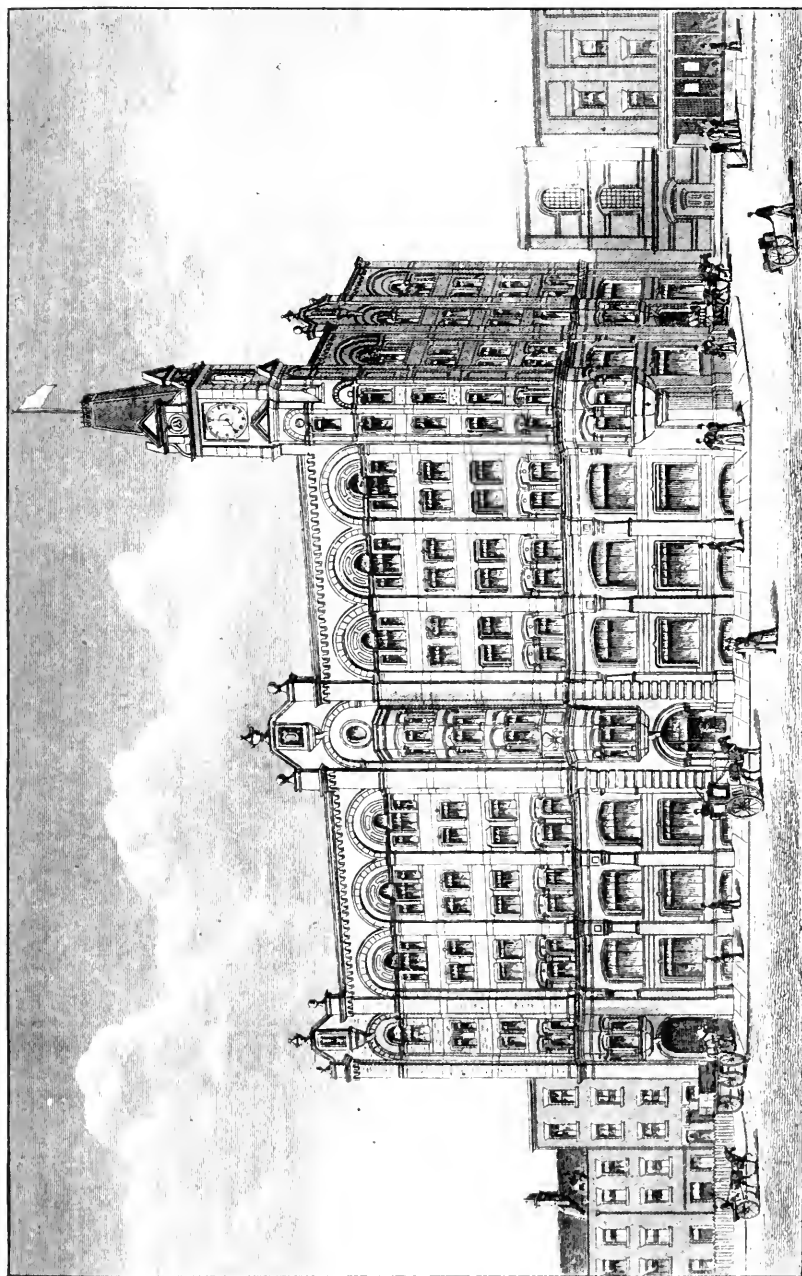
# PLAN OF NEWCASTLE.

SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S NEWCASTLE  
BRANCH PREMISES, FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.









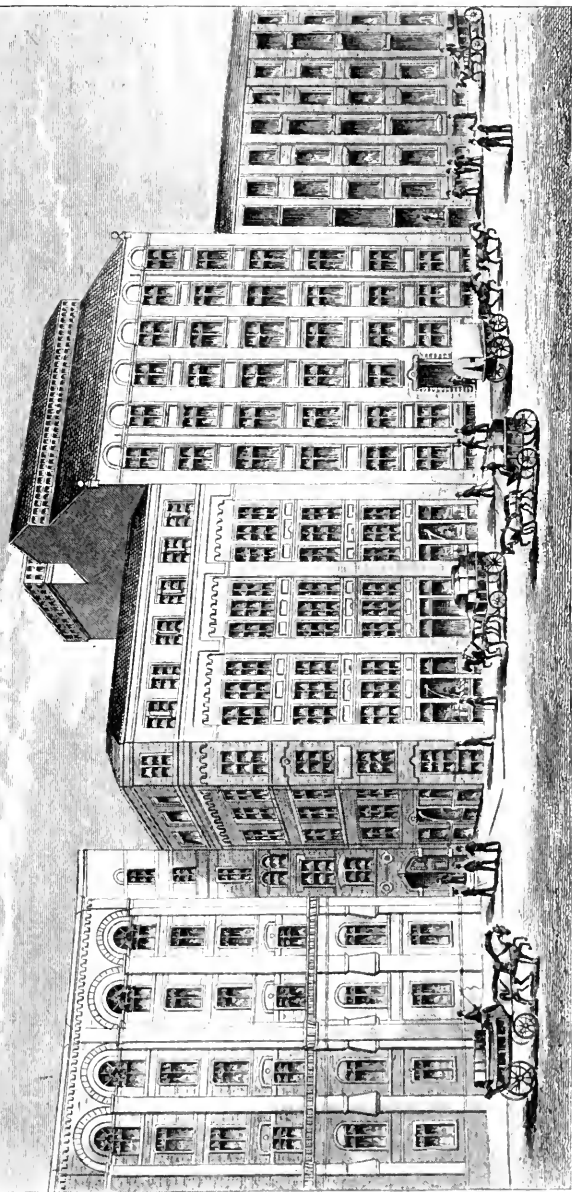
LONDON BRANCH.

GENERAL OFFICES, GROCERY AND DRAPERY DEPARTMENTS, AND CO-OPERATIVE HALL, LEMAN STREET, E.

(See pages 50, 68 to 72, 94 to 96, and 105.)



# LONDON TEA DEPARTMENT.



Nº1.

OFFICES.

Nº2.

TASTING ROOMS  
& DELIVERY DEPARTMENT.

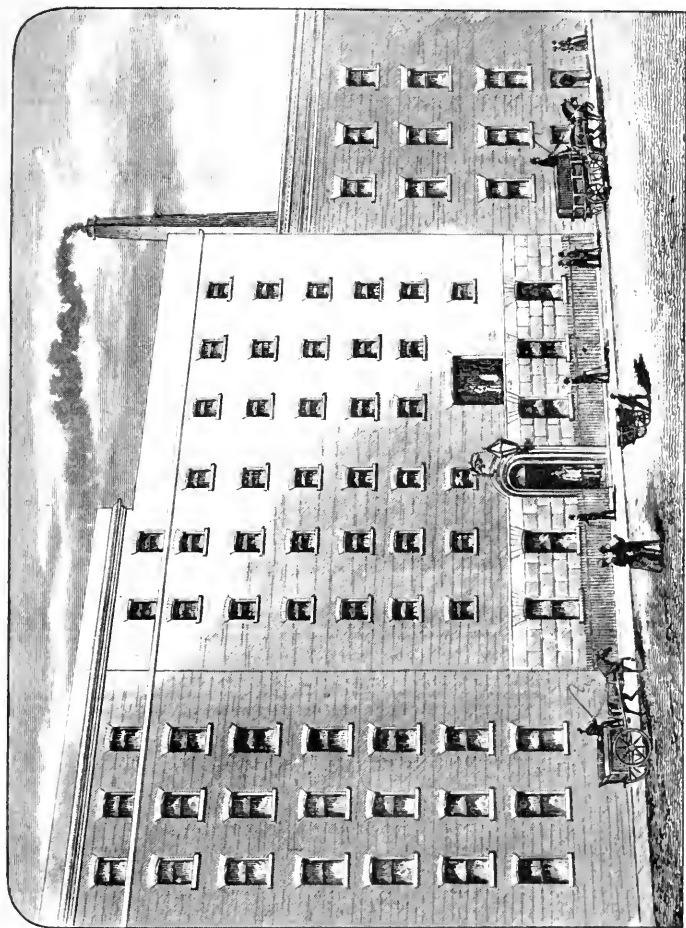
Nº3

TEA BLENDING  
& PACKING  
DEPARTMENT.

Nº4

ORIGINAL IMPORTED  
TEA & RECEIVING  
DEPARTMENT.



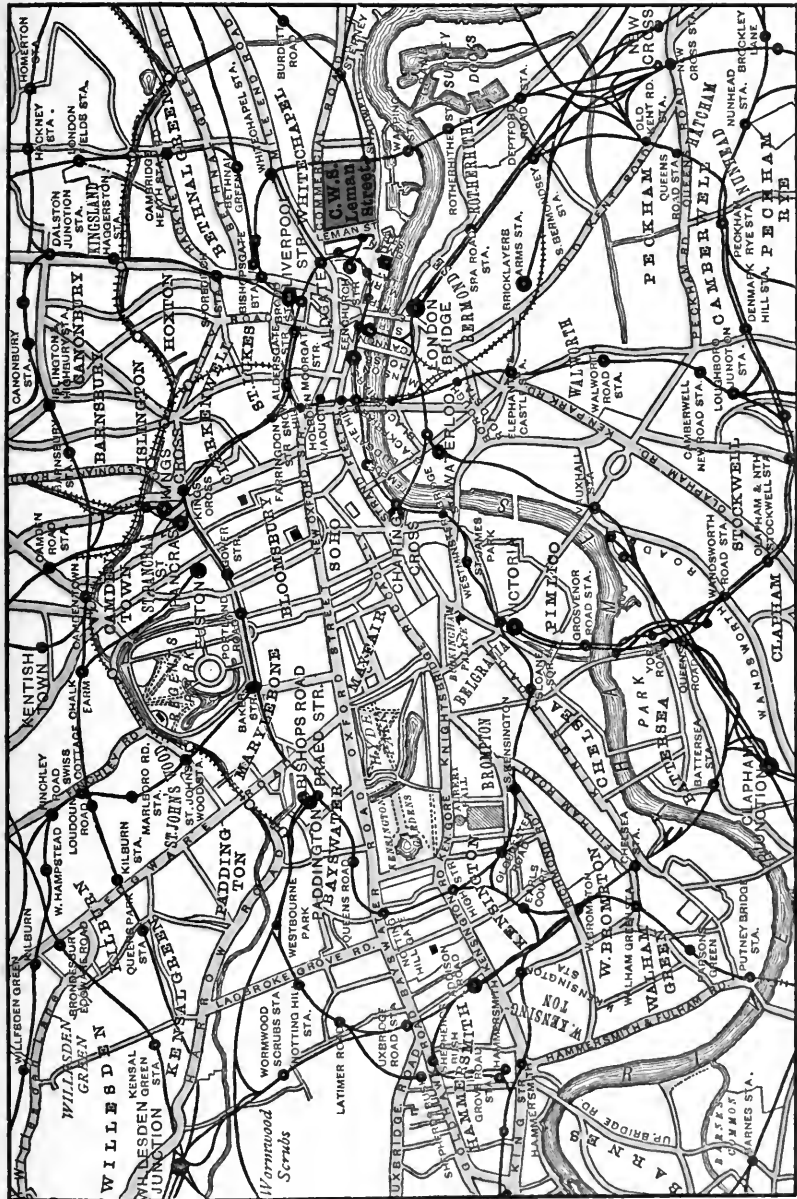


LONDON COCOA AND CHOCOLATE WORKS, 116, LEMAN STREET.  
(See pages 17 and 50.)



# MAP OF LONDON.

SHOWING THE LONDON BRANCH, LEMAN STREET, E., AND THE PRINCIPAL RAILWAY STATIONS.







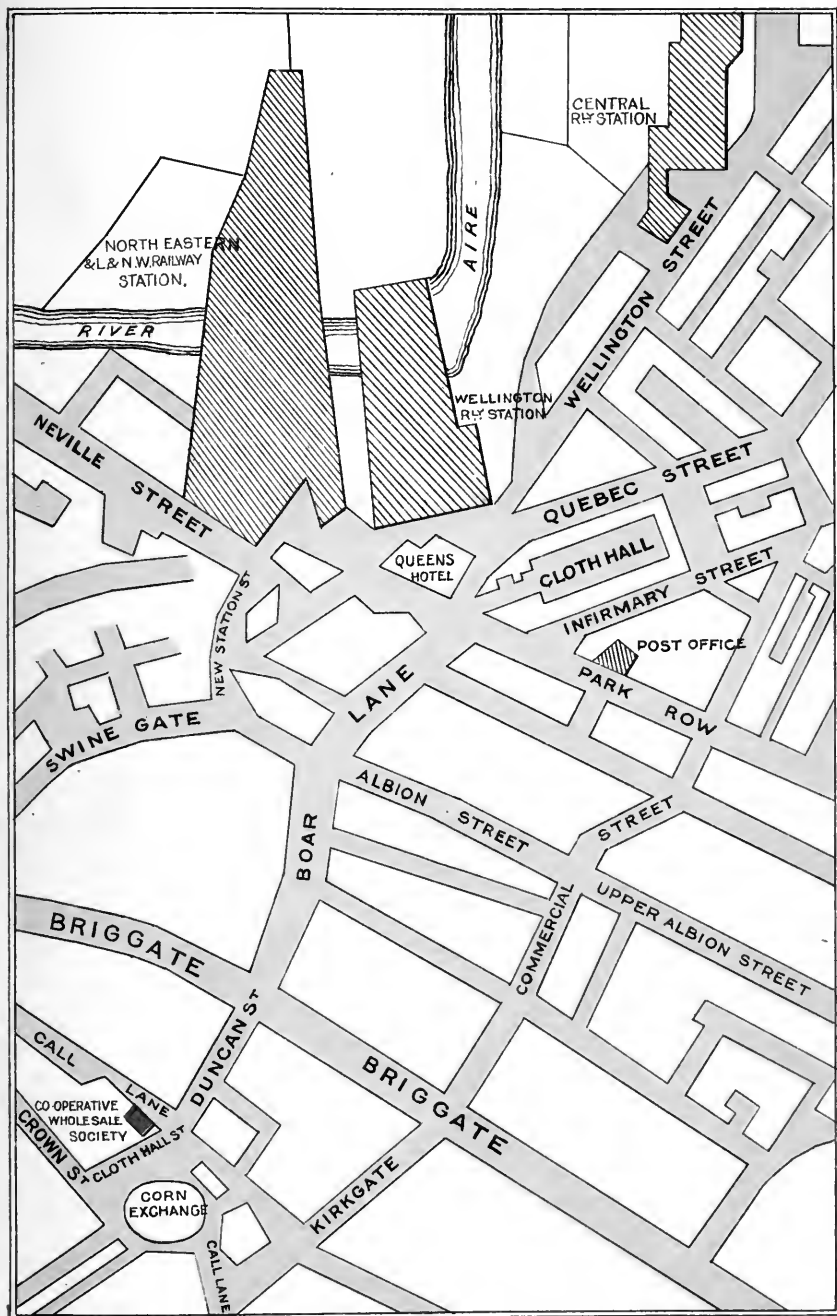


LEEDS, 33, CALL LANE.

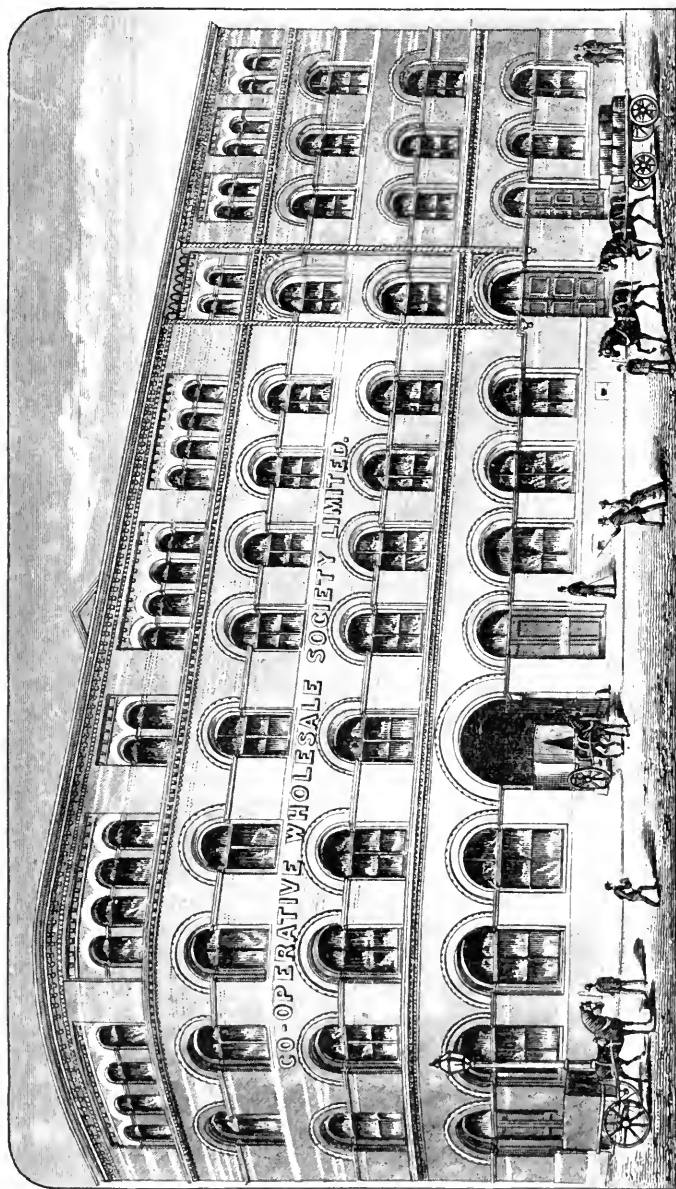


# PLAN OF LEEDS.

SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S SALE AND  
SAMPLE ROOM, FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.





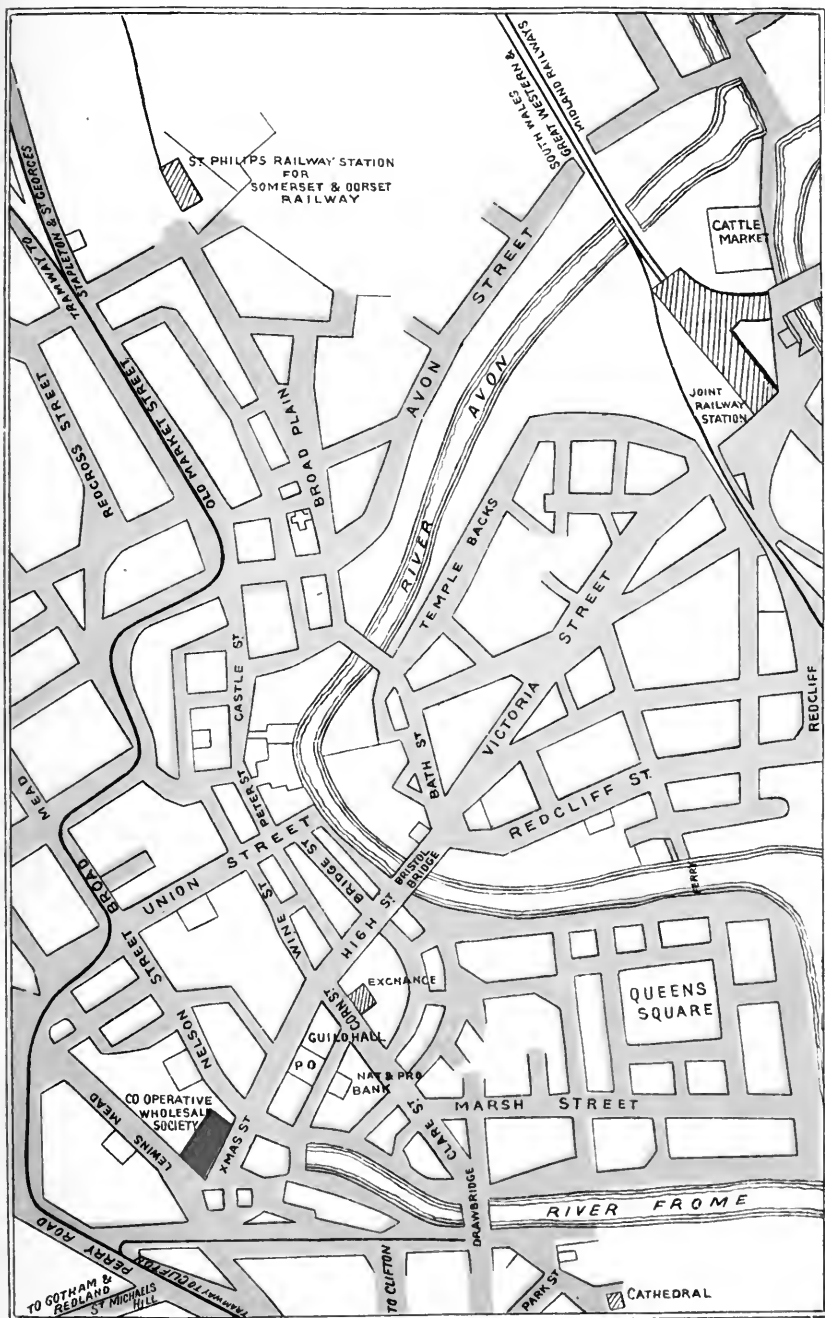


BRISTOL DEPOT, CHRISTMAS STREET.  
(See page 50.)



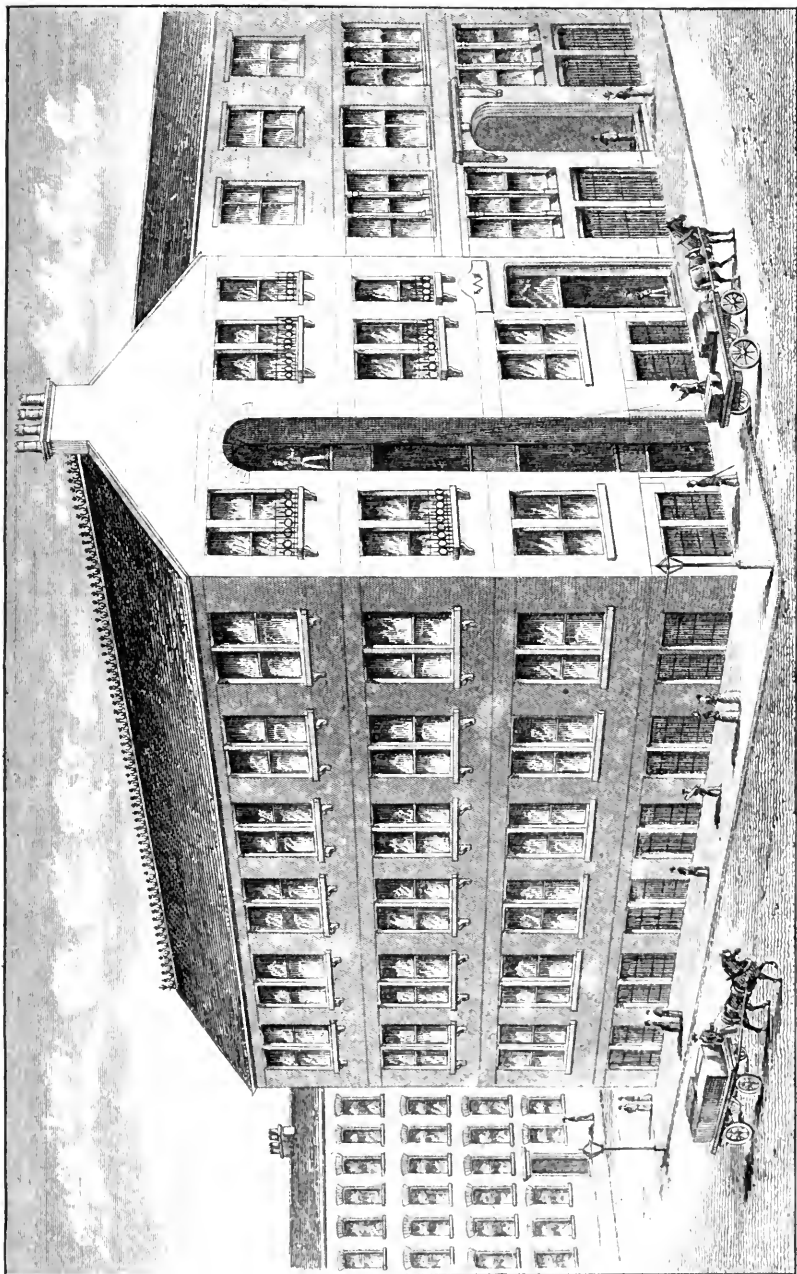
# PLAN OF BRISTOL.

SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S BRISTOL DEPOT, FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.



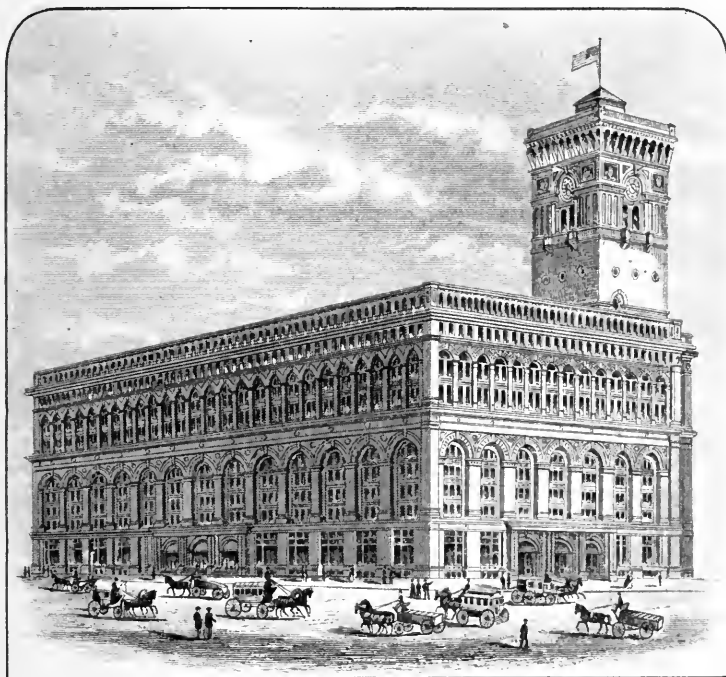






LIVERPOOL GREEN FRUIT WAREHOUSE, CUMBERLAND STREET.



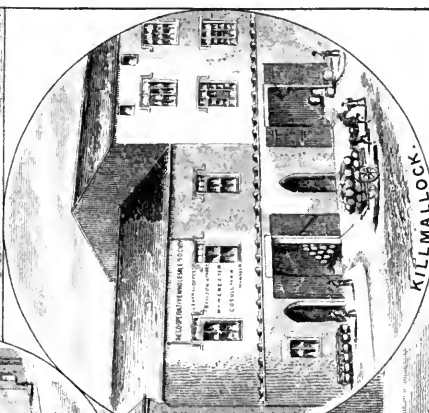
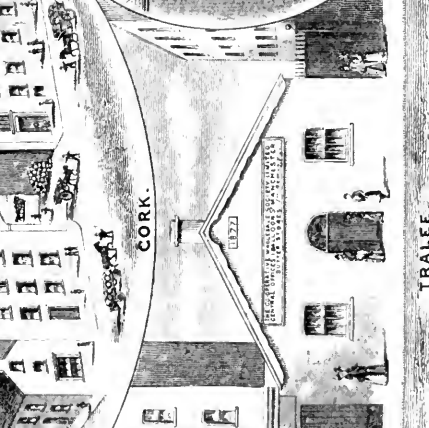
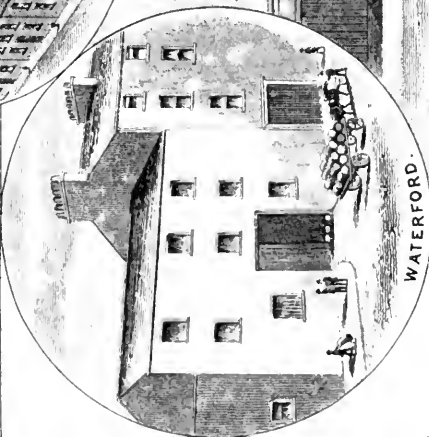
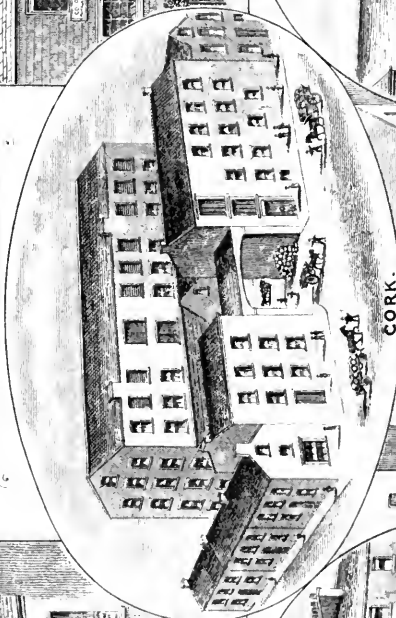
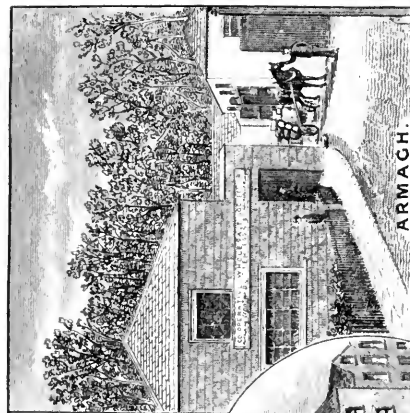
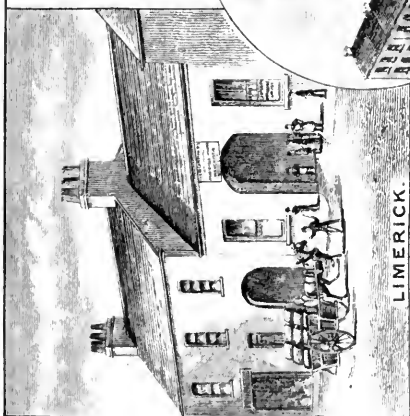


NEW YORK PRODUCE EXCHANGE, BROADWAY, NEW YORK,  
IN WHICH THE SOCIETY'S OFFICES ARE SITUATE.



THE  
CO-OPERATIVE WHOLESALE SOCIETY.  
LIMITED.

BRANCHES IN IRELAND.



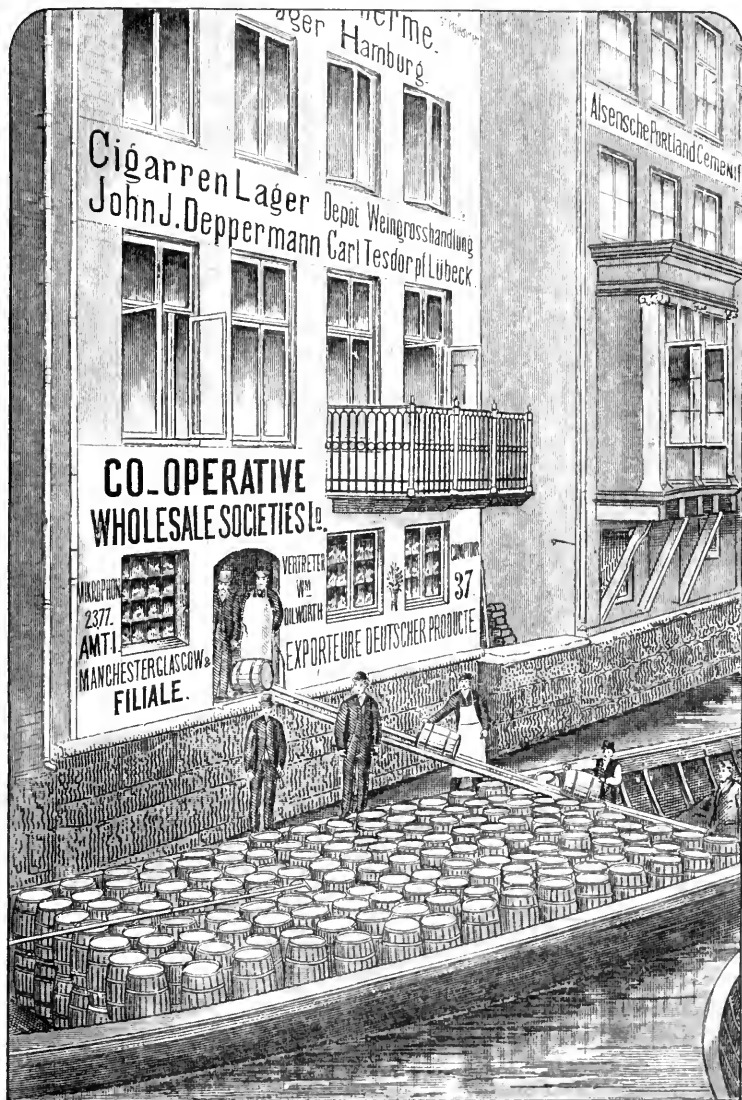




COPENHAGEN BRANCH,  
HAVNEGADE, 41.

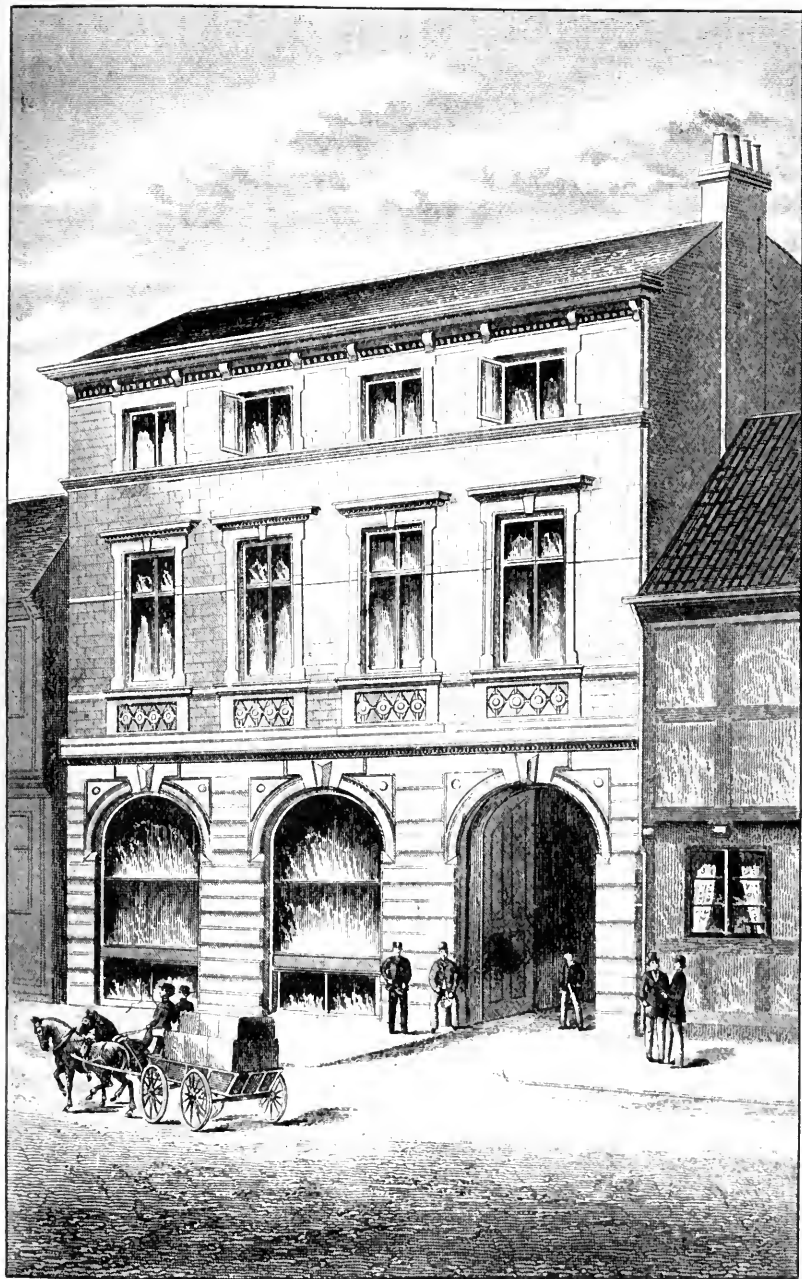






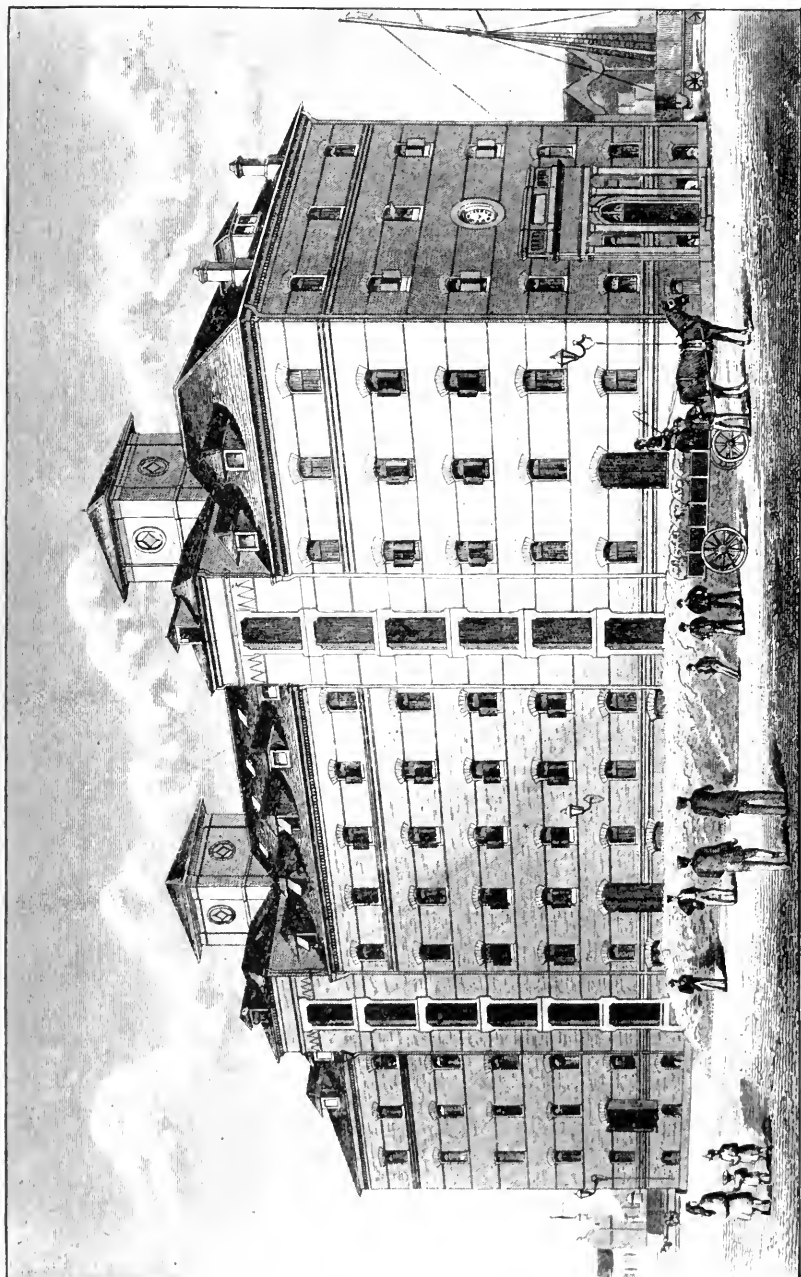
HAMBURG BRANCH.  
CATHARINEN STREET, No. 37.





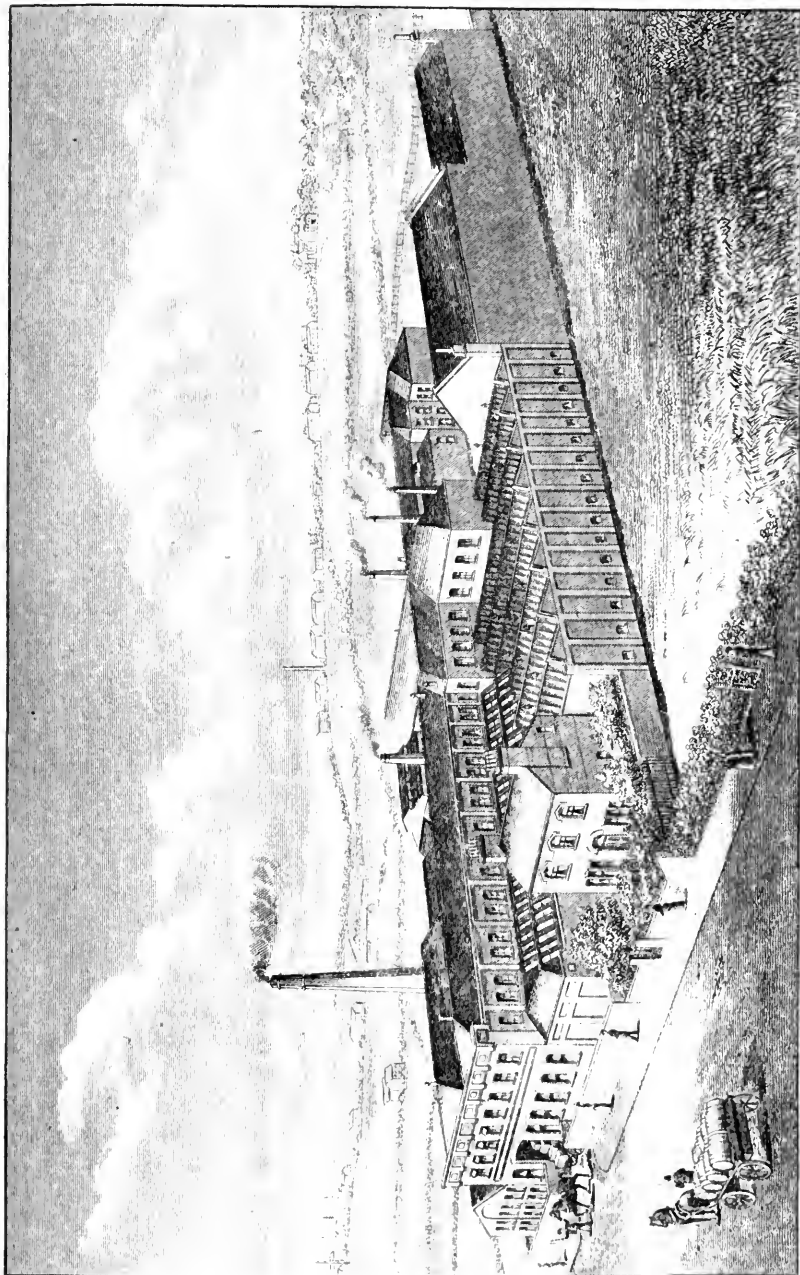
AARHUS BRANCH.  
DENMARK.



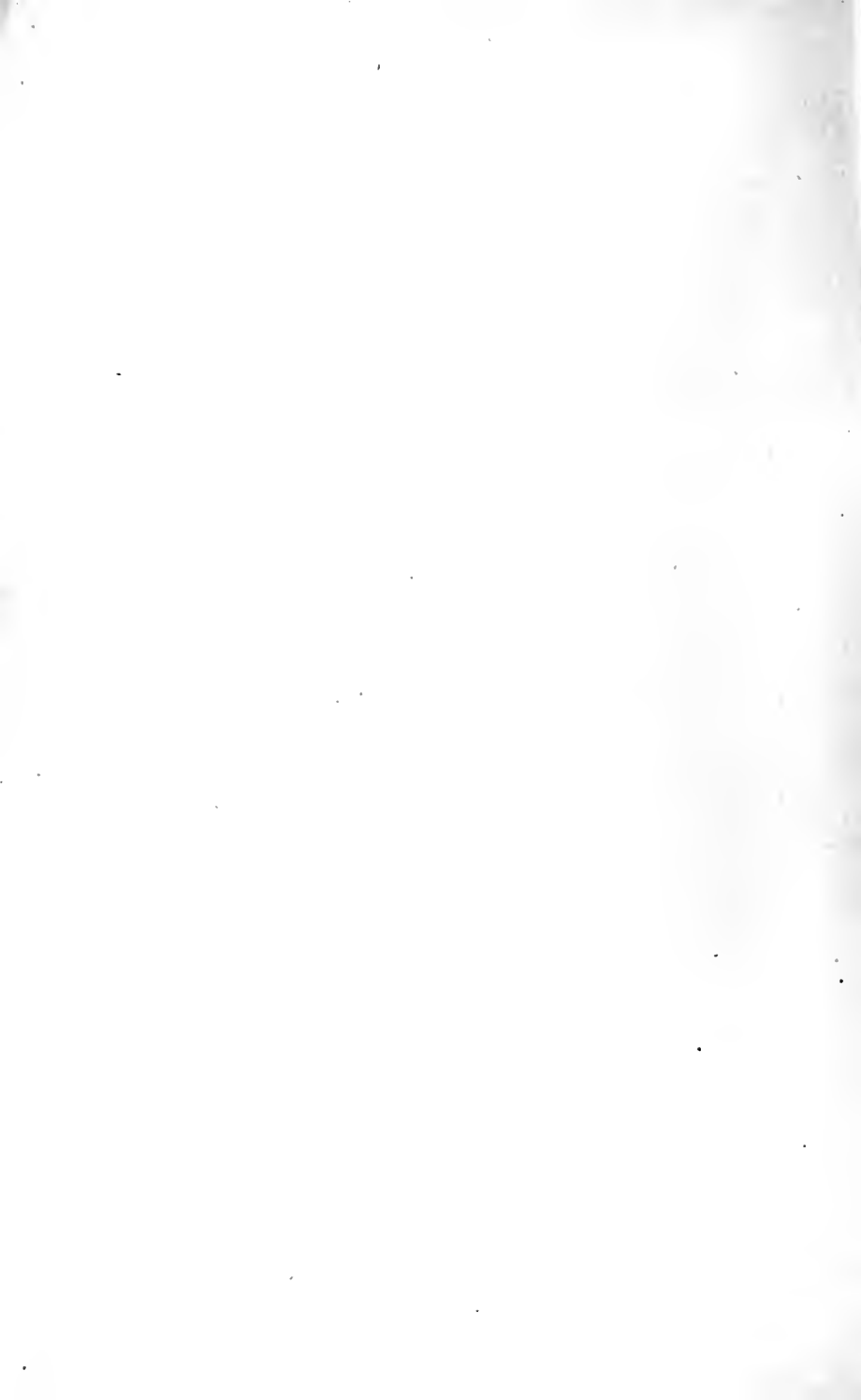


BUTTER CELLAR, AARHUS,  
DENMARK.

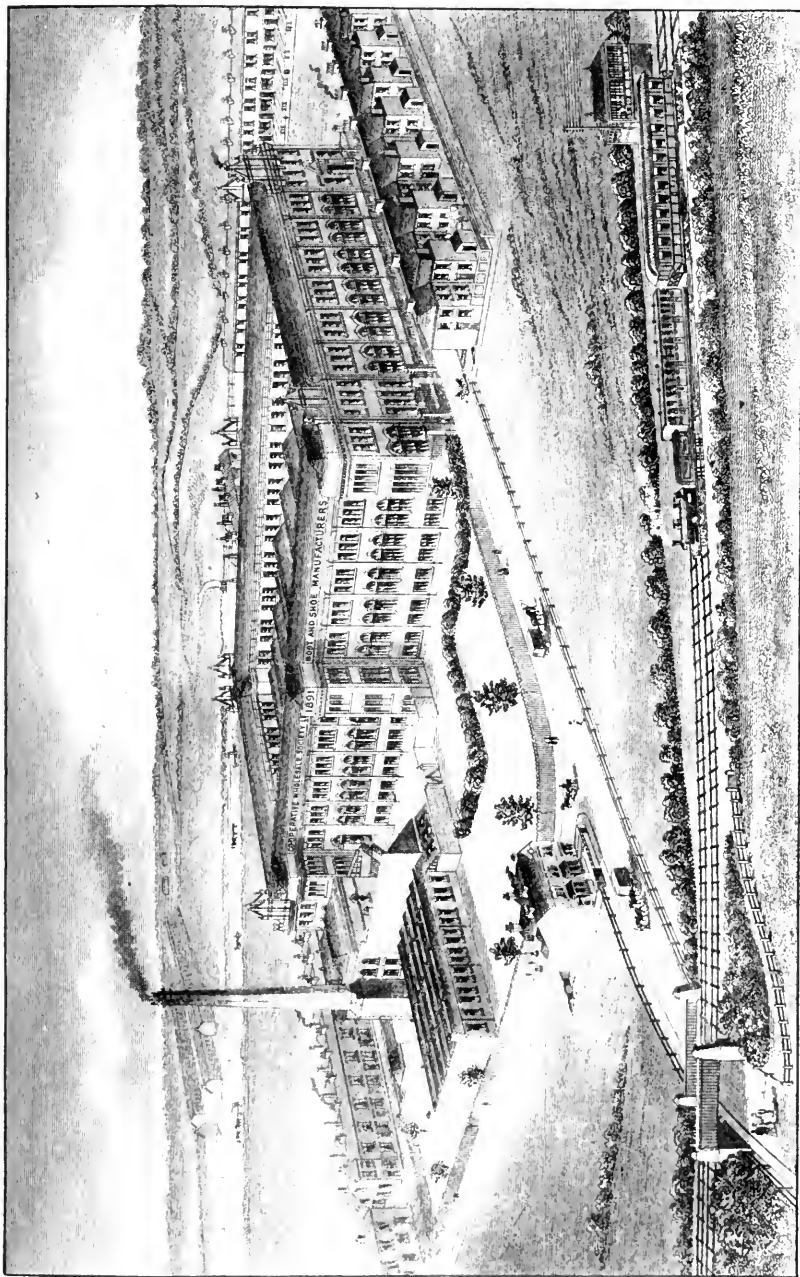




CRUMPSALL BISCUIT AND SWEETS, &c., WORKS.  
(See pages 27, 50, 76, and 96.)

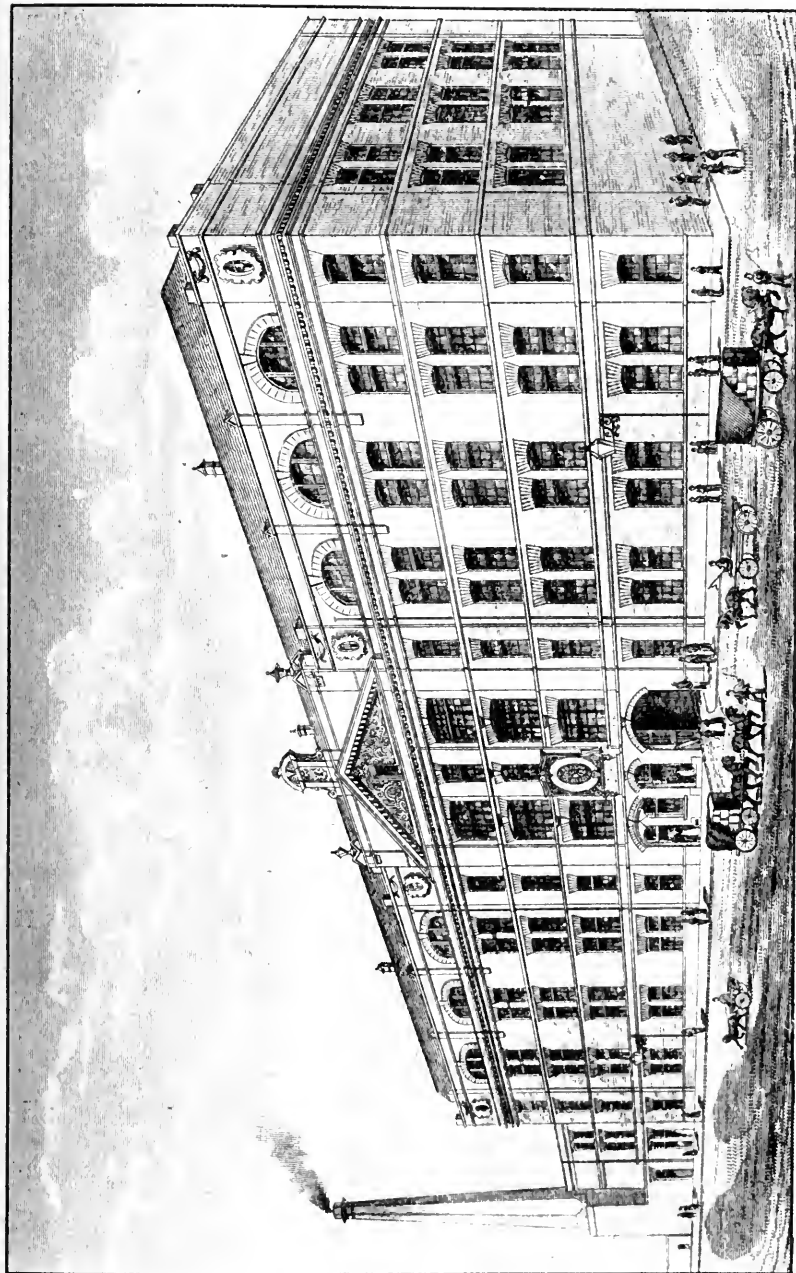






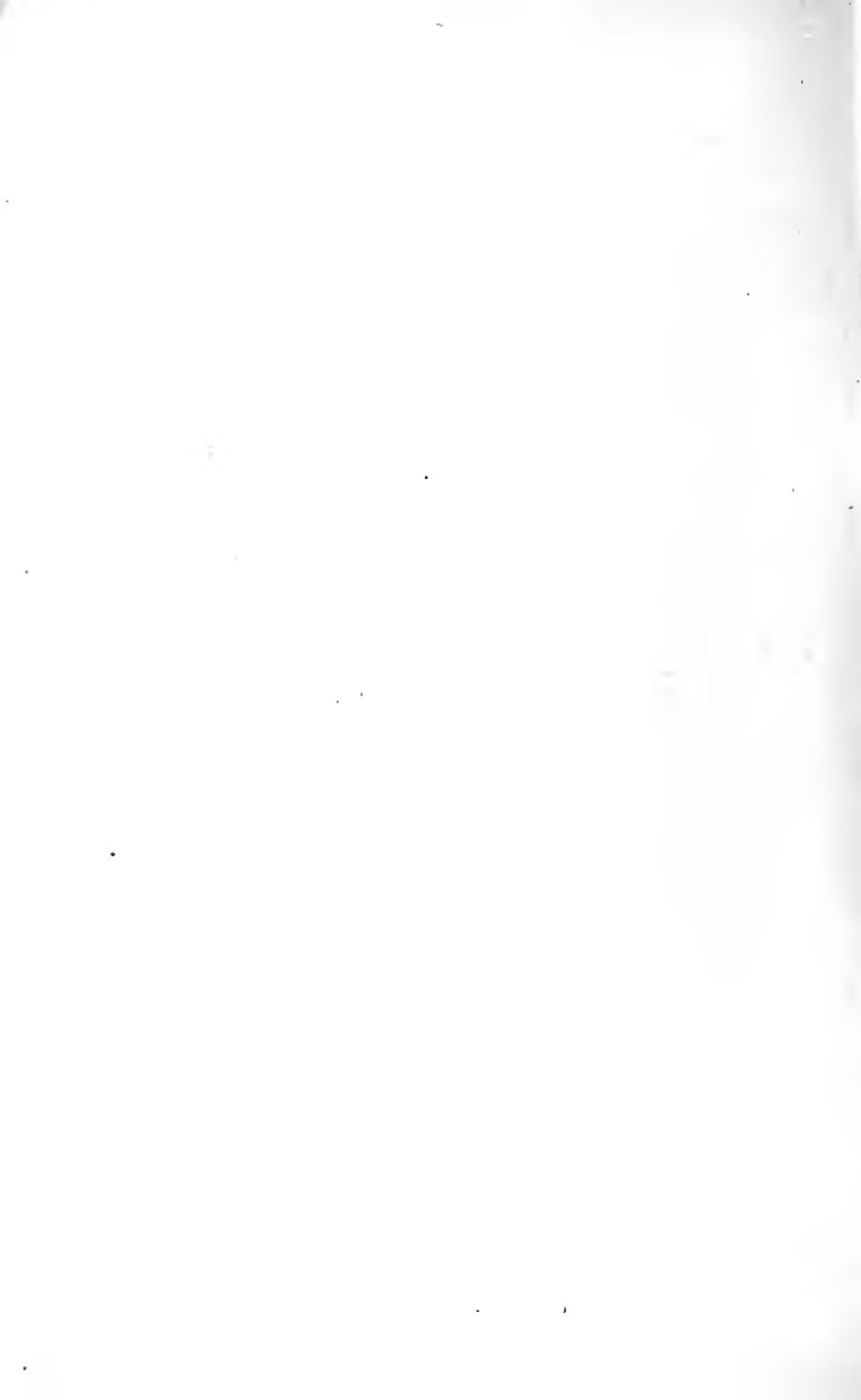
WHEAT SHEAF BOOT AND SHOE WORKS, KNIGHTON FIELDS, LEICESTER.  
(See pages 29, 50, 78, and 97.)





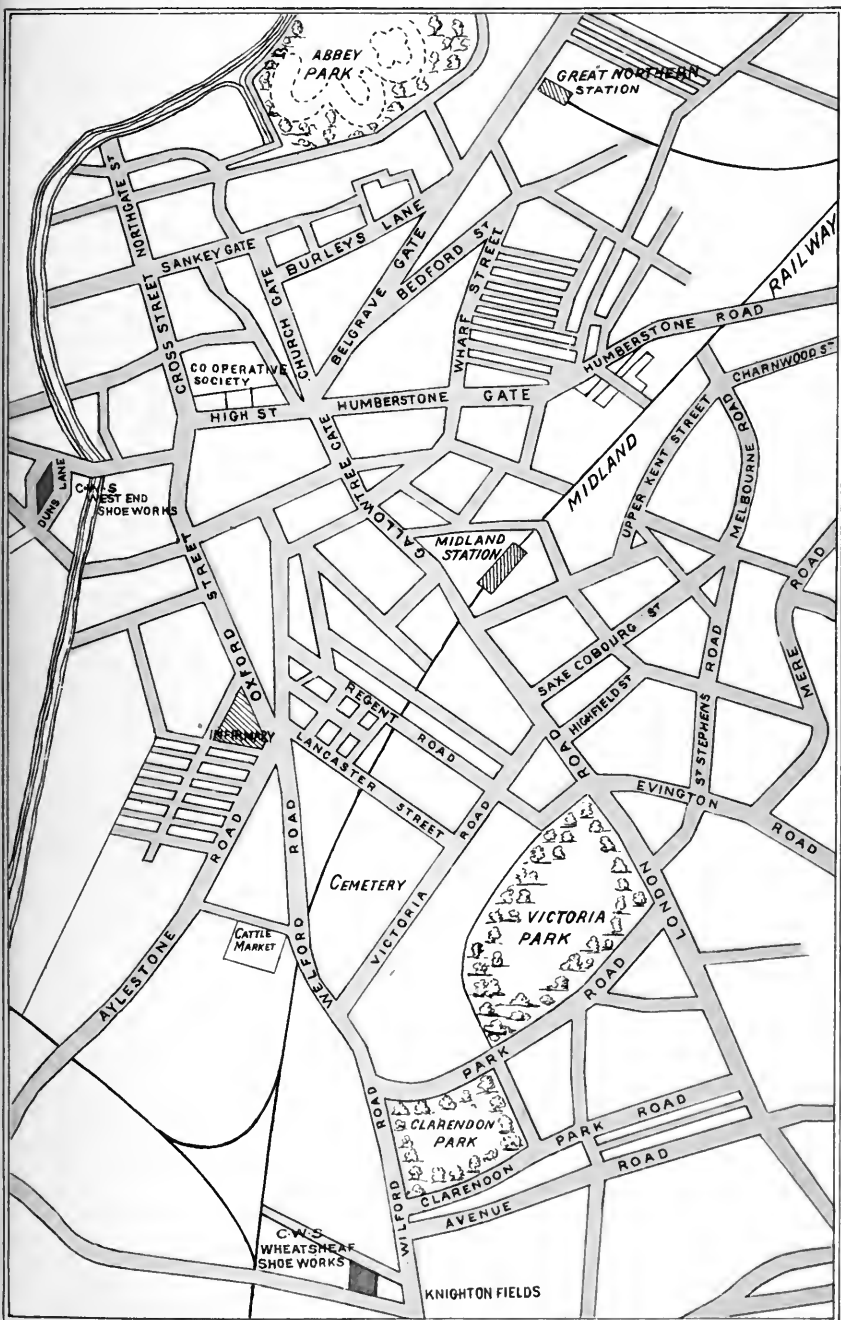
LEICESTER BOOT AND SHOE WORKS, DUNS LANE.

(See pages 50, 78, and 97.)

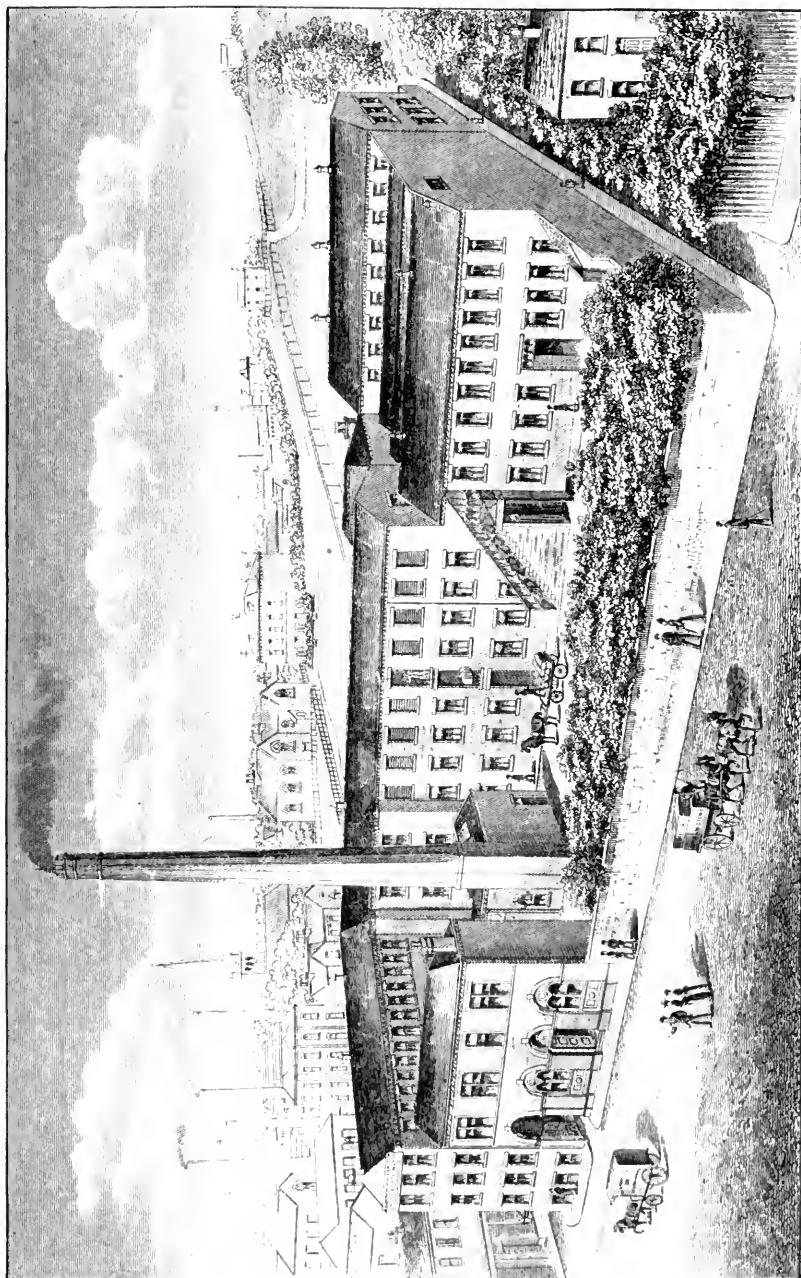


# PLAN OF LEICESTER.

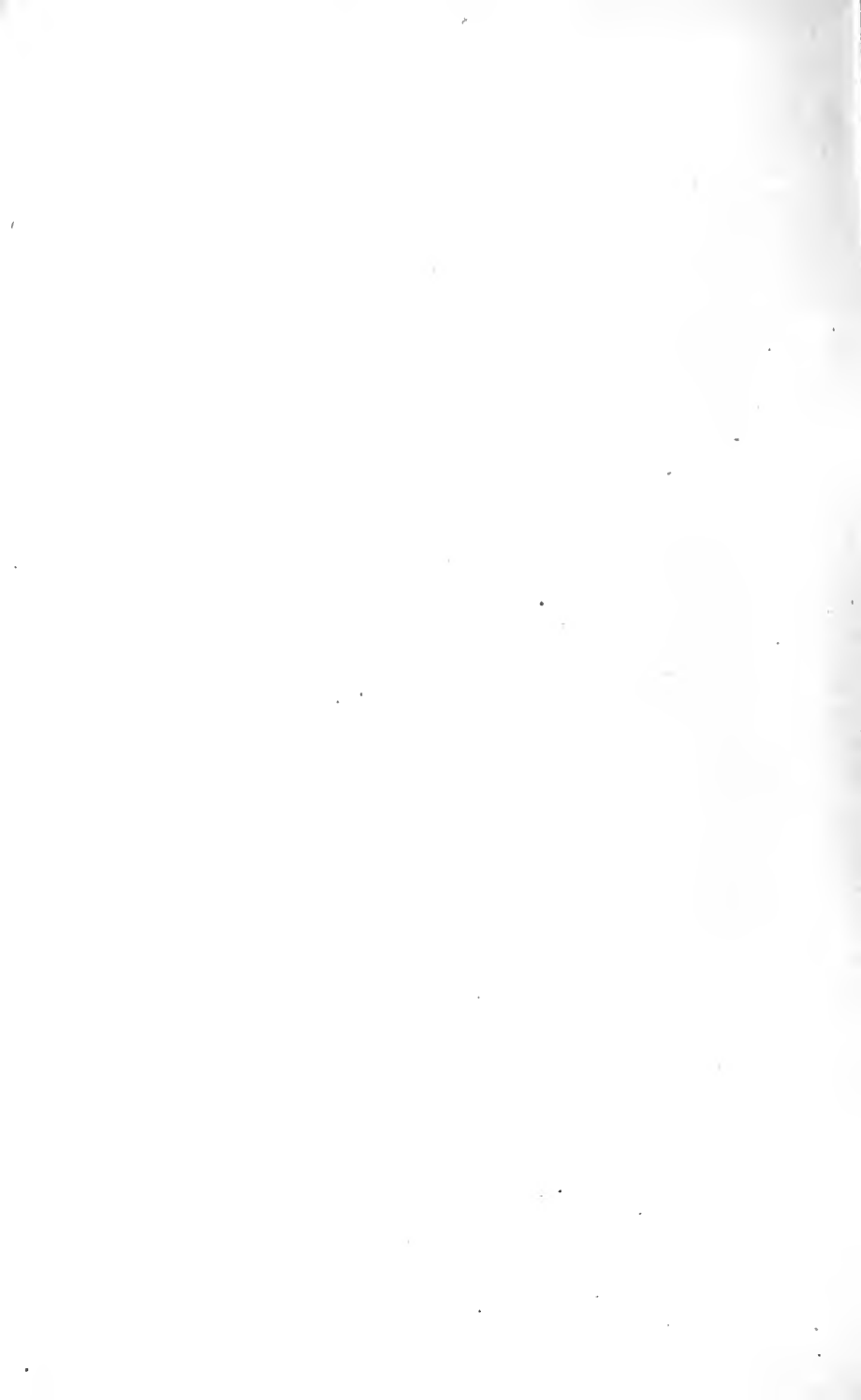
SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S BOOT AND SHOE WORKS, FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.



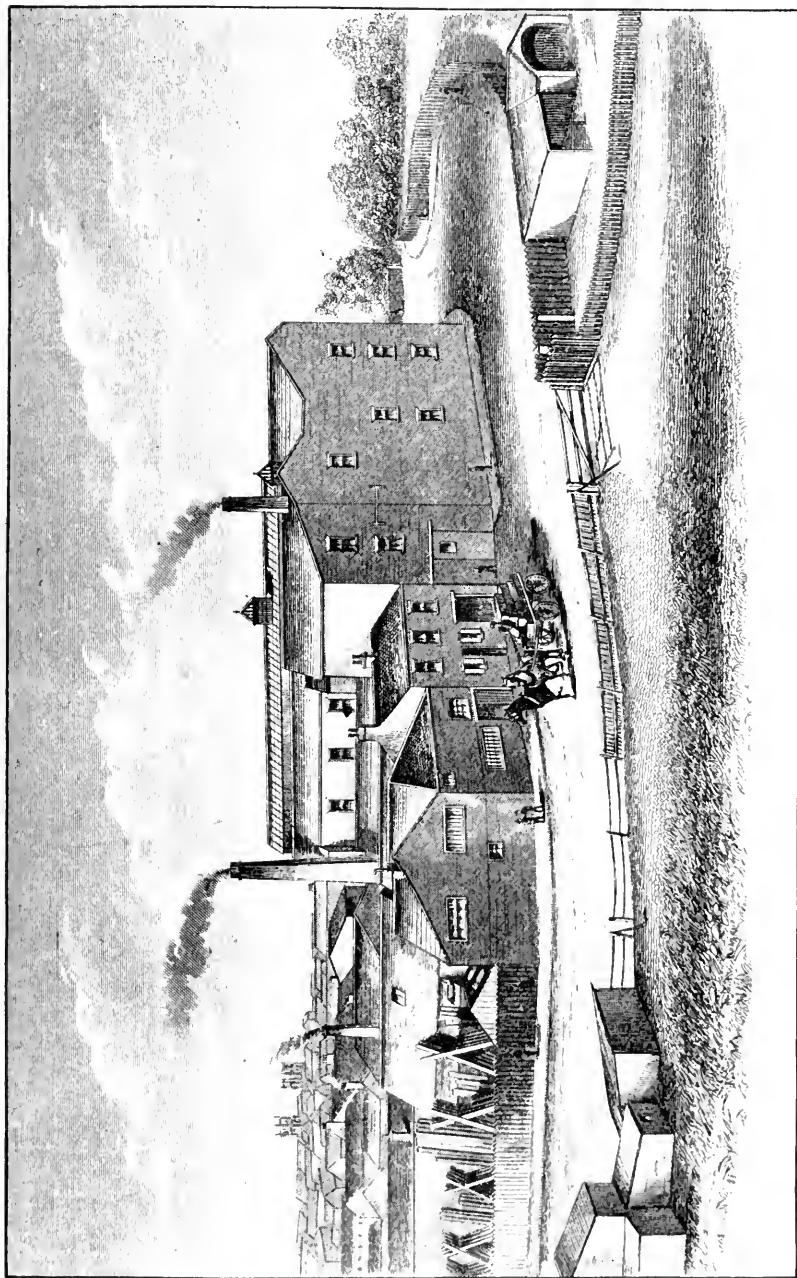




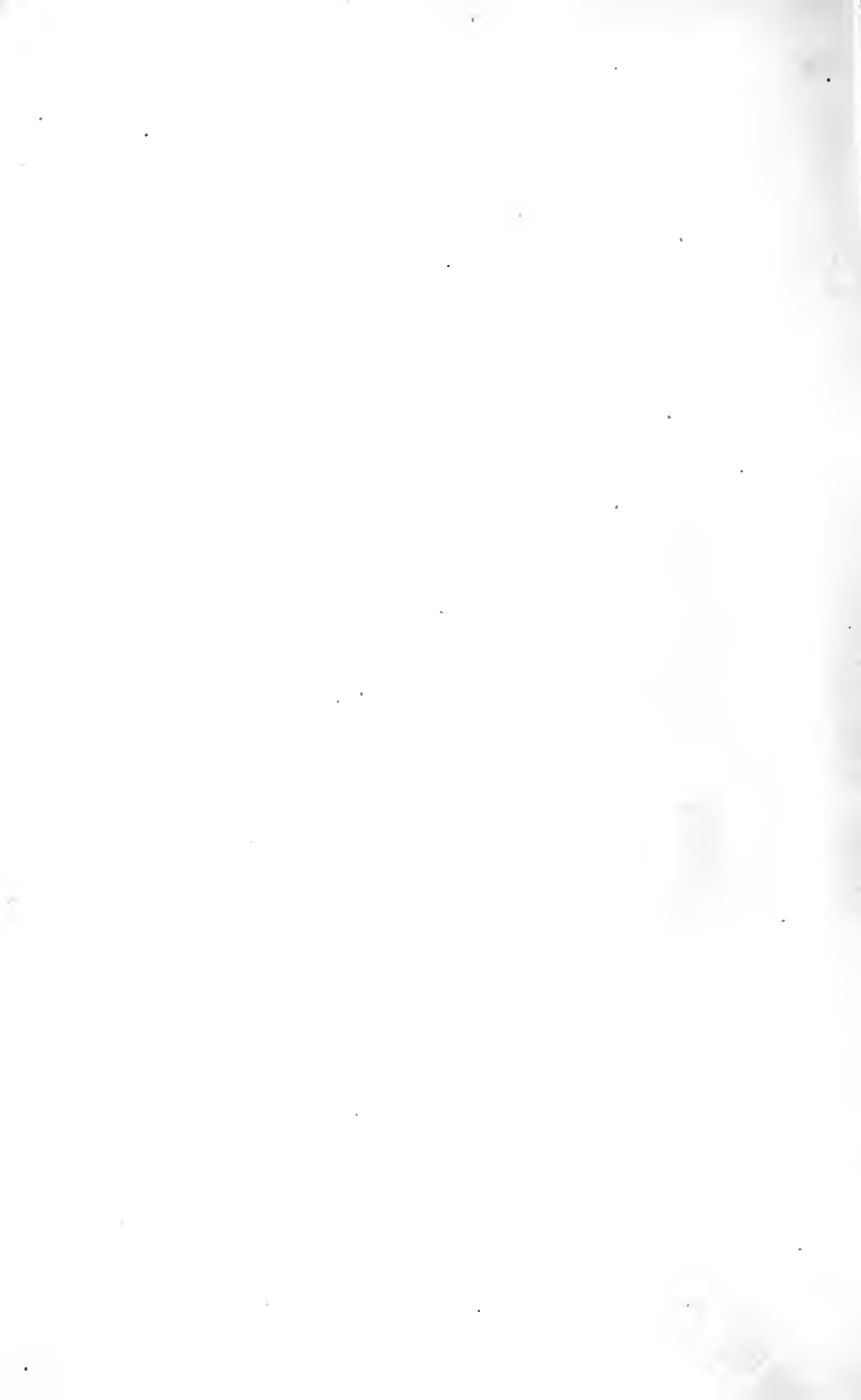
HECKMONDWIKE BOOT AND SHOE AND CURRYING WORKS.  
(See pages 33, 50, 73, and 98.)

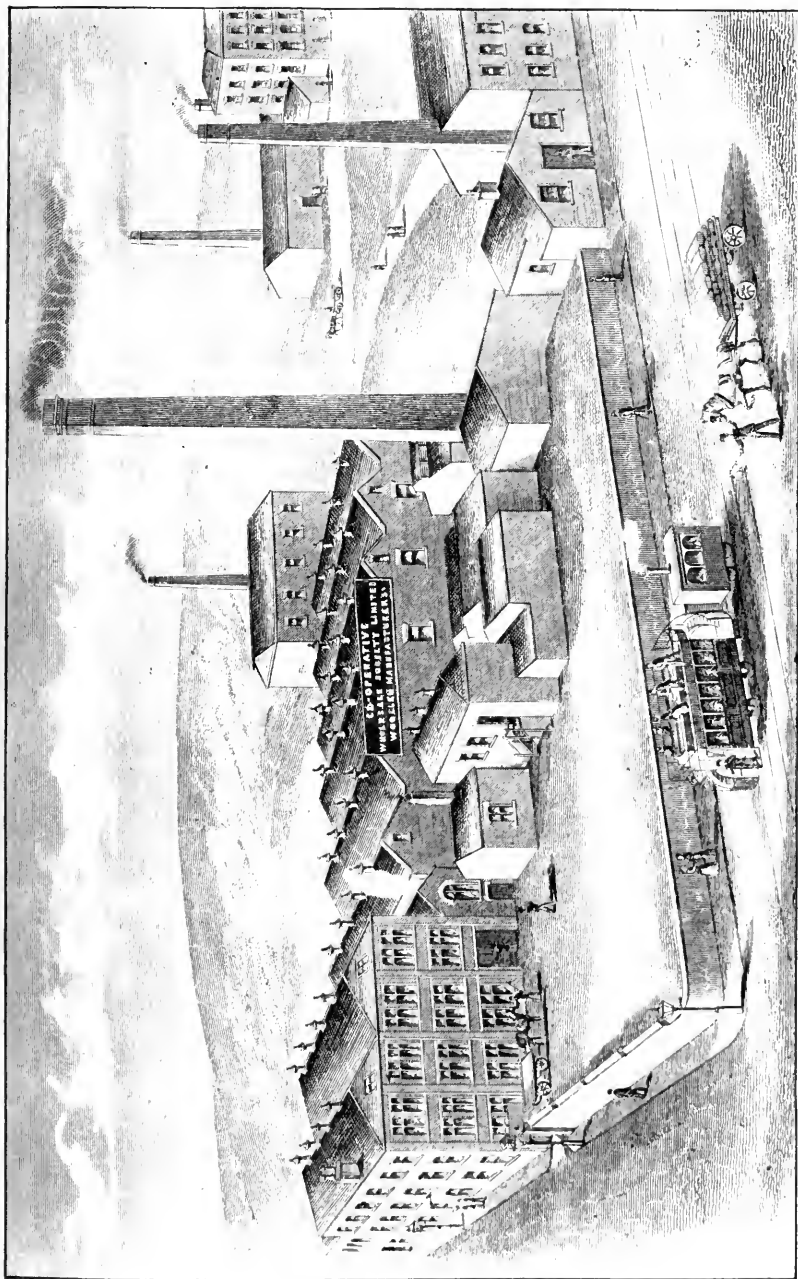






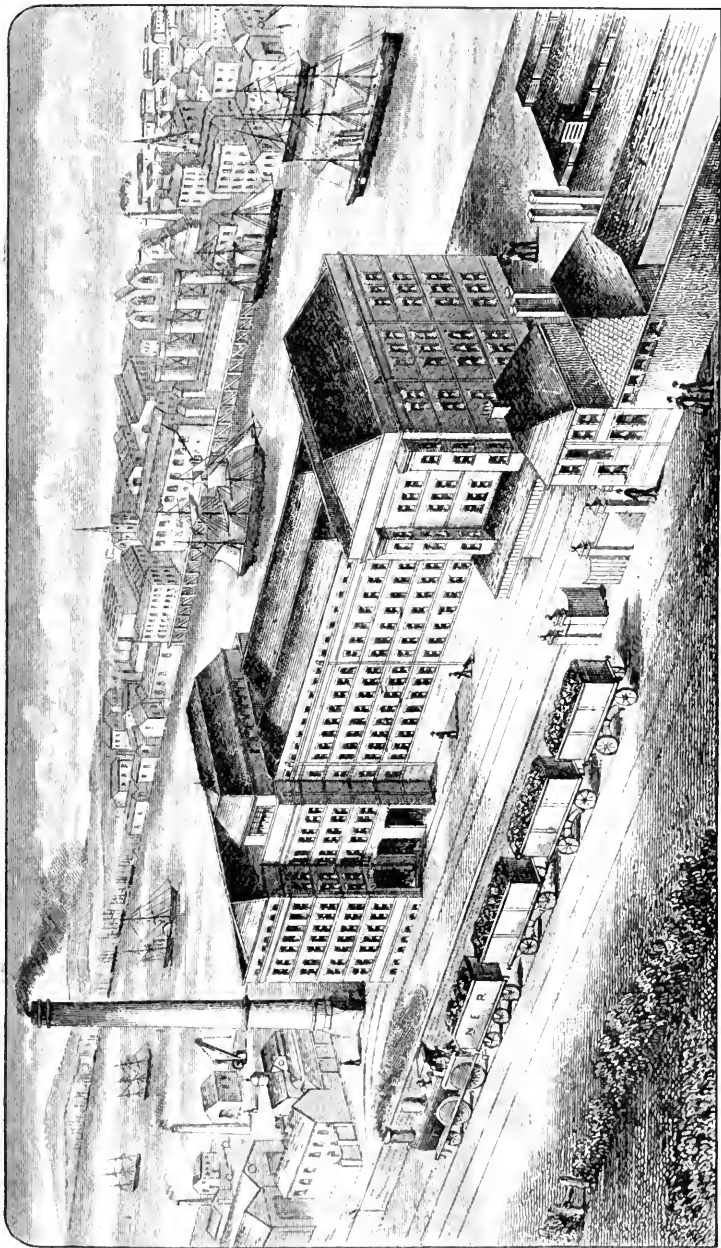
DURHAM SOAP WORKS.  
(See pages 34, 50, 84, and 99.)





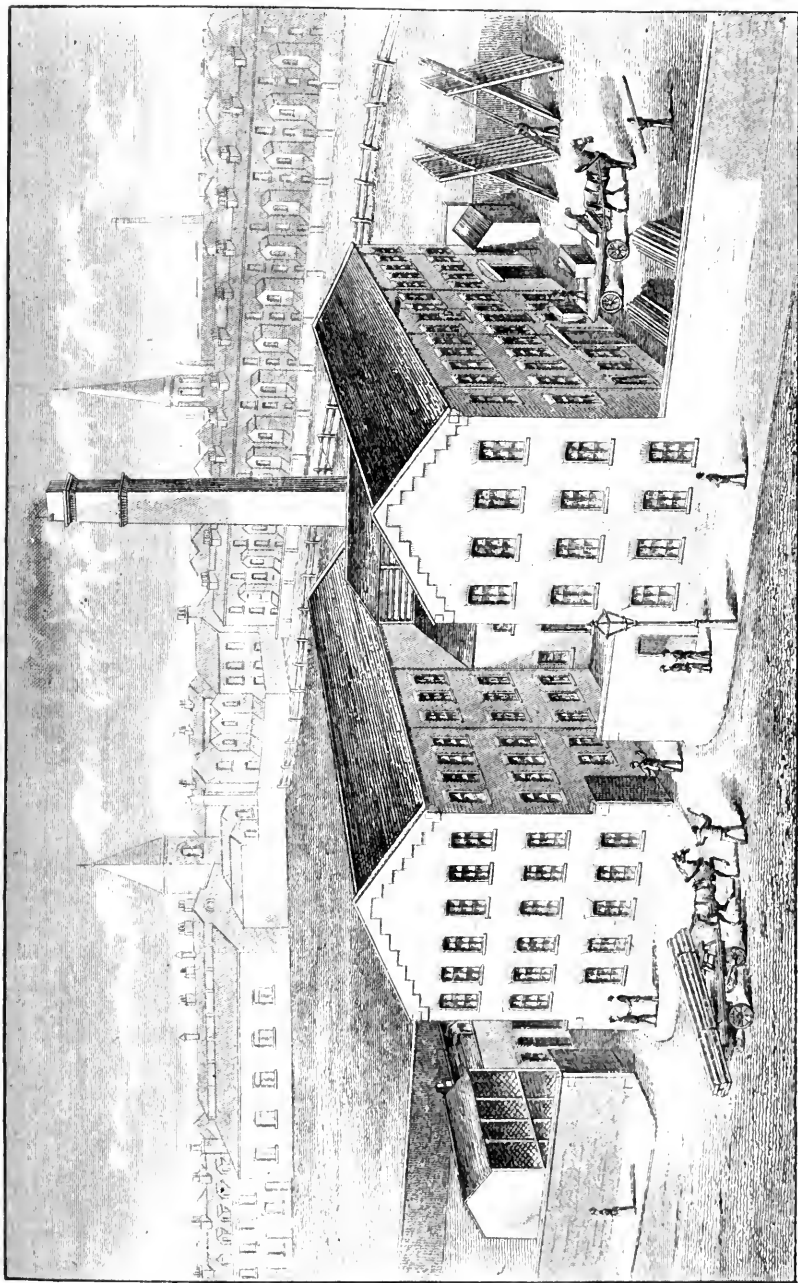
LIVINGSTONE MILL, BATLEY.—WOOLLEN CLOTH WORKS.  
(See pages 85, 50, 87, and 101.)





DUNSTON CORN MILL.  
(See pages 50, 86, and 100.)



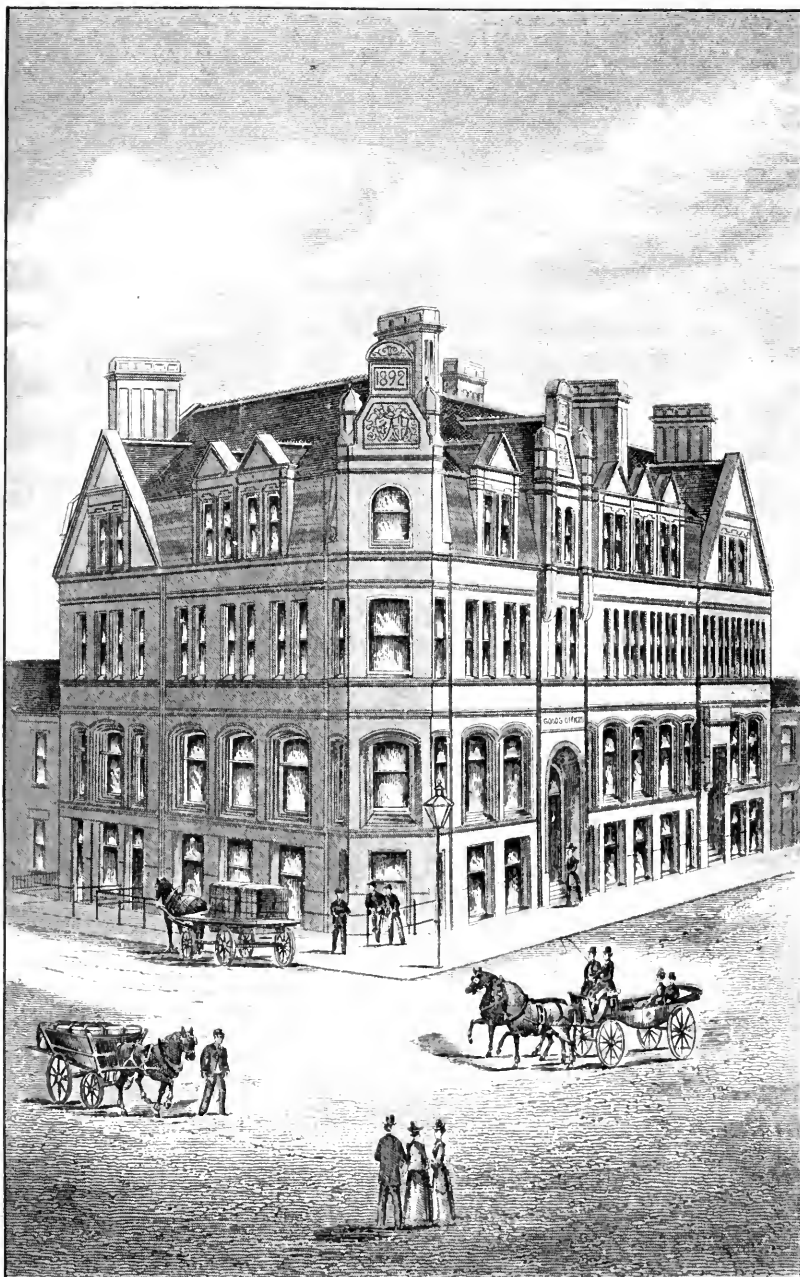


FURNITURE FACTORY, BROUGHTON, NEAR MANCHESTER.

(See pages 25 and 50.)

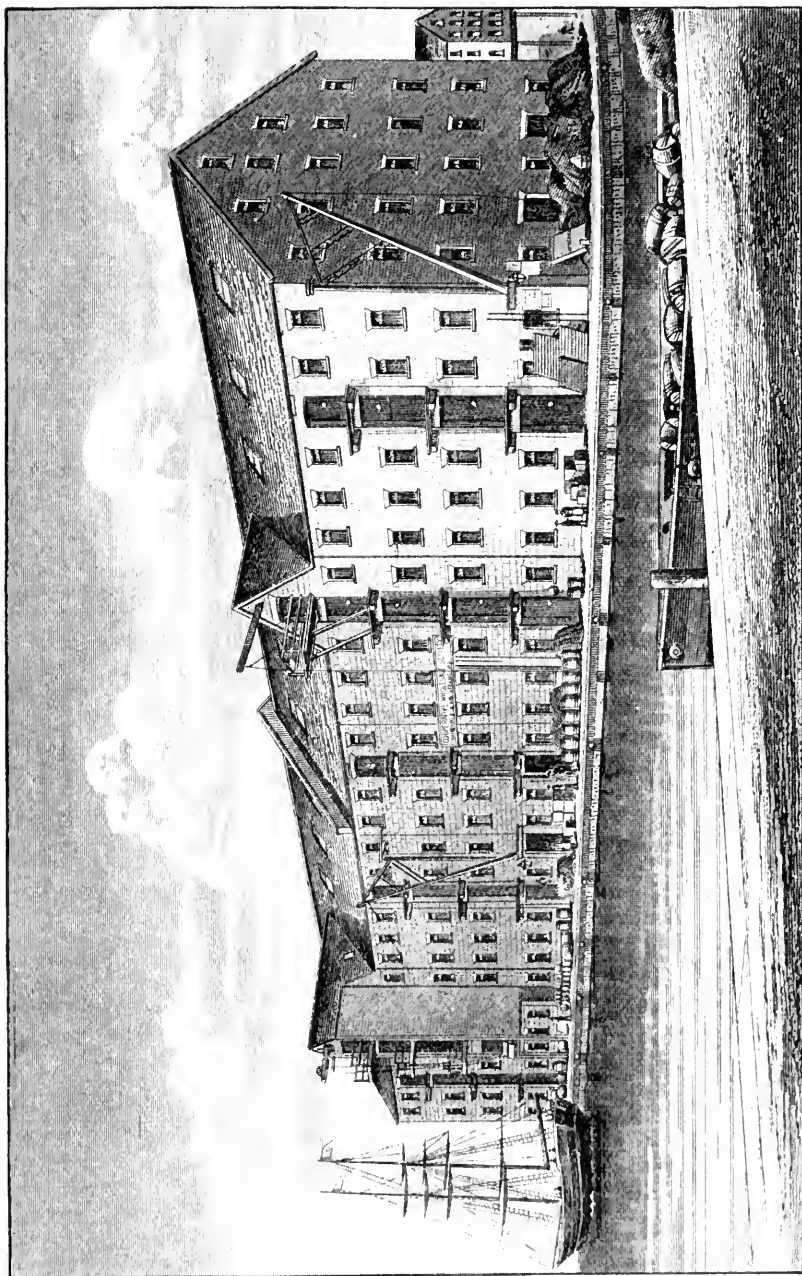






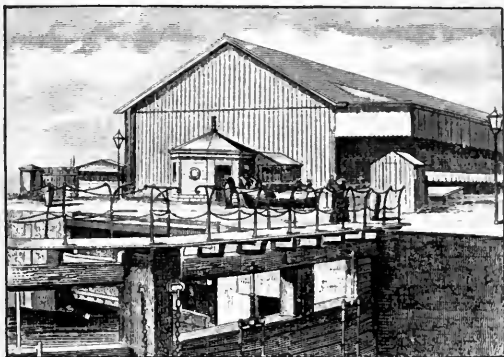
GOOLE OFFICES, STANHOPE STREET.



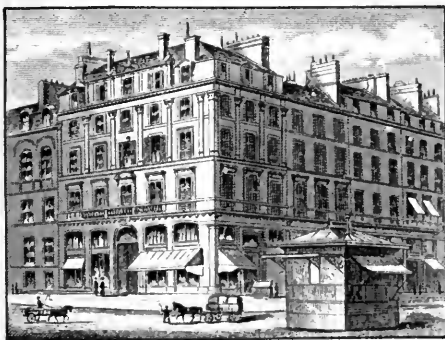


GOOLE WAREHOUSE.



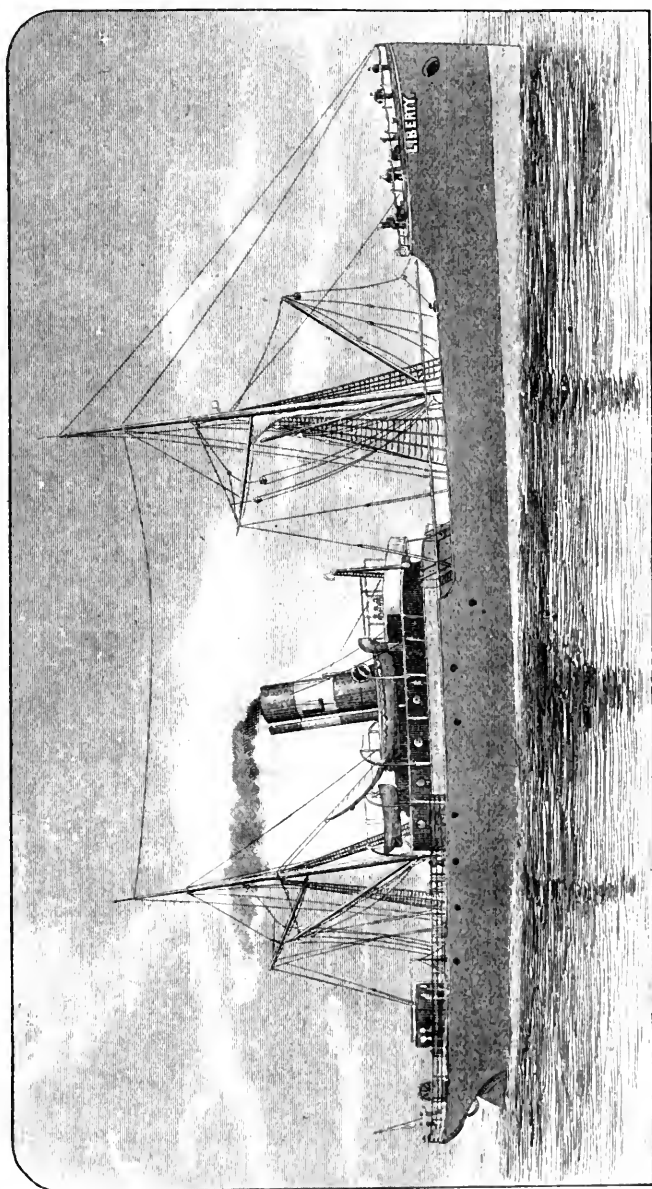


GARSTON OFFICES,  
WEST SIDE, NEW DOCK, GARSTON, NEAR LIVERPOOL.



ROUEN OFFICES,  
2, RUE JEANNE D'ARC, ROUEN, FRANCE.

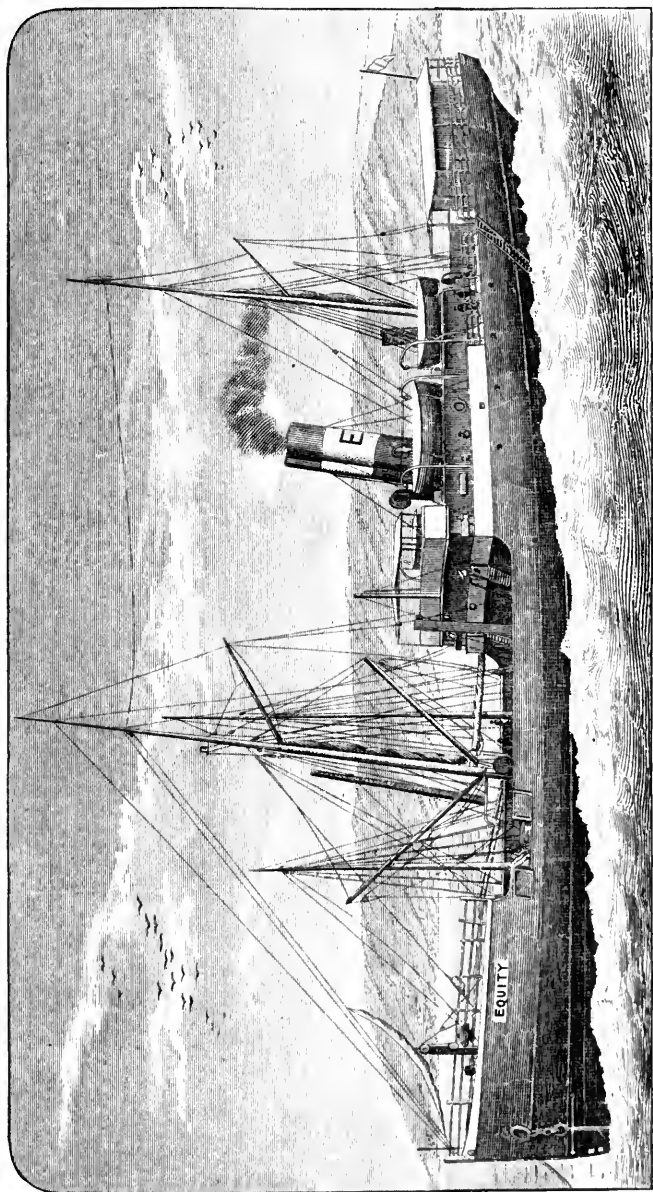




S.S. "LIBERTY," GOCLE-HAMBURG LINE.  
(See pages 40 and 50.)

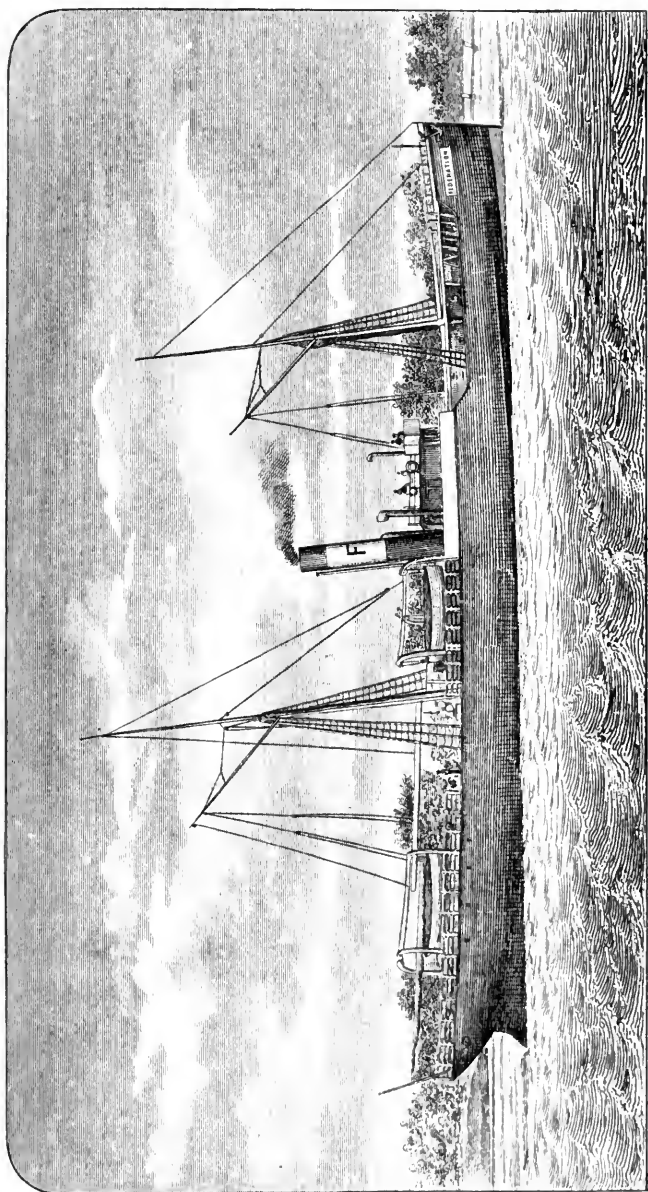






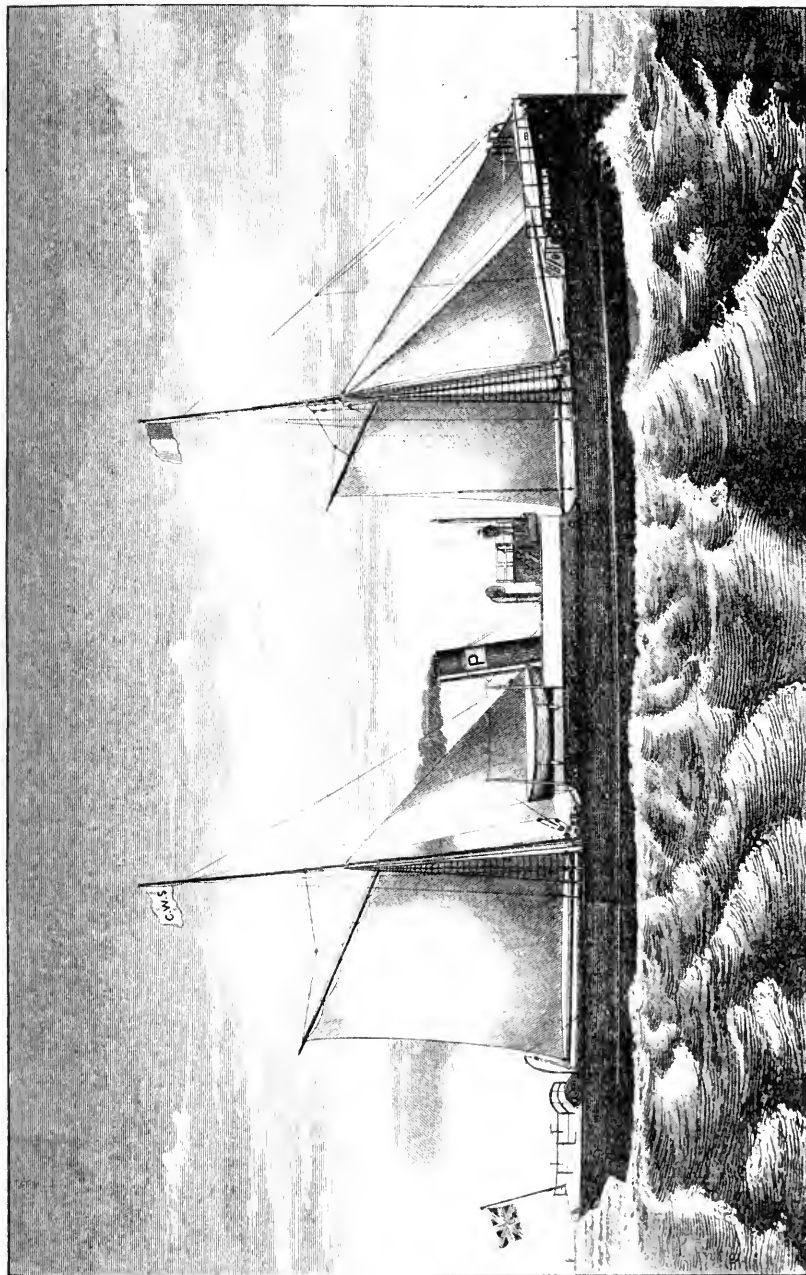
S.S. "EQUITY." GOOLE-HAMBURG LINE.  
(See pages 40 and 50.)



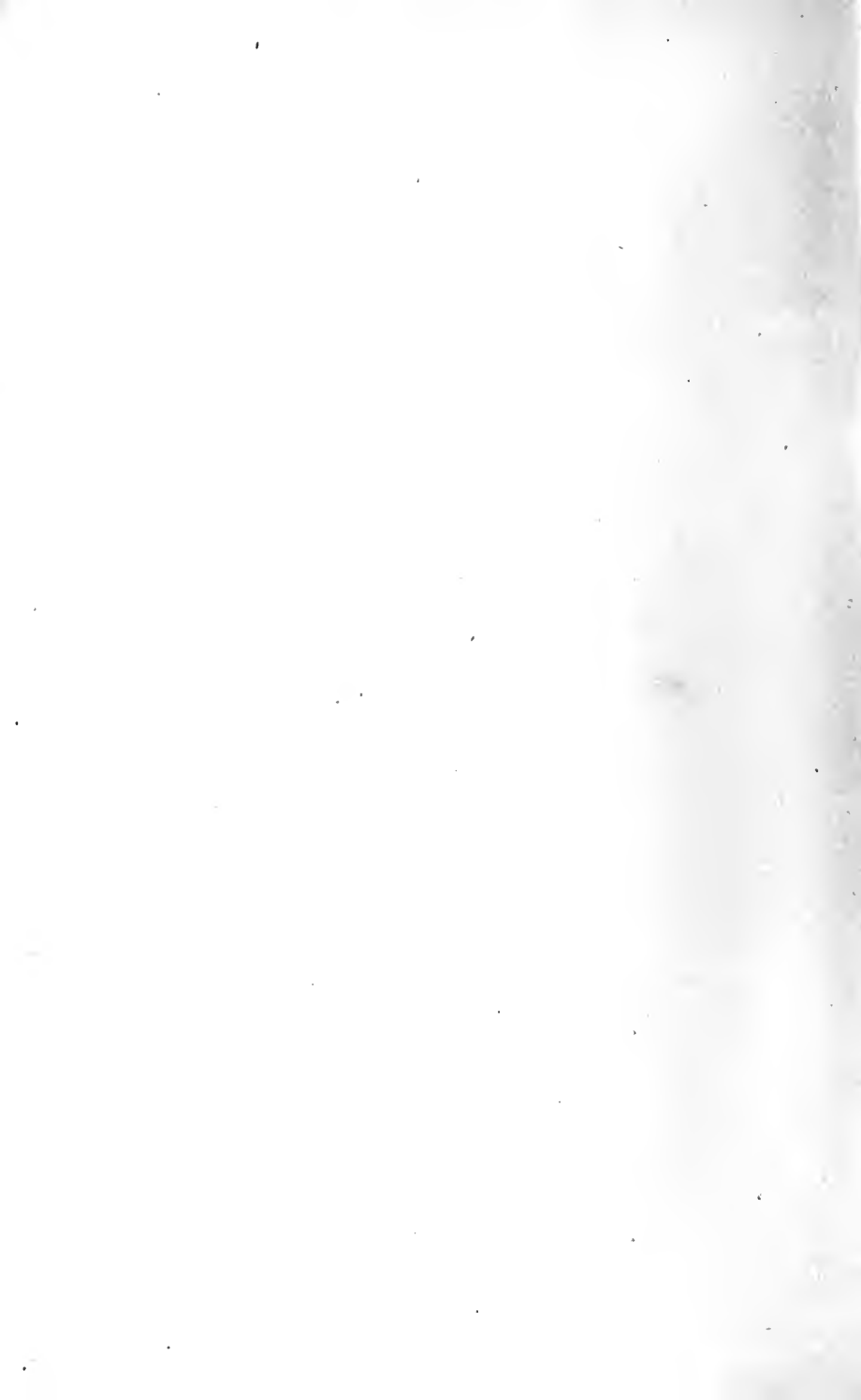


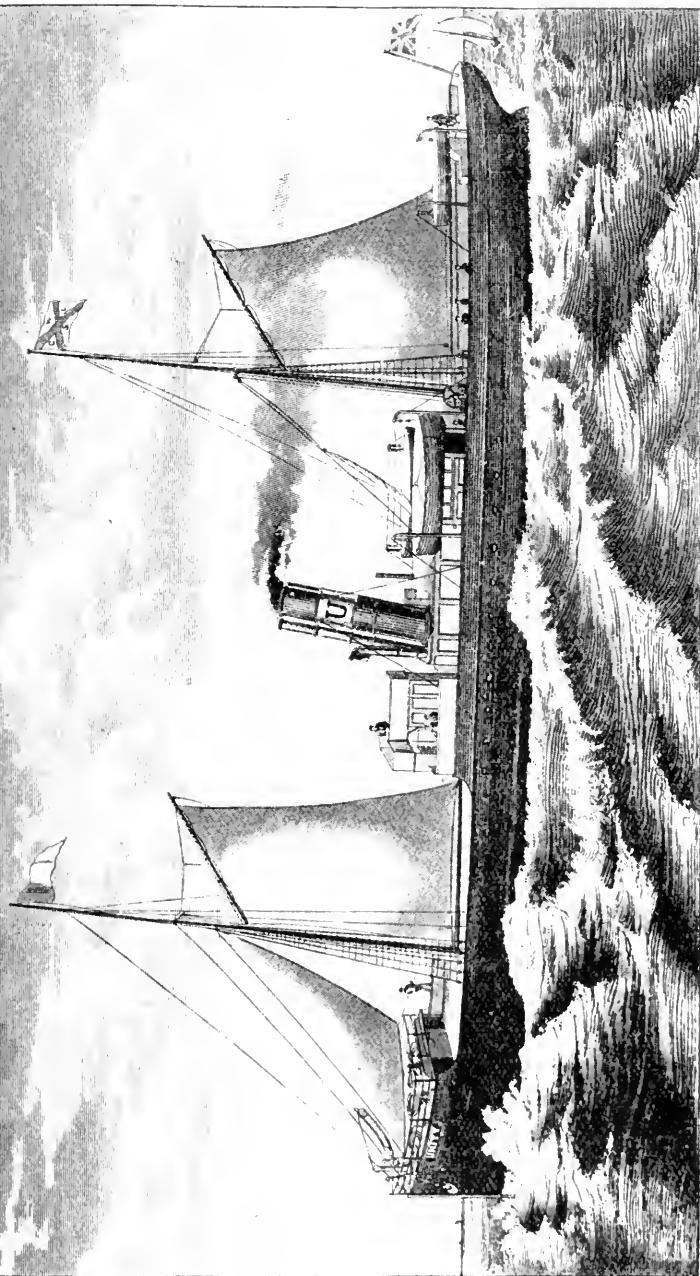
S.S. "FEDERATION." GOOLE-HAMBURG LINE.  
(See pages 40 and 50.)



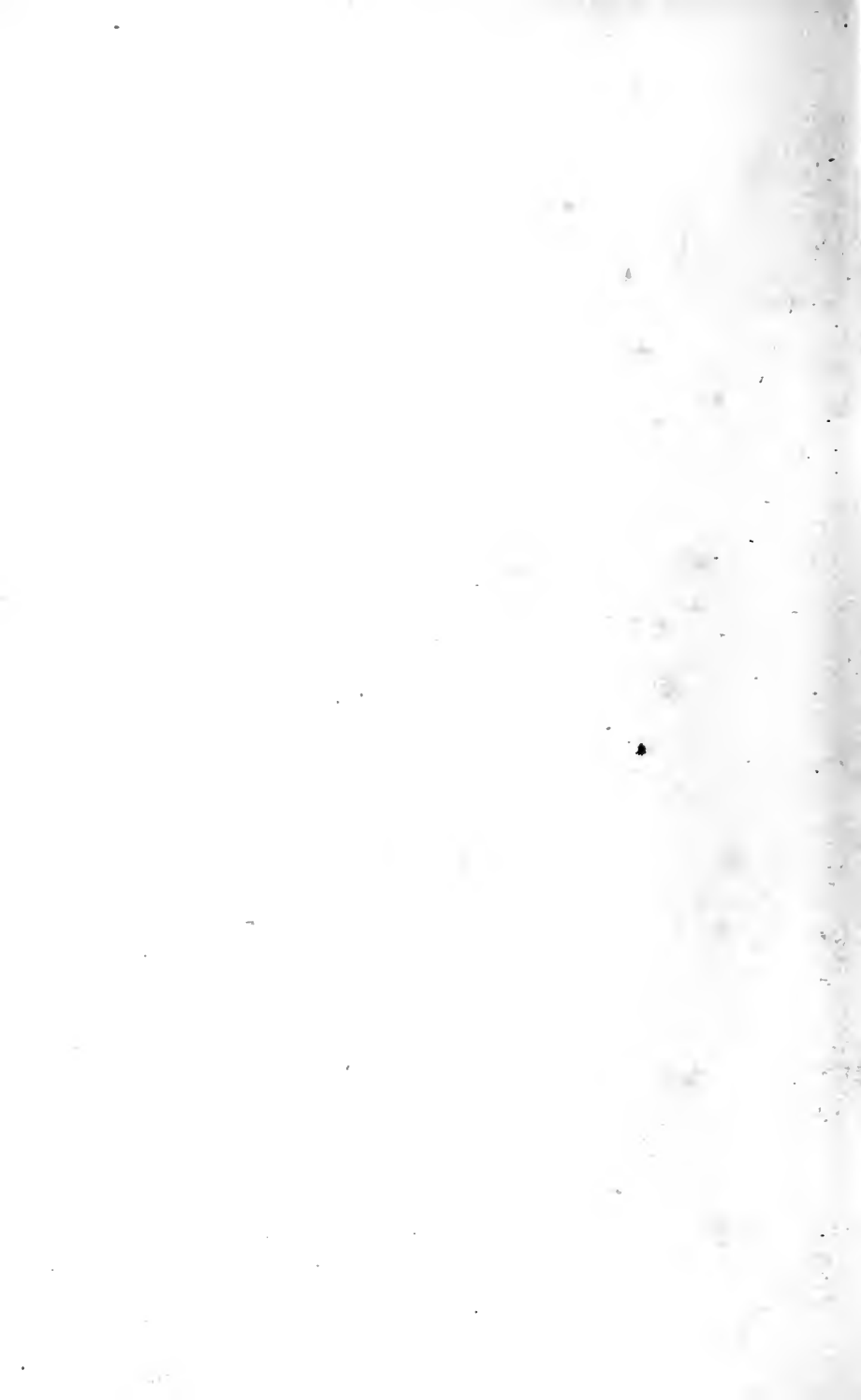


S.S. "PIONEER," GOOLE-CALAIS LINE.  
(See pages 39 and 50.)

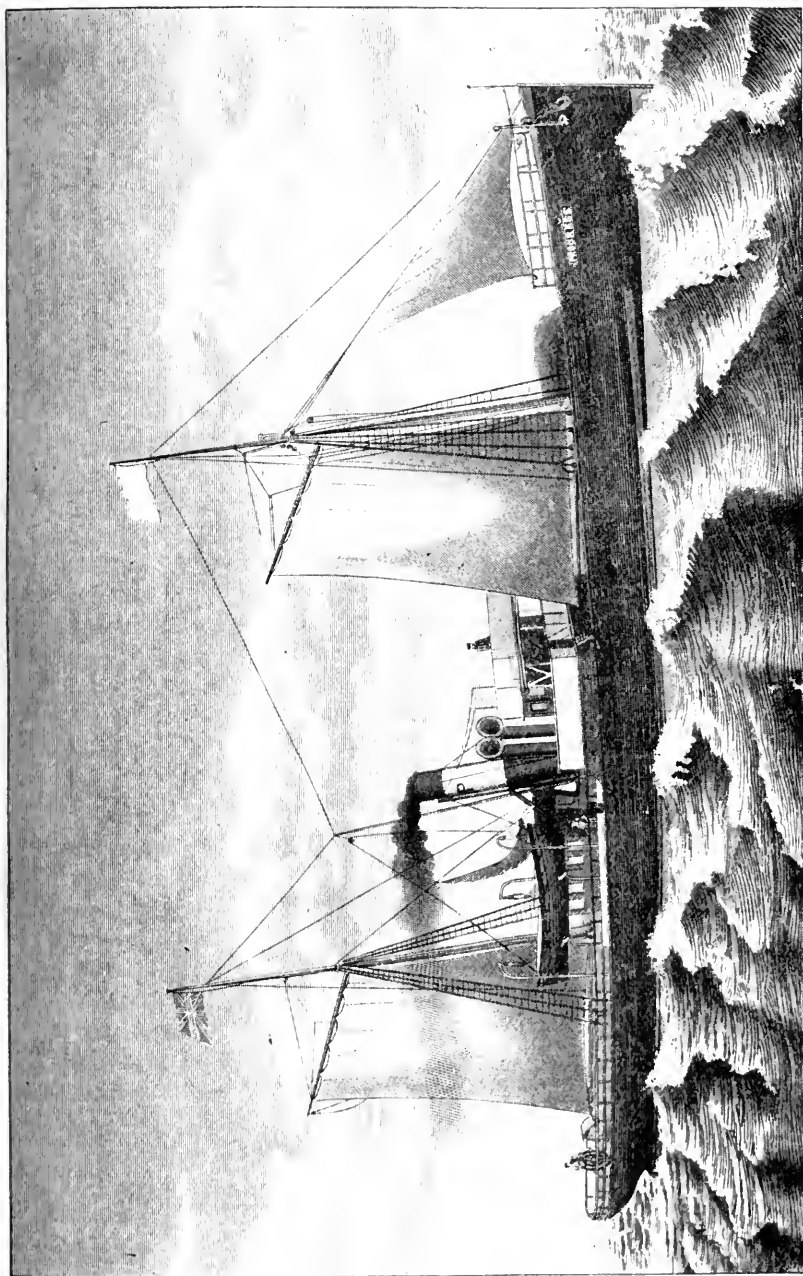




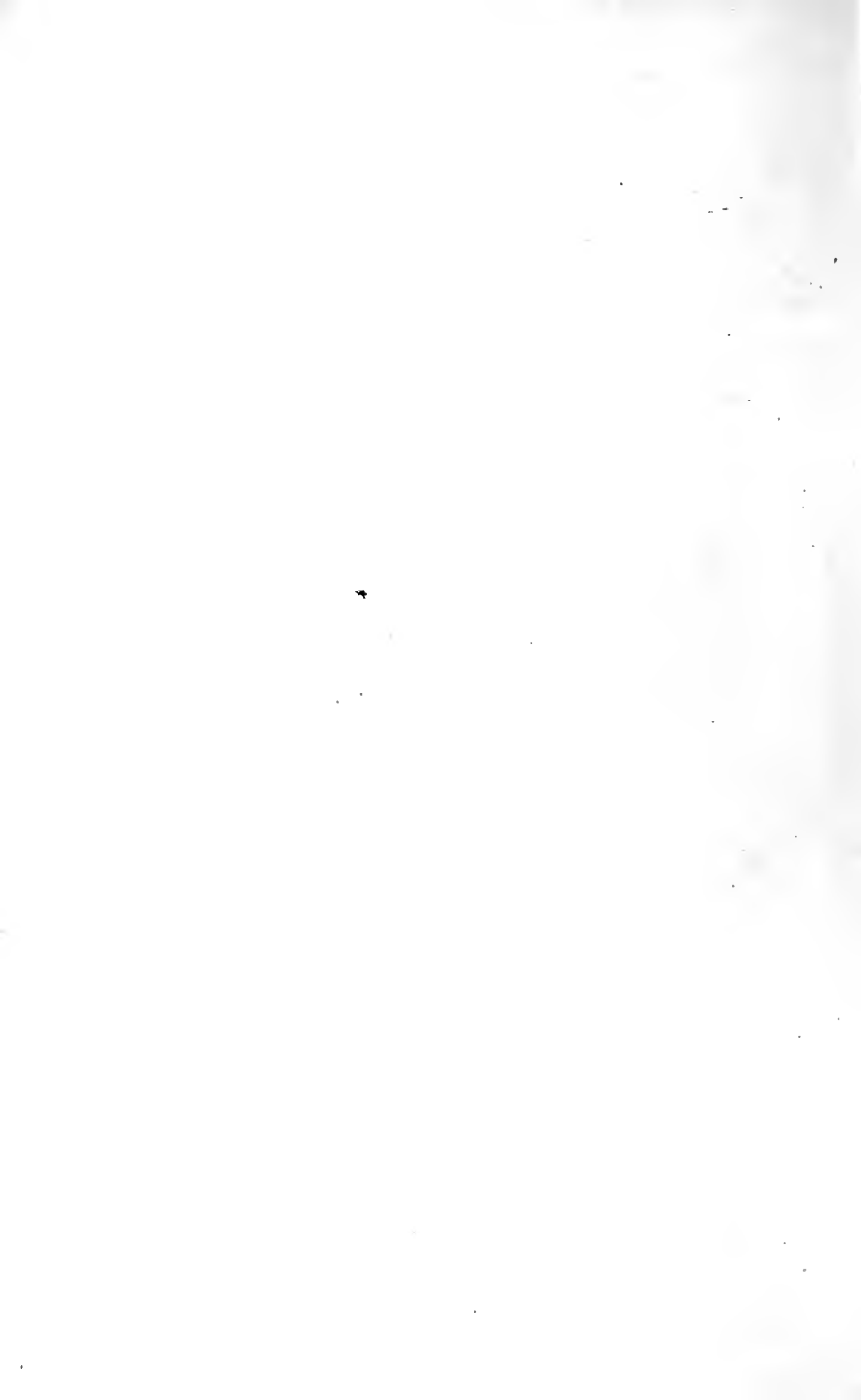
S.S. "UNITY," GARSTON-ROUEN LINE.  
(See page 35 and 50.)







S.S. "PROGRESS," ANGLO-SIAM LINE  
(See pages 39 and 50.)



# THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED.



*Enrolled August 11th, 1863, under the Provisions of the Industrial and Provident Societies Act, 25 and 26 Vict., cap. 87, sec. 15, 1862.*

Business commenced March 14, 1864. Shares, £5 each,  
TRANSFERABLE.



CENTRAL OFFICES, BANK, GROCERY AND PROVISION, AND BOOT AND  
SHOE WAREHOUSES:

BALLOON STREET, MANCHESTER.

DRAPERY, WOOLLEN CLOTH, AND READY-MADES WAREHOUSES:

DANTZIC STREET, MANCHESTER.

FURNISHING WAREHOUSE:

HOLGATE STREET, MANCHESTER.

## BRANCHES:

WATERLOO STREET, NEWCASTLE-ON-TYNE,  
AND LEMAN STREET, LONDON, E.

## PURCHASING AND FORWARDING DEPOTS:

ENGLAND:

LIVERPOOL, BRISTOL, LONGTON, GOOLE, AND GARSTON.

IRELAND:

CORK, LIMERICK, KILMALLOCK, WATERFORD,  
TRALEE, AND ARMAGH.

AMERICA:

NEW YORK.

DENMARK:

COPENHAGEN, AARHUS.

FRANCE:

CALAIS AND ROUEN.

GERMANY:

HAMBURG.

## SALEROOMS:

LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN,  
BIRMINGHAM, NORTHAMPTON, AND CARDIFF.

**PRODUCTIVE WORKS:**

BISCUITS, SWEETS, AND JAM WORKS, AND DRY SOAP WORKS:  
CRUMPSALL, NEAR MANCHESTER.

BOOT AND SHOE WORKS:  
LEICESTER AND HECKMONDWIKE.

SOAP WORKS:  
DURHAM.

WOOLLEN CLOTH WORKS:  
LIVINGSTONE MILL, BATLEY.

READY-MADES WORKS:  
HARPER PLACE, LEEDS.

COCOA AND CHOCOLATE WORKS:  
116, LEMAN STREET, LONDON.

CORN MILL:  
DUNSTON-ON-TYNE.

FURNITURE FACTORY:  
BROUGHTON, NEAR MANCHESTER.

**SHIPOWNERS AND SHIPPERS:**

BETWEEN

GARSTON AND ROUEN;  
GOOLE AND CALAIS;  
GOOLE AND HAMBURG.

**STEAMSHIPS OWNED BY THE SOCIETY:**

"PIONEER," "UNITY," "PROGRESS,"  
"FEDERATION," "EQUITY,"  
AND  
"LIBERTY."

**BANKERS:**

THE MANCHESTER AND COUNTY BANK LIMITED.  
THE LONDON AND COUNTY BANK.  
THE NATIONAL PROVINCIAL BANK OF ENGLAND.  
THE MANCHESTER AND LIVERPOOL DISTRICT BANK.  
THE LANCASHIRE AND YORKSHIRE BANK.  
THE UNION BANK OF MANCHESTER.

## General Committee.

### PRESIDENT:

Mr. J. T. W. MITCHELL,  
15, John Street, Rochdale.

### VICE-PRESIDENT:

Mr. JOHN SHILLITO,  
17, Cavendish Terrace, Halifax.

### SECRETARY:

Mr. THOMAS SWANN, Beech Villa, James Street, Masborough.

Mr. WILLIAM BATES .....Green Lane, Patricroft.  
Mr. THOMAS BLAND .....Rashcliffe, Huddersfield.  
Mr. E. GRINDROD .....8, Apsley Street, Keighley.  
Mr. E. HIBBERT.....7, Wicken Tree Lane, Failsworth.  
Mr. THOMAS HIND .....3, Grey Friars, Leicester.  
Mr. THOMAS KILLON .....45, Heywood Street, Bury.  
Mr. JOHN LORD .....19, Tremellen Street, Accrington.  
Mr. JAMES LOWNDS .....92, Catherine Street, Ashton-under-Lyne.  
Mr. T. E. MOORHOUSE.....Reporter Office, Delph.  
Mr. ALFRED NORTH .....Mount Pleasant, Batley.  
Mr. H. C. PINGSTONE .....Market Street, Manchester.  
Mr. A. SCOTTON .....48, Co-operative Street, Derby.  
Mr. JOHN STANSFIELD.....Jeremy Lane, Heckmondwike.

\* \* \*

## NEWCASTLE BRANCH COMMITTEE.

CHAIRMAN: Mr. T. TWEDDELL .....Cleveland Terrace, West Hartlepool.  
SECRETARY: Mr. ROBERT GIBSON, 120, Sidney Grove, Newcastle-on-Tyne.  
Mr. GEORGE BINNEY .....2, Co-op. New Houses, Alligate, Durham.  
Mr. ROBERT IRVING.....Woodrouffe Terrace, Carlisle.  
Mr. THOMAS RULE.....20, Ravensworth Terrace, Bensham, Gateshead.  
Mr. THOMAS SHOTTON .....Cemetery Road, Blackhill, Durham.  
Mr. WILLIAM STOKER .....Seaton Delaval, Northumberland.

\* \* \*

## LONDON BRANCH COMMITTEE.

CHAIRMAN: Mr. GEO. HAWKINS, 53, Kingston Road, Oxford.

VICE-CHAIRMAN: Mr. GEO. SUTHERLAND, 78, Maxey Road, Plumstead.

SECRETARY: Mr. HENRY PUMPHREY, Paddock Terrace, Lewes.

Mr. JOSEPH CLAY .....Stratton Road, Gloucester.  
Mr. H. ELSEY .....9, Lynwood Terrace, Lawrence Road, Southsea.  
Mr. J. F. GOODEY .....New Town Lodge, Colchester.  
Mr. GEORGE HINES .....Croft Street, Ipswich.  
Mr. T. E. WEBB ..1, Honeywell Road, Wandsworth Common, London, S.W.

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## SCRUTINEERS.

Mr. F. HARDERN, Oldham.      Mr. J. J. BAIRSTOW, Dewsbury.

\* \* \*

## AUDITORS.

Mr. THOS. J. BAYLIS, Rotherham.      Mr. JAMES E. LORD, Rochdale.  
Mr. ISAAC HAIGH, Barnsley.      Mr. THOMAS WOOD, Manchester.

## Officers of the Society.

### ACCOUNTANT.

Mr. THOMAS BRODRICK, Eccles.

### CASHIER.

Mr. A. GREENWOOD, Rochdale.

### BUYERS, SALESMEN, &c.

#### MANCHESTER—GROCERY AND PROVISIONS :

Mr. ISAAC TWEEDALE.

Mr. GEORGE GARLICK.

Mr. THOMAS PEARSON.

Mr. WILLIAM WROOT.

#### MANCHESTER—DRAPERY :

Mr. JAMES FLETCHER.

Mr. JOHN SHARROCKS.

Mr. WILLIAM T. ALLITT.

Mr. JOHN T. OGDEN.

#### MANCHESTER—WOOLLENS, BOOTS, AND FURNITURE :

Woollen Cloth ..... Mr. W. GIBSON.

Boot and Shoe ..... Mr. HENRY JACKSON.

Furniture..... Mr. T. R. ALLEN.

#### MANCHESTER—TRAVELLERS :

Grocery and Provisions ..... Mr. R. TURNER.

Productive Societies and Drapery ..... Mr. J. MEADOWCROFT.

" " " " ..... Mr. THOS. A. RANKIN.

" " " " ..... Mr. A. ACKROYD.

#### SHIPPING DEPARTMENT :

General Manager..... Mr. CHAS. R. CAMERON.

#### SHIPPING AND FORWARDING DEPOTS :

Rouen (France) ..... Mr. JAMES MARQUIS.

Goole ..... Mr. W. J. SCHOFIELD.

Calais ..... Mr. WILLIAM HURT.

#### LONDON :

Tea, Coffee, and Cocoa..... Mr. CHARLES FIELDING.

#### LIVERPOOL :

Grocery and Provisions ..... Mr. ARTHUR W. LOBB.

#### SALEROOMS :

Leeds ..... Mr. JOSEPH HOLDEN.

Nottingham ..... Mr. G. T. TOWNSEND.

Huddersfield ..... Mr. GEO. BARLASS.

Birmingham ..... Mr. J. KERSHAW.

Northampton ..... Mr. A. BAKER.

Cardiff ..... Mr. J. F. JAMES.

#### LONGTON :

Crockery Dépôt ..... Mr. J. RHODES.

## NEWCASTLE :

Grocery and Provisions ..... Mr. ROBT. WILKINSON.  
 " " ..... Mr. T. WEATHERSON.  
 Drapery ..... Mr. JOHN MACKENZIE.  
 Boot and Shoe ..... Mr. O. JACKSON.  
 Furniture and Hardware ..... Mr. J. W. TAYLOR.  
 Chief Clerk ..... Mr. H. R. BAILEY.

## BUYERS, SALESMEN, &amp;c.

## LONDON :

Grocery and Provisions ..... Mr. BENJAMIN JONES.  
 " " ..... Mr. WM. OPENSHAW.  
 Drapery ..... Mr. F. G. WADDINGTON.  
 Boots and Shoes ..... Mr. ALFRED PARTRIDGE.  
 Furnishing ..... Mr. F. E. ODDY.  
 Chief Clerk ..... Mr. WILLIAM STRAWN.

## BRISTOL DEPÔT :

Mr. C. CUNNINGHAM.

## IRISH BRANCHES—BUTTER AND EGGS.

## CORK :

Mr. WILLIAM H. STOTT.

## KILMALLOCK :

Mr. THOS. G. O'SULLIVAN.

## TRALEE :

Mr. JAMES DAWSON.

## LIMERICK :

Mr. WILLIAM L. STOKES.

## WATERFORD :

Mr. THOMAS J. SHANN.

## ARMAGH :

Mr. J. HOLLAND.

## NEW YORK (AMERICA) :

Mr. JOHN GLEDHILL.

Mr. JAS. M. PERCIVAL.

## COPENHAGEN (DENMARK) :

Mr. JOHN ANDREW.

## HAMBURG (GERMANY) :

Mr. WM. DILWORTH.

## AARHUS (DENMARK) :

Mr. H. J. W. MADSEN.

## LOWER CRUMPSALL BISCUIT, &amp;c., WORKS :

Mr. THOMAS HAYES.

## LEICESTER BOOT AND SHOE WORKS :

Mr. JOHN BUTCHER.

## HECKMONDWIKE BOOT AND SHOE WORKS :

Mr. J. W. HEMMINGS.

## DURHAM SOAP WORKS : BATLEY WOOLLEN CLOTH WORKS :

Mr. J. E. GREEN.

Mr. S. BOOTHROYD.

## LEEDS READY-MADES WORKS :

Manager ..... Mr. WILLIAM UTTLEY.

Traveller ..... Mr. J. STEAD.

## DUNSTON CORN MILL :

Mr. LEWIS DYSON.

## BROUGHTON (MANCHESTER) CABINET FACTORY :

Mr. J. HODGKINSON.

# Emploves.

## NUMBER OF EMPLOYÉS, OCTOBER, 1893.

### MANCHESTER:

General Drapery, Boot and Shoe, and Furnishing Offices .....	236	Tailoring Department, Cable St. Boot and Shoe .....	82
Cashier's Office .....	17	Furnishing .....	31
Grocery Department .....	142	Shipping .....	38
Drapery .....	91	Building .....	4
Shirt Manufacturing .....	48	Dining-room .....	83
Woollen Cloth Department .....	9	Other .....	10
			34
		* Total Manchester .....	825
Newcastle Branch .....			311
" Building Department .....			79
London Branch .....			192
" Building Department .....			64
" Tea .....			333
" Stables .....			15
" Brush Productive .....			13
Leeds Saleroom .....			3
Nottingham Saleroom .....			1
Birmingham .....			1
Northampton .....			1
Bristol Depot .....			40
Cardiff .....			1
Liverpool Branch—Grocery and Shipping .....			22
Longton—Crockery Department .....			18
Irish Branches .....			40
Rouen Branch .....			4
Goole .....			12
Calais .....			8
Garston .....			2
New York Branch .....			6
Copenhagen .....			8
Hamburg .....			3
Aarhus .....			4
Crumpsall Biscuit Works .....			303
Leicester Shoe .....		Knighton Fields .....	1609
" .....		Duns Lane .....	236
Enderby .....			120
Heckmondwike Shoe Works .....			243
" Currying Department .....			43
Durham Soap Works .....			17
Batley Woollen Mill .....			100
Leeds—Ready Mades .....			209
Dunston Corn Mill .....			124
Broughton Cabinet Factory .....			44
Steamships—"Pioneer," 14; "Unity," 15; "Progress," 13; "Federa- tion," 18; "Equity," 19; "Liberty," 19 .....			98
		Total .....	5202



# Terms of Membership.

## TRADE DEPARTMENT.

**F**OR the information of Societies and Companies not already purchasers from or members of this Society, we give below— (1) our requirements on opening new accounts; (2) particulars of trade terms; (3) terms and conditions of membership; and (4) a few of the advantages accruing from membership.

Any further information will gladly be given on application.

### (1) NEW ACCOUNTS.

Societies desiring to open accounts are requested to furnish us with a copy each of their registered rules and latest balance sheet.

If a balance sheet has not been prepared, then the following information should be sent, viz., the number of members; amount of paid-up share capital; whether credit is allowed, and if so, to what extent; the amount of business done, or expected to be done per week.

### (2) TRADE TERMS.

With the first order sufficient cash must be remitted to cover the estimated value of the goods ordered; afterwards payment must be made within seven days from date of invoice; all accounts are rendered strictly net.

Business is conducted on these terms, with *registered* Co-operative Societies and Companies only.

Societies in process of formation and whose rules are not yet registered can be supplied with goods on payment of cash with each order.

### (3) TERMS AND CONDITIONS OF MEMBERSHIP.

The following extracts from our Rules contain the principal features in connection with membership:—

#### (a) ADMISSION OF MEMBERS.—(Extract from Rule 5.)

The members of this society shall consist of such co-operative societies or companies (registered under the Industrial and Provident Societies Act, 1876, or under the Companies Acts, with limited liability, or under any law of the country where they are situate, whereby they acquire the right of trading as bodies corporate, with limited liability) as have been admitted by the general committee, and approved by a majority of delegates voting at a general meeting of the society. An application for shares shall be made by a resolution of some general or committee meeting of the society or company making the application, contained in writing and attested by the signatures of the secretary and three of its members. Every society or company making an application for shares shall state the number of its members, and take up not less than three £5 shares for every twenty members, or fractional part thereof, and agree to increase the number annually as its members increase, making the return of such increase at the time and in accordance with its return to the Registrar.

## (b) CAPITAL—HOW PAID UP.—(Extract from Rule 9.)

The capital of this society shall be raised in shares of five pounds each, which shall be transferable only. Every society, on its admission, shall pay the sum of not less than one shilling on each share taken up. Each five pounds so paid shall constitute one fully paid-up share; but no dividend or interest shall be withdrawn by members until their shares are paid up. Any member may pay up shares in advance. After having received the consent of a special meeting, the whole or any part of the share capital may be called up by the general committee on giving notice to that effect.

## (c) FORM OF APPLICATION FOR SHARES.

## APPLICATION FOR SHARES.

Folio.....

The.....

*Co-operative Society Limited.*

TO THE DIRECTORS OF THE CO-OPERATIVE WHOLESALE  
SOCIETY LIMITED, 1, BALLOON STREET, MANCHESTER.

Gentlemen,

Whereas, by a Resolution of the.....  
*Co-operative Society Limited, passed by the\*.....*  
*at a Meeting held on the.....day of.....it was*  
*resolved that the Society, which consists of.....Members,*  
*agree to take up.....Shares (being not less than Three*  
*Shares for every Twenty of our Members, or fractional part*  
*thereof) in the Co-operative Wholesale Society Limited, and*  
*annually to increase our Shares at the time and in accordance*  
*with our return to the Registrar, and to accept such Shares on*  
*the terms and conditions specified in your Rules.*

.....189

Attested by ..... }  
..... } *Three Members.*  
..... }  
..... *Secretary.*

\* Members, Committee of Management, or Directors.

## (4) ADVANTAGES ACCRUING FROM MEMBERSHIP.

- (a) The liability of each society member is limited to the amount of its shares.
- (b) Members of this Society receive double the rate of dividend on purchases to non-members.
- (c) Share capital receives interest after the rate of £5 per cent per annum.
- (d) Each society composing the "Wholesale" may nominate one representative for every 500 of its members to represent it at the General or Branch Quarterly Meetings, or other Special Meetings which may be convened from time to time, and thus have a direct influence and voice in the control and management of its affairs. The nomination and election of its officers for General and Branch Committees, Auditors, and Scrutineers are effected by means of nomination and voting papers, which are sent to all shareholding societies to be filled up.
- (e) A merely nominal payment secures membership, a deposit of 1s. per share upon application being only required; the dividend on purchases and interest on share capital being credited to share account until paid up.

Those societies not already federated with the "Wholesale" should at once join and thus secure the advantages to themselves and the co-operative movement generally which its extensive and varied operations are intended to confer.

## Business Notices.

ALL LETTERS TO BE ADDRESSED TO THE SOCIETY, AND NOT TO INDIVIDUALS.

WE would especially impress upon Societies' Managers and Secretaries the necessity of complying with the following regulations, in order to facilitate the despatch of Goods, to ensure promptitude in the answering and classification of letters, and to prevent disappointment.

### LETTERS.

ALL letters must be addressed to the Society, and not to individuals.

Addressed Envelopes are supplied at cost price.

Communications for the following Departments, and relating to the subjects named, should always be made on separate forms or sheets of paper, viz. :—

- (1) Bank and Cashier's Department.
- (2) Accountant's Department.
- (3) Grocery and Provision Department—Orders only.
- (4)     "                     "                     "                     Application for Samples only.
- (5) Drapery Department—Orders and Applications for Samples.
- (6) Boot and Shoe Department—Orders and Applications for Samples.
- (7) Woollen Cloth             "                     "                     "                     "
- (8) Furnishing Department—Orders and Applications for Samples.
- (9) Advices of Returns.
- (10) Claims, delays, complaints, &c., for all Departments.

Although each of the above classifications requires a separate form, they should all be enclosed under one cover, and addressed to the Society.

At the Central Office, in Manchester alone, the number of Letters, Orders, &c., received daily is enormous. To effectually deal with these communications some division into departments is absolutely necessary.

These classifications have therefore been adopted, and Societies are asked to assist by seeing that their communications are despatched in accordance therewith, as when subjects included in more than one of these divisions are dealt with on one form, much labour is involved in re-writing the portions required to be separated.

### ORDERS FOR GOODS.

*The name of the Society and the Station to which the Goods are to be forwarded should be written at the head of each order.*

ORDERS should contain the Price or Brand of each Article wanted.

Delays would often be prevented by noticing in which column in the Price Lists (Manchester, Newcastle, London, &c.) the Goods are quoted, and posting the Orders direct to the Central, or branches named, as the case requires.

As regards "Direct Quotations," notwithstanding that there are many instances where minimum quantities are fixed, orders are frequently received for less than the stipulated quantities. This necessitates correspondence, and in cases of urgency entails inconvenience to Societies, which would be obviated by carefully noticing the Price List when ordering.

It is desirable that the Forms we have specially prepared should be used in sending Orders.

1. Grocery, Drapery, Woollens, and Furnishing Department.
2. Tailoring (Bespoke), with instructions for measurement.
3. Boot and Shoe Department.
4. " " " (Bespoke), with instructions for measurement.

Books containing 50 Forms, with Duplicates, will be sent free on application.

Orders for each Department should be made out on separate forms.

### CONSIGNMENT OF GOODS.

WHENEVER delays occur in the delivery of Goods, Societies will please communicate with the carrier at their end, in addition to informing us.

To prevent any misunderstanding as to who is responsible for the safe delivery of Goods, we would state that when Goods are Carriage Paid we undertake their safe delivery; but when the Carriage is Not Paid, the Carrier is responsible to the Consignees, who, before taking delivery of any Goods, should carefully examine the same, and at once claim for any loss or damage sustained in transit.

### EMPTYES.

EMPTY packages should be returned carefully packed, and fully and correctly consigned.

Each package should have a *label or direction card attached, stating the contents, the name of the Society forwarding them, and the name and address of their destination.*

Empties should be returned direct to the manufacturer from whom the Goods were sent. When returned to Manchester or the Branches, additional expense and trouble are incurred in re-consigning them to their proper destination.

A few manufacturers pay carriage on returned empties; where this is done Societies will consign carriage forward, in all other cases carriage should be paid. A list of firms who pay carriage may be obtained on application at the Central Offices.

In all cases an advice giving full particulars of the empties returned (viz., the kind, the quantity, the numbers, the price charged, and reference to invoice where charged) should be immediately posted to us, as unless this is done our rule is not to allow credit for them.

We have a book, which we send free on application, containing 50 forms, with duplicates, specially prepared for this purpose, which Societies are recommended to use.

The importance of carrying out these instructions will be seen when Societies are informed that the Railway Companies seldom make deliveries of empties until they have a complete load, and under such circumstances it is almost impossible to ascertain from what Societies they have been received, unless full particulars are given.

In many cases Societies do not fully carry out these instructions, consequently we are continually receiving empty packages which we are not able to credit because we do not know from whom they have been returned. This is a loss which we are desirous Societies should not incur; we therefore point it out to them so that the necessary precautions may be taken to avoid it.

## GOODS CONSIGNED AS EMPTIES.

WE cannot hold ourselves responsible for any Goods that may be returned consigned as empties, as any claim made on the Railway Companies for missing Goods under such circumstances would not be entertained.

## STATEMENTS OF TRADE ACCOUNTS.

### WEEKLY STATEMENTS

ARE sent out to all Societies doing business with us, showing Total of Goods Invoiced, Cash Received, and Allowances made during the week, and Balance, if any, at the week end.

These statements afford a great check on Societies' books, and Secretaries are requested to compare each one as received with their books, and to report to us particulars in case of any discrepancy.

### QUARTERLY STATEMENTS

Are issued immediately after our Books are made up for the Quarter.

They are in form similar to the Weekly Statements, and must be returned, duly certified if correct, to our Auditors, who require them as an independent check as to the correctness of our accounts.

We rely upon Societies giving prompt attention to these statements, as the early issue of our Balance Sheets depends to an extent on their immediate return.

In case of any discrepancy, details should be at once given or applied for, but if correct, the Statement should be forthwith signed and returned to the Auditors, in the envelope sent out for that purpose.

## SHARE AND LOAN PASS BOOKS.

THESE should be sent to the Head Office (1, Balloon Street, Manchester) *every* Quarter, viz., in the Second Week of March, June, September, and December, for the purpose of having the previous quarter's Interest and Dividend entered therein. Societies requiring information respecting the amount of their Share or Loan Capital are requested to send their Pass Books for the amount to be filled in, instead of sending for Statements.

When Shares are paid up the Share Book need not again be sent until a further allotment is made.

## SOCIETIES' BALANCE SHEETS.

WE especially desire those Societies who have not already done so to send us a copy of their last Balance Sheet, stating on it the number of their Members; also, a copy of their rules.

## Trade Department.

### CASH ARRANGEMENTS.

WE beg to call the attention of Societies to the arrangements specified below, which will give facility and security when making remittances to this Society:—

1. **All cash must be addressed to the Society only, and not to individuals, nor to the committee or auditors.**

2. **CHEQUES and DRAFTS** to be made payable to the CO-OPERATIVE WHOLESALE SOCIETY LIMITED. Post-office orders must be made payable to ABRAHAM GREENWOOD. Drafts drawn in favour of this Society must be made payable on demand; other drafts when remitted to us must have reached maturity. All drafts, if possible, should be made payable either at London or Manchester.

3. Societies are respectfully requested, when drawing cheques in our favour, to do so in full, viz., Co-operative Wholesale Society Limited, without any abbreviation or variation whatever.

4. In forwarding half notes societies should state whether they are first or second halves; the latter half notes should be forwarded immediately on receipt of our acknowledgment of the first. Societies not receiving acknowledgment for first or second half notes in due course of post, will oblige by calling attention to the omission.

5. **Care should be taken to advise immediately when a remittance is made to us, stating the amount and the name and place of the bank or branches through which the remittance is made.**

6. Remittances made through a bank in all cases should be done in the name of the society sending cash to us, and not in the name of a person.

7. Arrangements for the remittance of cash will, in the first instance, be made by this Society, and afterwards arrange with societies availing themselves of these facilities for paying cash to us.

8. Societies would greatly oblige, and thereby facilitate the business of this Society, if they will, when advising cash remittances, or any matter relating to payment of cash, do so on a separate sheet of paper.

9. **LOANS, WITHDRAWAL OF.**—Societies, when requiring to withdraw their loans, are respectfully requested to **apply at the Head Office, Manchester**, for an official form, which is provided for and supplied to societies for the purpose of enabling them to withdraw loans and to state definitely the amount of loan they wish to withdraw. Societies will please note this special request. The Wholesale Society will give due notice when they are prepared to accept new loans.

# Bank Department.

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## CURRENT ACCOUNTS

OPENED ON THE PLAN USUALLY ADOPTED BY OTHER BANKERS.

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CUSTOMERS keeping accounts with the Bank by arrangement may have moneys paid to their credit at the

HEAD OFFICES,

BALLOON STREET, MANCHESTER,

AND AT

THE BRANCHES,

WATERLOO STREET, NEWCASTLE-ON-TYNE,

AND

HOOPER SQUARE, LEMAN STREET, WHITECHAPEL, LONDON, E.

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### CORRESPONDENTS :

THE PIONEERS' SOCIETY, TOAD LANE, ROCHDALE;

THE INDUSTRIAL SOCIETY, SCHOOL STREET, OVER DARWEN;

THE CO-OPERATIVE SOCIETY, HIGH STREET, LEICESTER.

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### CORRESPONDENTS OF THE FOLLOWING BANKS:

MANCHESTER AND COUNTY BANK,

LONDON AND COUNTY BANK,

NATIONAL PROVINCIAL BANK OF ENGLAND,

UNION BANK OF MANCHESTER,

LANCASHIRE AND YORKSHIRE BANK,

MANCHESTER AND LIVERPOOL DISTRICT BANK,

AND

UNION BANK OF SCOTLAND LIMITED.

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The Banking Turnover is £30,000,000 per annum.

## Grocery and Provision Departments.

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A COMPLETE PRICE LIST of the goods dealt in is issued weekly, the prices being fixed for the day of issue only. These Weekly Lists, which are sent to Co-operative Societies with whom we do business, contain reports and opinions as to the state of the markets, as regards some of the principal articles.

The reports are intended for, and calculated to be of service to, Committees and Managers of Societies, in pointing out the tendency of the markets, and when to buy to advantage.

The following is a brief *résumé* of the chief commodities, and how the "Wholesale" is circumstanced in relation thereto:—

### BUTTER AND EGGS—IRISH.

THE arrangements in force for conducting this portion of the business are remarkably well adapted for supplying the same on the most favourable terms.

There are six buyers, attending markets at Cork, Limerick, Kilmallock, Waterford, Tralee, and Armagh. These buyers are gentlemen of the first experience in the trade, and are under the immediate and direct control of the Society—not being merely employed as agents or buyers on commission.

The buyers, although taking up their residences at the places named, attend all the best and noted markets within a radius of twenty or thirty miles, and thus it will be seen that the area covered by their operations embraces a great proportion of the south of Ireland, and some of the most fertile districts of that country.

This Society is by far the most extensive purchaser and shipper of Irish Butter.

### BUTTER AND EGGS—DANISH.

THE same remarks may be made in this respect as in the case of Irish Butter and Eggs. We have our own buyers stationed at Copenhagen and other centres, and they purchase direct from farmers who are considered the best producers in both Denmark and Sweden, and contract with them for a weekly supply of all they make.

Before shipment, all goods are carefully examined by our representative.

Societies should encourage this Branch by giving us weekly orders for shipment direct, and thus save the cost of warehousing and of carriage from Manchester.

### BUTTER—KIEL, AND GERMAN EGGS.

OUR arrangements for the purchase of these are similar to those at Copenhagen.

Our own buyer is located at Hamburg, and buys firsthand from the farmers and producers.



Our ready-money system of doing business commands the best terms, and enables us to do a very extensive and satisfactory trade in these articles.

## BUTTER AND EGGS—FRENCH.

SUPPLIES of these are obtained fresh weekly, and are carefully selected for the Society, by competent and experienced men, from the best dairies and districts in France.

## AMERICAN BUTTER, CHEESE, BACON, HAMS, LARD, FLOUR, APPLES, &c., &c.—NEW YORK BRANCH.

Two buyers are located at New York, whose duty it is to purchase and export the articles sold by the Society which are grown and manufactured in the United States and Canada.

The business done by the Society, and the Capital always at its command, enables its representatives to enter the markets in an independent manner, and places them in a pre-eminent position to exact terms of the first order. These conditions, and the consequent absence of the intermediate dealers, qualify the Society to transfer the goods from where they are produced to the consumer with the least possible addition to the cost.

## CHESHIRE CHEESE.

THE Society's buyers visit the best dairies and farms in Cheshire where this is made, and purchase it from the farmers on the spot.

## YEAST.

THIS is imported by the Society direct from the best distillers at Schiedam, Hamburg, and France. It is received in the port of Hull twice in each week—*i.e.*, Mondays and Thursdays—and distributed from there to the Society's customers.

## SUGAR.

THE large purchases which the Society is able to make, place it in the best position for securing the utmost advantages from the refiners.

In addition to this, the Society's own buyers are in the centre of operations in Liverpool, London, Greenock, and New York, and are able to obtain information at first hand.

There is a telephone connecting its Liverpool offices with the Central establishment at Manchester, and the buyer in Liverpool is thus in constant telephonic communication with the Central buyer at Manchester, who, being in receipt of the latest and most reliable reports, is enabled to decide which is the most favourable time for making purchases.

Demeraras and other Raws are sampled on arrival, and the most suitable lots selected.

## FLOUR, GRAIN, &c.

THE finest brands of Flours are bought direct from the millers in Hungary; our own Registered Brands of Flours are distributed direct from the mill.

The Society's buyers in New York make very extensive purchases of Flour, direct from the millers, in both the United States and Canada.

Grain is bought in large quantities, "to arrive," and Meal of all kinds from the mills direct.

## DRIED FRUIT.

OUR Dried Fruit buyer goes annually to Greece and Turkey at the season when the fruits are being gathered, and visits the vineyards where the fruits are drying, in order to select the Samples of Currants, Sultanas, and Figs most suitable for Co-operative Societies. These are bought direct from the producer, thereby saving the middlemen's profits, and we get a better selection than could otherwise be obtained.

## PEPPER AND SPICES.

WE are large dealers in these articles, and the qualities we supply may be relied upon. We have an extensive and up-to-date grinding plant laid down, and these commodities are ground under our own immediate supervision. Their purity is thus guaranteed.

## POTATOES, ONIONS, APPLES, &c.

THERE is a special buyer for these goods, who travels over the districts known to produce the best sorts, and they are bought direct from the farmers when it can be done with advantage. Our buyer also regularly attends the Liverpool Green Fruit Auctions.

Purchases to a very large extent are also made in France, Belgium, and Germany, and the goods are imported to Goole and Garston by the Society's own steamers, which ply regularly between Calais and Goole and Hamburg and Goole on the East, and Rouen and Garston on the West Coast.

## BISCUITS, SWEETS, PRESERVES, MARMALADE, AND DRY SOAPS.

THESE goods are manufactured by the Society at their Works, Crumpsall, near Manchester. When impartially judged, the quality compares most favourably indeed with the goods made by other houses of older standing, and devoted to the special manufacture for a long period.

## CANNED GOODS.

IN regard to this trade we are in a position second to none; our arrangements being such that we have first offers from all the principal packers in America. Salmon, Lobster, Beef, &c., we have specially packed for us under our own brands.

# Tea, Coffee, and Cocoa Department,

LEMAN STREET, LONDON, E.

WE have a buyer on the London Market whose exclusive duty it is to select and purchase Teas, Coffees, and Cocos direct from the Importers.

The excellence of this arrangement, whether viewed from an economical point, or from that of enabling us to efficiently supply Societies with all the numerous varieties and qualities they may desire, is too apparent to need illustration.

Our unlimited command of money and unequalled organisation places us in a position for doing this trade superior to that of any other house.

## ASSAM AND OTHER INDIAN TEAS.

THESE are made a special study. Year by year they are increasing in favour with the public; and their greater pungency and strength, as compared with China Teas, are likely to make them still further popular.

## CEYLON TEAS.

THE enterprise of the planters in the Island of Ceylon, which started some few years ago, has proved entirely satisfactory, and the various estates are now yielding a much larger quantity with beneficial results to both growers and consumers.

These Teas are rapidly increasing in favour, and the consumption of 1893 shows a very large excess over 1892.

## CHINA TEAS.

THE decrease in the consumption of China Teas still continues, being about ten millions of lbs. less this season than last. A large proportion consisted of low grade sorts used for blending with other growths to reduce the cost. Nevertheless the finer kinds still find favour with many on account of their delicate flavour and absence of the astringency possessed by those from India and Ceylon.

## RED LEAF CONGOUS.

THESE are again very good; SEU MOOS and PAKLINGS, especially, being strong useful Teas.

## BLACK LEAF CONGOUS.

NINGCHOWS are better than they have been for some seasons past. OONFAS are a good average crop, but most other descriptions are below the standard of last year.

## SCENTED TEAS.

THESE are very well made and fairly free from dust, but generally lack the fine scent of the past season.

## GREEN TEAS.

THESE are still being less used than formerly. Very few fine liquoring Teas are obtainable.

## BLENDED TEAS.

THE art of blending is now carried to a high pitch of perfection, and to work it successfully requires not only a knowledge of the true affinities of the various growths of India, China, and Ceylon, acquired by a long apprenticeship to tea tasting, but ample capital, large premises, suitable machinery, and a competent staff of well-instructed employés. These have been provided for this section of our Tea and Coffee business.

Extreme care is taken to suit all tastes and districts, and everything that can be thought of to make our arrangements, if possible, still more perfect, will be done.

## BULK-MIXED.

THESE are packed in cads, half chests, and chests. The saving of capital and labour, the greater efficiency and satisfaction resulting from scientific blending, and the numerous grades supplied by us, is causing a largely-increased demand, and is making them very popular.

We are now supplying

Indian, Ceylon, and China Blends.

Ceylons and Indians, with a preponderance of Ceylons.

Pure Indians.

Pure Ceylons.

Indians and Ceylons, with a preponderance of Indians.

## CHINA PACKET TEAS.

IN addition to the excellence of the blending, we are making extra efforts to turn our packets out of a design and appearance that shall command attention and attract the consumer.

Everyone will admit the superiority in appearance of a handsome packet to the ordinary parcel turned out by the shopman when the Tea is weighed over the counter.

By careful attention to the economy of labour, we are able to supply packets, in large and beautiful variety, at a cost less even than would be incurred if made up in the ordinary way in the Store. In order to meet the requirements of those

who prefer the delicate flavoured China Teas, or who cannot drink the strong pungent Indian and Ceylon Teas, we have introduced a pure China Tea in packets.

### INDIAN PACKET TEAS.

As we have mentioned before, Indian Teas are rapidly increasing in public favour, and, instead of being mixed with China Teas, are now being extensively used by themselves, so to meet these requirements we have introduced two Indian Packets, one a pure Souchong and the other a pure Pekoe blend.

### CEYLON PACKET TEAS.

As these Teas are rapidly and deservedly growing in public favour, on account of their strong, rich, and delicious flavour, we have introduced two Ceylon Packet Teas. We warn our readers that a great many mixtures are offered as Pure Ceylon Teas in leaden packets, and represented as being imported direct from Ceylon in this form. Teas offered in such packets should be avoided, as the finest Ceylon Teas are seldom so imported.

### PACKET TEAS NEWLY INTRODUCED.

WE have now introduced a Ceylon Blend Packet Tea at 2s. per lb. retail, which is meeting with a good demand. Also three lower priced Teas, viz:—Economic, at 1s. 8d. retail; Household, at 1s. 6d. retail; and Useful, at 1s. 4d. retail, in order that where firms are advertising these grades the Societies may be in a position to serve the same article, and thus avoid the members being led away from dealing at their own Stores.

### COFFEES.

PLANTATION shipments total about the same as last year, and the quality is up to the average, whilst prices compared to previous season have been on a more moderate scale.

EAST INDIA arrivals have been rather less than usual, but, quality not being desirable, this kind has been rather neglected.

COSTA RICA.—The finer sorts are rather short in supply. Prices have been rather irregular during the earlier part of the season, but later a substantial advance has taken place.

RIO and SANTOS.—These crops are about one million bags short of requirements to meet consumption, but, previous surplus stocks being heavy, prices have been kept within moderate limits.

## RAW COFFEES.

Our arrangements for the supply of all kinds in use in the home market are as efficient as they can be possibly made.

Samples, both in the raw and roasted state, are sent with all quotations.

## ROASTED COFFEES.

We have now roasting machinery both in London and Manchester, fitted with all the latest improvements.

These enable us to supply the freshly-roasted article in the most expeditious manner; and great care is taken to finish off the berry to suit the particular requirements of customers.

## PACKED COFFEE.

GREAT quantities of rubbish have been, and are being, sold under different fancy names. The extraordinary proportions the demand for these articles has assumed have led the Government to impose a special tax on all mixtures, so as to compensate for the loss of revenue on Coffee caused by their consumption.

This will now put the honest trader on a fair footing, and with the great advantage to the consumer that he can make sure of getting a really good and pure article at a reasonable price.

We therefore now sell Coffees of different grades and qualities, both pure and mixed with Chicory, at prices which will be sure to command a good sale.

Our excellent machinery, our economical arrangements, the large scale of our operations, and the well-known beneficial results of division of labour, will enable us to supply Societies cheaper and better than it is possible for them to do for themselves.

## COCOA AND CHOCOLATE.

In order to give Societies the opportunity of getting their supplies at the lowest possible cost, we have commenced the production of the various kinds of Cocoa and Chocolate most in demand.

The greatest care is exercised in the manufacture, ingredients of the best quality only being used. The works are fitted with efficient and modern machinery. The Society is thus in a position to manufacture all classes of Cocoas and Chocolates showing better quality and value than any others in the market.

Special attention is drawn to the following:—

### PURE CONCENTRATED EXTRACT IN TINS.

THIS Cocoa is similar in character to the best of the well-known Dutch Cocoas. It possesses great strength, combined with exquisite flavour, and at the same time is most economical in use. We claim for this Cocoa that it is at least as good as any other maker's, at the same time being considerably lower in price.

## PURE CONCENTRATED ESSENCE IN PACKETS.

A PREPARATION of the finest selected Cocoa nuts from which the greater part of the fat has been extracted; *contains no sugar and no starch*. With this powder can be made a cup of Cocoa thin in body, like Tea and Coffee, but with far more nutritive qualities than either of these.

## PREPARED BREAKFAST COCOA,

MADE of the finest grown nuts and mixed with such other ingredients of the best quality as are necessary to produce a high-class powder, soluble and easy of digestion.

## HOMŒOPATHIC COCOA.

WE make three qualities, each of which will be found not inferior to the Cocoas usually sold by this name.

## PEARL COCOA.

GREAT care is taken to produce this popular Cocoa in the best form, and the constantly increasing sales show our efforts to have been successful.

## ROCK CHOCOLATE.

A PREPARATION of finest Nibs and best Loaf Sugar; specially recommended.

The following also are made, each in various qualities:—

ROCK COCOA, FLAKE, COCOA NIBS, &c.

## CHOCOLATE CONFECTIONERY.

WE are now turning out large quantities of this article in various forms of  $\frac{3}{4}$ d., 1d.; and 2d. Cakes, Drops, also Creams and Cream Cakes, and many other varieties of Chocolate Confectionery.

Societies who have not yet tried these are strongly recommended to do so, for, whilst being very wholesome and nutritious both for children and adults, the sale will be found to be a profitable source of revenue, which Societies may as well secure for themselves as leave to the neighbouring confectioner. In our price list are quoted over twenty different sorts of Eating Chocolates to select from.

We have just completed an important and extensive addition to our factory which will enable us largely to augment our output, and at the same time increase the efficiency of our manufacturing operations. We trust, therefore, Societies will continue energetically pushing the sale of our products so as to keep our factory in its enlarged state fully occupied.

We have a stock of show cards, handbills, &c, for advertising purposes, with which we shall be happy to supply Societies on application.

## Drapery Department.

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CENTRAL SALEROOM AND WAREHOUSE:

DANTZIC STREET, MANCHESTER.

NEWCASTLE BRANCH SALEROOM AND WAREHOUSE:

WATERLOO STREET, NEWCASTLE-ON-TYNE.

LONDON BRANCH SALEROOM AND WAREHOUSE:

LEMAN STREET, LONDON, E.

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THE especial attention of Societies is called to the above Department, as we feel sure, if they will only give us a fair comparison, they will find we can do as well for them as any other house in the trade. The Stock consists of—

### HOSIERY

OF EVERY KIND AND MAKE.

Wools, Worsted and Yarns (by the best spinners), Linen and Paper Fronts and Collars, Cuffs; Kid, Wool, Lisle, and Silk Gloves; Wool, Union, and Oxford Shirts; Duck Jackets; Men's and Boys' Hats and Caps.

### HABERDASHERY AND SMALLWARES

OF EVERY DESCRIPTION AND MAKE.

Silk and Velvet Buttons, Trimmings, Ribbon Velvets, &c.

### MILLINERY DEPARTMENT.

We beg to call especial attention to this Department, and would ask your hearty support. The Stock is well assorted, and consists of Felt and Straw Hats, Plain and Fancy Straw Bonnets, in all the newest shapes; Ribbons in



Silk, Satin, and Velvet, all shades; Feathers in Ostrich, Fancy Wings, Birds, Ospreys, &c.; French and English Flowers, rich new shades, mounted and unmounted; Silk and Cotton Laces, Spot Nets, Embroidered Crapes, and Leises; Ornaments, newest designs in Jet, Steel, &c.; Silks, Velvets, and Plushes; Steel, Jet, and Gold Millinery Trimmings, newest styles; Trimmings Millinery, Black and Coloured; Children's Millinery, in Hoods, Hats, and Bonnets.

## MANTLES.

We keep a well-assorted Stock, from the best English, French, and German manufacturers.

## FANCY GOODS.

Ladies' and Gents' Scarfs, Ribbons, Laces, Stays, Corsets; Umbrellas in Silk, Alpaca, Gloria, Dagmar, and Satin.

## DRESS DEPARTMENT.

Black and Coloured Merinos, French Twills, Sateens, Scotch and German Plaids, Black and Coloured Silks and Velvets.

Scotch and Yorkshire Shawls, Wool Handkerchiefs, Felt and other Skirts, &c.

Lace, Leno, and Harness Curtains and Blinds, Wool, Damask, &c.

## MANCHESTER DEPARTMENT.

This Department comprises every kind of Scotch, Irish, and Barnsley Linens; Bleached Calicoes, Sheets, and Sheetings; Oxford, Harvard, and other Cotton Shirtings; Silesias, and every class of Dyed and Printed Linings; Prints, Cretonnes, Damasks, Window Hollands, Table Covers, Toilet Quilts, Toilet Covers, Table Baizes, Leathers, &c., &c.

The Stocks are bought from the best manufacturers only, and the finish in all cases is carefully attended to. All Goods are sold under their correct quality and numbers, and the widths and lengths guaranteed. These facts should always be considered when comparing the "Wholesale's" prices with those of other firms.

## GREY DEPARTMENT.

Wigans, Mexicans, and Twills in various widths and qualities; Yorkshire, Lancashire, and Saxony Flannels; Bath, Bury, and Twill Blankets; Bleached and Grey Sheets; Alhambras of every kind and in all sizes; Union and Wool Shirtings, Linseys, Kerseys, Lambskins, Down Quilts, &c.

# Woollen Department,

DANTZIC STREET, MANCHESTER.



## WOOLLENS.

IN THIS DEPARTMENT THERE IS ALWAYS A FINE  
SELECTION OF THE NEWEST STYLES IN

WOOLLEN AND WORSTED COATINGS, TROUSERINGS,

AND SUITINGS

OF THE BEST QUALITY AND VALUE, MANY OF WHICH ARE MADE  
AT OUR OWN MILLS.



## READY-MADES

IN MEN'S, YOUTHS', AND BOYS' GARMENTS,

OF EVERY DESCRIPTION AND PRICE.



## TRIMMINGS.

BLACK AND COLOURED SILESIA'S, STRIPED SILESIA'S AND  
SATEENS,

IN ALL COLOURS AND DESIGNS.

BUCKRAMS, CANVASES, JEANS, POCKETINGS,

BLACK AND COLOURED ITALIANS AND SERGES

AT ALL PRICES.



For choice quality and value this department cannot be  
beaten by any house in the trade, and merits the support  
of every society.

# Furnishing Department,

HOLGATE STREET, MANCHESTER.



ILLUSTRATED CATALOGUE AND PRICE LIST

SENT FREE OF CHARGE TO ANY SOCIETY ON APPLICATION.



THE STOCK IN THIS DEPARTMENT

CONSISTS OF

FURNITURE,

CARPETS, FLOORCLOTHS, &c.,

HARDWARE,

CLOCKS, WATCHES, AND JEWELLERY,

BRUSHES, AND FANCY GOODS.

WE CAN ALSO SUPPLY

GAS ENGINES, GROCERS' MACHINERY, AND EVERY KIND

OF SHOP FITTINGS REQUIRED.

MOST OF

OUR FURNITURE IS NOW MANUFACTURED AT OUR

CABINET WORKS,

AND WE ARE PREPARED TO

ESTIMATE FOR SHOP, OFFICE, AND LIBRARY FIXTURES, &c.

# Crockery Department,

## L O N G T O N .

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OUR Depôt in the Potteries is stocked with a choice selection of goods of the best manufacture suitable for the requirements of societies. At the same time we beg to call your attention to the following advantages we possess over manufacturers :—

### FIRST :

We can supply crates of mixed goods of all kinds—

Earthenware, China, Jet, Rockingham, Glass, Yellow and Brown Ware ; also Fancy Vases, &c.

### SECONDLY :

With the exception of Tea, Toilet, and Dinner Patterns not stocked, we can supply all general articles and goods from our list promptly, which manufacturers cannot continuously do, as they are certain to run out of stock of some kind very often.

### THIRDLY :

We can supply very small quantities of each article—which, with the above-mentioned promptitude, will enable you to keep a very small stock, and place it within the power of the smallest store to keep crockery to advantage.

### FOURTHLY :

By combining our resources of capital with the services of a buyer on the spot we are able to purchase goods from the *best makers*, and supply them on as good terms as can be got by dealing direct with the manufacturers, and in greater variety.

### FIFTHLY :

In dealing direct there is generally a heavy charge for crates, which will be avoided, as we find crates and credit on return as per page 6 in list.

*We have added Sanitary Goods, such as Closets, Lavatory Basins, &c., &c., and can strongly recommend these for price and quality.*

We trust that these considerations will induce every society to add crockery to their other business ; and as we keep a number of crates on hand ready packed, consisting of China, Earthenware, Rockingham, and Jet Teapots, &c., suitable for beginning in this branch of trade, we shall be pleased to forward one immediately to any society which will intimate their willingness to give it a trial. For assortment of crates, &c., see our Price List, free to any society on application, also our Illustrated Book of designs.

N.B.—All orders to be sent direct to Longton.

# Grumpsall Works.

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MANUFACTURERS

OF

Biscuits, Sweets, Jam and Marmalade,  
Dry Soap Powder, &c.

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**Warehouses:**

BALLOON STREET, MANCHESTER;  
WATERLOO STREET, NEWCASTLE-ON-TYNE;  
LEMAN STREET, LONDON, E.;  
AND  
CHRISTMAS STREET, BRISTOL;  
WHERE ALL ORDERS MUST BE SENT.

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*NO* supply some of the requirements of the Retail Stores, this Society established these Works in 1872. By the rules of the Society the custom of the private trader is refused, and none but registered Co-operative Societies are supplied. The Retail Stores, members of the Wholesale Society, are the proprietors of these Works, and, as such, the exclusion of private trade is a regulation made by them. We have, therefore, a just claim upon the Stores that they should support their own Works, whilst we acknowledge that they have a claim upon us to supply a pure and serviceable article, as good and as cheap, of its kind and quality, as can be had elsewhere.

## THE BISCUITS ARE MADE OF THE PUREST MATERIALS,

Nearly all the flour used being of co-operative manufacture. The machinery employed is of the latest style and most perfect character. We have recently made considerable additions in this department—our productive capacity being now thrice as great as it was before. The Biscuits produced are such that we confidently invite comparison, and urgently solicit all Co-operative Societies to give them a trial.

## IN THE MAKING OF SWEETS

We boil the best of sugar (all cane); employ the best skill; use only vegetable colouring matter, all of which is perfectly harmless; and we can confidently challenge analysis. Our Sweets need only be tried to be approved.

## LOZENGES.

Our machinery is of the newest and most approved construction for the making of Lozenges in all the varieties mostly in request. The difference in value between one Lozenge and another depends almost entirely on the quantity, strength, purity, and delicacy of the flavouring used. In these particulars we aim to excel, and we invite comparison. We trust our friends will give this department a trial, and have no doubt the article produced will bear comparison with the productions of the best makers.

## JAMS, JELLIES, AND MARMALADE

Are made of the best fruit procurable, and Cane Sugar is used exclusively.

## CITRATE OF MAGNESIA, AND SHERBET, OR LEMON KALI,

Are sometimes pressed by makers upon the attention of the Stores as "a special cheap quality." They can, however, be made "cheap" only by keeping out the Acids, which are expensive, and putting in more sugar. This sort of cheapness makes the article more agreeable to some tastes, but certainly much less useful and less costly. We aim at making the C.W.S. Citrate and Sherbet the best value.

## "WHEATSHEAF" BAKING POWDER,

In 1oz. and 2oz. Packets,

Has been tested in practical use with that of the best makers, and with favourable results.

Several cases have recently occurred in which retail grocers have been heavily fined, in addition to the disagreeable public exposure, in consequence of selling Baking Powder containing a large proportion of Alum instead of Tartaric Acid. Our friends will find by reference to the C.W.S. Price List, that Alum costs 9s. per cwt., and Tartaric Acid costs 140s. per cwt. Thus, to make money, the manufacturer produces an article which, used in the making of bread or other eatables, yields a food which is injurious to health.

## C.W.S. "WHEATSHEAF" BAKING POWDER

DOES NOT CONTAIN ANY ALUM.

## C.W.S. "WHEATSHEAF" BLACK LEAD,

In 1oz. Oblong Blocks, and 1oz. and 2oz. Round Blocks.

We Block the very best of Lead, and our produce cannot be excelled in the brilliancy and polish it imparts. Our Loose Black Lead, in 1oz. and 2oz. packets, we can confidently recommend.

## DRY SOAP.

In the manufacture of Dry Soap it is usual to introduce cheap ingredients which have no cleansing properties, and only serve to increase the bulk and the weight, thus catching the unwary by giving them for their money a large packet of small value. We can assure our friends that we use no ingredients which have not valuable detergent or cleansing properties, and our Dry Soap will bear comparison with that of the best makers. This article has been subjected to the test of analysis by the Manchester City Analyst, and his figures show that for detergent value or cleansing power the C.W.S. Dry Soap Powder stands in front when compared with the analysis of three other samples from makers of highest repute and longest standing.

# Wheat Sheaf Works,

WIGSTON ROAD, LEICESTER.



## Warehouses:

BALLOON STREET, MANCHESTER;

WATERLOO STREET, NEWCASTLE-ON-TYNE;

LEMAN STREET, LONDON, E.; AND CHRISTMAS STREET, BRISTOL.

## Salerooms:

LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN, BIRMINGHAM,  
NORTHAMPTON, AND CARDIFF.



THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED  
MANUFACTURE ALMOST EVERY KIND OF

## BOOTS AND SHOES

AT THE ABOVE WORKS, IN

HAND SEWN, GOODYEAR WELTS,

MACHINE SEWN, FAIR STITCHED, SEW ROUNDS,  
RIVETTED, STANDARD SCREWED,

WOOD PEGGED, &c., &c.

The highest Trade Union Wages paid.

The very best materials used.

Work carried on under best Sanitary Conditions.

Trade rapidly Developing, as the Goods give every satisfaction.

The wants of every class of the community supplied.

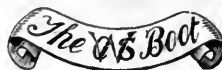
The Fitting of the Goods are unequalled for Comfort, and the  
Quality unrivalled for Durability.

HONEST GOODS,

HONEST WAGES,

HONEST PRICES.

WE CAN HIGHLY RECOMMEND THESE  
NAMED GOODS:—





# LADIES' AND GENT'S CLOTH GAITERS

MADE IN

EVERY SHAPE AND SHADE OF CLOTH.

Samples on Application to Manchester, Newcastle, and London.

CO-OPERATIVE  
WHOLESALE SOCIETY LTD

Manufacturers of

CLOTH AND LEATHER

WHEATSHEAF GAITERS

Wheat Sheaf Brand

SIZE

ALL OUR PRODUCTIONS BEAR THE SOCIETY'S  
TRADE MARK.

## IN OUR ILLUSTRATED LIST

We give the numbers of those usually kept in stock at Manchester, as well as at the branch warehouses in Newcastle and London. Societies requiring any kind of goods not mentioned in our *List*, we shall be glad to make for them upon receiving instructions.

Although there is a growing demand for Low-priced Goods, which we endeavour to meet, we have in no case departed from the principle which has been adhered to since the commencement of these Works—of always using material of known excellence, and *discarding the use of all substitutes for honest leather.*

## The Continued and Growing Demand for our Productions

## WARRANTS US IN STATING THAT

for quality and price they are equal, if not superior, to anything supplied by the general trade. In addition to the wholesale trade, we are now making about three hundred pairs of Bespoke and Measured Work weekly, and every effort is made to supply these orders promptly; but many delays, misfits, and mistakes would be avoided if Societies would only follow our instructions for measurement. **A draft of the foot should in all cases be taken,** and sent with the correct measurement. Societies should use our Order Books specially arranged for this department, which are only 10d. each, and can be obtained at either the Central or Branch Warehouses. **Cut Soles** for Repairing purposes supplied in any quantity or quality. Price List and Samples sent on application.

Orders for Regular Stock should be sent to

1, BALLOON STREET, MANCHESTER;

WATERLOO STREET, NEWCASTLE-ON-TYNE;

LEMAN STREET, LONDON, E.;

And, to prevent delay, orders for

BESPOKE OR MEASURED WORK

MUST BE SENT TO

**WHEAT SHEAF WORKS, LEICESTER, direct.**

*Co-operators and Trade Unionists wishing to promote work under the best conditions, should ask for*

**WHEATSHEAF BRAND OF BOOTS & SHOES**

AND TAKE NO OTHER.

# Beckmondwike Boot & Shoe Works.

## Warehouses :

BALLOON STREET, MANCHESTER ;

WATERLOO STREET, NEWCASTLE-ON-TYNE ;

LEMAN STREET, LONDON, E. ; CHRISTMAS STREET, BRISTOL.

## Salerooms :

LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN, BIRMINGHAM,  
NORTHAMPTON, AND CARDIFF.

Orders must be addressed either to Central Office, or to the Branch  
Establishments at Newcastle or London.

**T**HESE Works having been considerably enlarged, we are now in a position to  
double our production, and we appeal to societies to give us their support.

The Goods we make are **Men's and Youths' Strong Nailed**, suitable for  
miners, quarrymen, farm labourers, masons, joiners, railway servants, &c. We  
also make in **Men's and Boys'** a quantity of **Medium Strength** with **Smooth  
Bottoms**, with nails driven up, suitable for a working boot in lighter  
occupations.

We also make **Women's Strong Laced Mill Boots**. In the manufacture of  
our goods we pay special attention to the selection of material used for the  
inner sole, which is the foundation of a strong boot, and on which depends  
entirely the wear, and when re-soled and heeled gives the repairer a good  
foundation to work upon. This very important feature applies to the whole of  
the goods we make, from the lowest priced ones upwards.

We desire it to be fully understood that none of our manufactures contain  
paper or composition leather board, but solid leather ; and therefore, if in some  
instances our prices are found to be somewhat higher than goods of similar  
appearance, you may rely upon it the difference of the price is in the quality.

## CURRYING DEPARTMENT.

The above Department is now in full working order, and we are able to supply  
societies with any of the following Goods:—

LEVANT HIDES.	MEMEL HIDES.	SATIN KIPS.
" KIPS.	" HIDE BUTTS.	" KIP SHOULDERS.
" KIP SHOULDERS.	" KIPS.	WAXED HIDE BUTTS.
" HORSE SHOULDERS.	SATIN HIDES.	" KIP BUTTS.
" " BELLIES.	" HIDE SHOULDERS.	" E. J. CALF.

# Durham Soap Works,

GILESGATE.

## Salerooms and Warehouses:

BALLOON STREET, MANCHESTER;

WATERLOO STREET, NEWCASTLE-ON-TYNE;

LEMAN STREET, LONDON, E.;

CHRISTMAS STREET, BRISTOL;

LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN, BIRMINGHAM,  
NORTHAMPTON, AND CARDIFF.

THESE Works were established October, 1874, to enable the Society to supply its members with a pure article. We can, without fear of contradiction, say that the Soap supplied from these Works is equal to any supplied by the best manufacturers, combining all the qualities of a substantial cleaning agency, and being manufactured from the very best raw material.

We supply the following qualities:

WHEATSHEAF PALE	WHITE WINDSOR
GOLDEN PALE	COLD WATER
FIRST "	BEST EXTRA PALE
SECOND "	X "
XX "	FINE "
GOLDEN WINDSOR	BEST MOTTLED
PALE "	SECOND "

HONEY SOAP, 1lb.,  $\frac{1}{2}$ lb., and  $\frac{1}{4}$ lb. Tablets.

ALMOND " " " " " " " " " " " "

## SPECIALITIES:—

CARBOLIC SOAP.	PARAFFIN SOAP.
CONGRESS SOAP (in Tablets).	"C. W. S. CLEANSER."
WHEATSHEAF TABLETS.	LILY SOAP.

ALL CARRIAGE PAID.

*For prices, see Society's Weekly Price List. Samples will be sent on application.*

We are convinced that a much larger trade might be done if societies would only give this Soap a fair trial. The Co-operative Societies in the Newcastle district, who obtain their supplies chiefly from this source, find the Soap gives entire satisfaction to their members. We therefore ask societies to support their own production, instead of obtaining their supply from other makers, who have travellers ever on the road waiting upon store managers seeking to influence them to buy their Soap, and not that of their own manufacture.

**CO-OPERATORS, SUPPORT CO-OPERATIVE PRODUCTION.**

# Livingstone Mills,

BATLEY, YORKSHIRE.

## WOOLLEN MANUFACTURERS.

Salerooms and Warehouses:

1, BALLOON STREET, MANCHESTER;  
WATERLOO STREET, NEWCASTLE-ON-TYNE;  
AND LEMAN STREET, LONDON, E.

Orders should be sent either direct to the Central Office,  
1, Balloon Street, Manchester, or to the Branches, Waterloo  
Street, Newcastle, and Leman Street, London.

## WOOLLENS AND WORSTEDS.

**T**HE Productions of our Batley Mill are not to be surpassed in either  
Quality, Style, or Price.

We are now manufacturing some of the choicest patterns in

**FANCY WORSTED TROUSERINGS AND TWEEDS.**

Our **INDIGO BLUE SERGES AND WOADED BLACK WORSTED  
COATINGS** are so well known throughout the Stores as to need no further  
description.

**We have lately added to our Weaving Plant some of the newest and  
most efficient Fast Looms and Beaming Machinery, so that we are now  
in a position to meet satisfactorily the increasing demands of our  
customers.**

PATTERN CARDS WILL BE SENT ON APPLICATION.

**CO-OPERATORS! Ask at your STORES for BATLEY CLOTHS.**

*See that you get them, and don't be persuaded to take any other.*

# Productive Societies

FOR WHICH THE  
CO-OPERATIVE WHOLESALE SOCIETY ARE AGENTS.



## **The Agricultural and Horticultural Association Limited.**

Reliable Farm and Garden Seeds; special Manures for Fruit, Vegetable, and Garden Crops.



## **The Airedale Manufacturing Society Limited.**

Manufacturers of Black Alpaca Lustres, Black Brilliantines, Black and Coloured French Twills, Mohair Glacés, Black and Coloured Persian, Russel and Cable Cords, Wool Serges, Black Orleans, Black and Coloured Italians, Black and Coloured Figures, Mottles, Mixtures, Stripes, &c., &c.



## **The Coventry Co-operative Watch Manufacturing Society Limited.**

The Watches supplied by this Society we can well recommend as being of uniform good quality, and it engages to keep them in good going order for twelve months from date of purchase. We trust that individuals, through their societies, will give us their orders, so that we may do a larger trade in this department. Watches, from £2. 10s. to £25 each.



## **The Dudley Nail Manufacturing Society Limited.**



## **The Dudley Productive Co-operative Society Limited.**

Manufacturers of all kinds of Galvanised Goods, Buckets, Nails, &c.



## **The Eccles Industrial Manufacturing Society Limited.**

Manufacturers of Toilet, Alhambra, and Damask Quilts, by hand and power; also Twill Sheetings, all of the best quality, and in tastily-arranged patterns.

Having repeatedly compared the Quilts produced by the Eccles Manufacturing Society with the Quilts made by other firms, we are thoroughly satisfied that those made by them are equal, and, when cost is considered, superior, to those sold by other makers. All Toilet and Honeycomb Quilts sold by the Co-operative Wholesale Society are made by the Eccles Manufacturing Society, and all members, when purchasing, should ask for the Eccles Quilts, and insist upon having them.

**The Hebden Bridge Fustian Manufacturing Society Limited.**

Manufacturers of Cords, Moles, Velveteens, Imperials, Diagonals, Sateens, Twills, &c., in every variety and colour; Fustian Clothing, ready-made and to order. Samples and prices on application.

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**The Heckmondwike Manufacturing Society Limited.**

Manufacturers of Carpets, Horse Cloths, Blankets, &c.

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**The Lancashire and Yorkshire Co-operative Productive Society Limited.**

Manufacturers of Flannels, plain and coloured, of guaranteed purity and excellence of manufacture, combined with reasonable prices. Societies ordering sufficiently large may, if desired, have the goods finished to suit their special markets.

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**The Leek Silk Twist Manufacturing Company Limited.**

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**The Leicester Elastic Web Manufacturing Society Limited.**

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**The Leicester 2nd Hosiery Manufacturing Society Limited.**

We are now their sole agents, and keep a stock of all classes of goods made by them.

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**The Midland Nail Makers' Association Limited.**

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**The Paisley Manufacturing Society Limited.**

Manufacturers of Saxony Wool Shawls and Plaids, in plain and fancy checks, Saxony Wool Handkerchiefs and Scarfs, Dress Tartans, and Twilled and Plain Wool Shirtings. A large variety of patterns to select from.

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**The Rochdale Pioneers' Society Limited.**

Manufacturers of Tobacco, Snuffs, &c.

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**The Sheepshed Hosiery Manufacturing Society Limited.**

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**The Sheffield Co-operative Cutlery Manufacturing Society Limited.**

# Regular Steam Service

BETWEEN

## GARSTON (LIVERPOOL) & ROUEN.

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### OFFICES :

CENTRAL : BALLOON STREET, MANCHESTER.

LIVERPOOL : 7, VICTORIA STREET.

GARSTON : NEW DOCK. ROUEN : 2, RUE JEANNE D'ARC.

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## “ U N I T Y ”

### OR OTHER STEAMER DESPATCHED FORTNIGHTLY.

EXTRA STEAMERS TO SUIT THE REQUIREMENTS OF THE TRADE.

Goods carried at through rates, with quick despatch, between Liverpool, Manchester, Birmingham, and North of England Towns, and Paris, Lyons, Beauvais, Lille, and North and East of France.

For Rates of Freight and other information, apply to the Society's offices, as above.

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On the outward voyages from Garston, in addition to sundry goods, the shipments consist largely of caustic soda, bleaching powder, and other chemicals from Widnes and St. Helens districts—machinery from Manchester and Bolton and neighbouring towns—American and East Indian cotton which has arrived at Liverpool and been ordered for shipment to Rouen, the principal seat of cotton industry in France. There are also considerable shipments of copper. On arrival of the goods at Garston they are taken directly alongside our steamers, in the railway wagons, and then by means of powerful hydraulic cranes they are transferred from the wagons to the hold of the steamers. By this means shippers may rely on the shipments being effected with prompt despatch, and we avoid the risk of damage which sometimes occurs when cartage is employed.

At Rouen the steamers are berthed in close proximity to the railway line, so that goods can be landed from the steamers direct on to the railway wagons. Or when consignees order goods to be forwarded from Rouen by water, the river barges are loaded alongside the steamer, and these are towed by powerful steam tugs up the Seine to Paris. Providing no exceptional delay occurs, the transit up the river occupies little over two days.

On the return journey from Rouen the steamer's cargo principally consists of loaf sugar coming from Paris, also sugar in bags, chemicals, dye stuffs, flour, field seeds, metals, and besides there are sundry goods in cases, such as glass-ware, toys, haberdashery, and *articles de Paris*.

In fine weather the sea voyage between Garston and Rouen occupies about three days. No effort is spared to ensure the steamer being despatched punctually from each port on the appointed dates, and as by this means a regular service is maintained, we are favoured with a large traffic from general shippers.



# Goole and Calais Line of Steamers.

CENTRAL OFFICES : 1, BALLOON STREET, MANCHESTER.

GOOLE OFFICES : STANHOPE STREET.

CALAIS OFFICES : RUE DE MADRID.

## Weekly Service between Goole & Calais.

THE new powerful and fast steamships "**PIONEER**," "**PROGRESS**," or other steamer, will (weather and other casualties permitting) sail regularly between Goole and Calais, leaving Goole every **Wednesday** and Calais every **Saturday**. This line is in direct communication at Goole with the L. & Y. and N. E. Railway Companies, whose wagons can be loaded direct from the steamers, thereby ensuring despatch with the least risk of damage to the goods carried by the line.

The Aire and Calder Navigation Company run their canal boats alongside the Company's steamers, so that all who prefer their goods carried by canal can have them loaded direct into the Aire and Calder Company's boats and *vice versa*.

At Calais the steamers are berthed near the Custom House and opposite the goods warehouse of the North of France Railway Company, where the goods can be stored waiting the arrival of the steamers.

The North of France Railway Company have a line of rails laid to the place where the steamers are berthed, so that goods entrusted to this line can be safely and quickly despatched to their destination. The Goole and Calais route is the best and cheapest between the great manufacturing centres of the North of England and those of the North of France; and shippers in those districts will find it to their advantage to give this line a trial.

GOODS ARE CARRIED AT THROUGH RATES  
FROM ANY PART OF THE UNITED KINGDOM TO THE PRINCIPAL CITIES  
OF FRANCE AND THE CONTINENT.

*For Rates of Freight and other information apply as above.*

# Goole & Hamburg Line of Steamers.

CENTRAL OFFICES: 1, BALLOON STREET, MANCHESTER.

GOOLE OFFICES: STANHOPE STREET.

HAMBURG BROKER: D. FUHRMANN (NISSLE AND GÜNTHER SUCCESSOR),  
DOVENHOF, HAMBURG.

## Regular Service between GOOLE & HAMBURG.

THE POWERFUL AND FAST STEAMSHIPS

**"LIBERTY," "EQUITY," and "FEDERATION,"**

OR OTHER STEAMERS,

WILL (WEATHER AND OTHER CASUALTIES PERMITTING) SAIL REGULARLY  
BETWEEN GOOLE AND HAMBURG,

**LEAVING EACH PORT TWICE A WEEK.**

*Extra Steamers to suit the requirements of the Trade.*

This line is in direct communication at Goole with the L. and Y. and N. E. Railway Companies, whose wagons can be loaded direct from the steamer, without the risk or expense of cartage. This is of great importance to shippers, as it ensures a quick delivery of their goods in a clean and undamaged condition.

The Aire and Calder Navigation Company run their canal boats alongside the Company's steamers, so that all who prefer their goods carried by canal can have them loaded direct into the Aire and Calder Company's boats, and *vice versa*.

At Hamburg the steamers are berthed alongside the warehouses of the Railway Company, where the goods can be stored waiting the arrival of the steamers.

GOODS ARE CARRIED AT THROUGH RATES  
FROM ANY PART OF THE UNITED KINGDOM TO THE PRINCIPAL CITIES  
OF GERMANY AND THE CONTINENT.

*For Rates of Freight and other information apply as above.*

## MEETINGS AND OTHER COMING EVENTS

### IN CONNECTION WITH THE SOCIETY IN 1894.

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- Jan. 27—SATURDAY....Nomination Lists: Last day for receiving.
- Feb. 27—TUESDAY ....Voting Lists: Last day for receiving.
- Mar. 3—SATURDAY....Newcastle and London Branch and Divisional  
Quarterly Meetings.
- Mar. 10—SATURDAY....General Quarterly Meeting—Manchester.
- Mar. 24—SATURDAY....Quarter Day.
- April 28—SATURDAY....Nomination Lists: Last day for receiving.
- May 29—TUESDAY ....Voting Lists: Last day for receiving.
- June 2—SATURDAY....Newcastle and London Branch and Divisional  
Quarterly Meetings.
- June 9—SATURDAY....General Quarterly Meeting—Manchester.
- June 23—SATURDAY....Quarter Day.
- July 28—SATURDAY....Nomination Lists: Last day for receiving.
- Aug. 28—TUESDAY ....Voting Lists: Last day for receiving.
- Sept. 1—SATURDAY....Newcastle and London Branch and Divisional  
Quarterly Meetings.
- Sept. 8—SATURDAY....General Quarterly Meeting—Manchester.
- Sept. 22—SATURDAY....Quarter Day.
- Oct. 27—SATURDAY....Nomination Lists: Last day for receiving.
- Nov. 27—TUESDAY ....Voting Lists: Last day for receiving.
- Dec. 1—SATURDAY....Newcastle and London Branch and Divisional  
Quarterly Meetings.
- Dec. 8—SATURDAY....General Quarterly Meeting—Manchester.
- Dec. 22—SATURDAY....Quarter Day.

# PRINCIPAL EVENTS IN CONNECTION WITH THE CO-OPERATIVE WHOLESALE SOCIETY

SINCE ITS COMMENCEMENT.

YEAR.	DAY.	EVENTS.
1863	.. Aug. 11	.. Co-operative Wholesale Society enrolled.
1864	.. Mar. 14	.. Co-operative Wholesale Society commenced business.
1866	.. April 24	.. Tipperary Branch opened.
1868	.. June 1	.. Kilmallock Branch opened.
1869	.. Mar. 1	.. Balloon Street Warehouse opened.
"	.. July 12	.. Limerick Branch opened.
1871	.. Nov. 26	.. Newcastle-on-Tyne Branch opened.
1872	.. July 1	.. Manchester Boot and Shoe Department commenced.
"	.. Oct. 14	.. Bank Department commenced.
1873	.. Jan. 13	.. Crumpsall Works purchased
"	.. April 14	.. Armagh Branch opened.
"	.. June 2	.. Manchester Drapery Department established.
"	.. July 14	.. Waterford Branch opened.
"	.. Aug. 4	.. Cheshire Branch opened.
"	.. " 4	.. Leicester Works purchased.
"	.. " 16	.. Insurance Fund established.
"	.. Sept. 15	.. Leicester Works commenced.
1874	.. Feb. 2	.. Tralee Branch opened.
"	.. Mar. 9	.. London Branch established.
"	.. Oct. 5	.. Durham Soap Works commenced.
1875	.. April 2	.. Liverpool Purchasing Department commenced.
"	.. June 15	.. Manchester Drapery Warehouse, Dantzic Street, opened.
1876	.. Feb. 14	.. Newcastle Branch Buildings, Waterloo Street, opened.
"	.. " 21	.. New York Branch established.
"	.. May 24	.. S.S. "Plover" purchased.
"	.. July 16	.. Manchester Furnishing Department commenced.
"	.. Aug. 5	.. Leicester Works first Extensions opened.
1877	.. Jan. 15	.. Cork Branch established.
"	.. Oct. 25	.. Land in Liverpool purchased.
1879	.. Feb. 21	.. S.S. "Pioneer," Launch of.
"	.. Mar. 24	.. Rouen Branch opened.
"	.. " 29	.. S.S. "Pioneer," Trial trip.
"	.. June 30	.. Goole Forwarding Department opened.
1880	.. Jan. 30	.. S.S. "Plover" sold.
"	.. Aug. 14	.. Heckmondwike Boot and Shoe Works commenced.
"	.. Sept. 27	.. London Drapery Department commenced in new premises, Hooper Square.
1881	.. June 6	.. Copenhagen Branch opened.

# PRINCIPAL EVENTS IN CONNECTION WITH THE CO-OPERATIVE WHOLESALE SOCIETY

SINCE ITS COMMENCEMENT.—CONTINUED.

YEAR.	DAY.	EVENTS.
1880 ..	July 27 ..	S.S. "Cambrian" purchased.
1882 ..	Oct. 31 ..	Leeds Saleroom opened.
" ..	Nov. 1 ..	London Tea and Coffee Department commenced.
1883 ..	July 21 ..	S.S. "Marianne Briggs" purchased.
1884 ..	April 7 ..	Hamburg Branch commenced.
" ..	May 31 ..	Leicester Works second Extensions opened.
" ..	June 25 ..	Newcastle Branch—New Drapery Warehouse opened.
" ..	Sept. 13 ..	Commemoration of the Society's Twenty-first Anniversary at Newcastle-on-Tyne and London.
" ..	" 20 ..	Commemoration of the Society's Twenty-first Anniversary at Manchester.
" ..	" 29 ..	Bristol Depot commenced.
" ..	Oct. 6 ..	S.S. "Progress," Launch of
1885 ..	Dec. 30 ..	Fire—Tea Department, London.
1886 ..	April 22 ..	Nottingham Saleroom opened.
" ..	Aug. 25 ..	Longton Crockery Depot opened.
" ..	Oct. 12 ..	S.S. "Federation," Launch of.
1887 ..	Mar. 14 ..	Batley Mill commenced.
" ..	June 1 ..	S.S. "Progress" damaged by fire at Hamburg.
" ..	July 21 ..	Manchester—New Furnishing Warehouse opened.
" ..	Aug. 29 ..	Heckmondwike—Currying Department commenced.
" ..	Nov. 2 ..	London Branch—New Warehouse opened.
" ..	" 2 ..	Manufacture of Cocoa and Chocolate commenced.
1888 ..	July 7 ..	S.S. "Equity," Launch of.
" ..	Sept. 8 ..	S.S. "Equity," Trial trip.
" ..	" 27 ..	S.S. "Cambrian" sold.
" ..	Oct. 14 ..	Fire—Newcastle Branch
1889 ..	Feb. 18 ..	Enderby Extension opened.
" ..	Nov. 11 ..	Longton Depot New Premises opened.
1890 ..	Mar. 10 ..	S.S. "Liberty," Trial trip.
" ..	Oct. 22 ..	Northampton Saleroom opened.
1891 ..	April 18 ..	Dunston Corn Mill opened.
" ..	Oct. 22 ..	Cardiff Saleroom opened.
" ..	Nov. 4 ..	Leicester New Works opened.
" ..	" 16 ..	Aarhus Branch opened.
1892 ..	May 5 ..	Birmingham Saleroom opened.
1893 ..	" 8 ..	Broughton Cabinet Factory opened.

## LIST OF TELEGRAPHIC ADDRESSES.

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CENTRAL, MANCHESTER:	"WHOLESALE, MANCHESTER."
NEWCASTLE BRANCH:	"WHOLESALE, NEWCASTLE-ON-TYNE."
LONDON BRANCH:	"CO-OPERATIVE, LONDON."
BRISTOL DEPÔT:	"WHOLESALE, BRISTOL."
LIVERPOOL OFFICE AND WAREHOUSE:	"WHOLESALE, LIVERPOOL."
LEEDS SALE AND SAMPLE ROOMS:	"WHOLESALE, LEEDS."
CRUMPSALL WORKS:	"BISCUIT, MANCHESTER."
CARDIFF SALEROOM:	"WHOLESALE, CARDIFF."
LEICESTER SHOE WORKS:	"WHOLESALE, LEICESTER."
HECKMONDWIKE SHOE WORKS:	"WHOLESALE, HECKMONDWIKE."
BATLEY WOOLLEN MILL:	"WHOLESALE, BATLEY."
LEEDS READY-MADES FACTORY:	"SOCIETY, LEEDS."
LONGTON CROCKERY DEPÔT:	"WHOLESALE, LONGTON (STAFF.)."
SOAP WORKS, DURHAM:	"WHOLESALE, DURHAM."
CORN MILL, DUNSTON-ON-TYNE:	"WHOLESALE, DUNSTON, GATESHEAD."
NORTHAMPTON SALEROOM:	"WHOLESALE, NORTHAMPTON."

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## TELEPHONIC COMMUNICATION.

Our Premises in the following towns are directly connected with the Local Telephone System:—

	NOS.
MANCHESTER—GENERAL OFFICES.....	802
" " " ".....	†856
" DRAPERY DEPARTMENT.....	908
" FURNISHING DEPARTMENT.....	1755
CRUMPSALL—SUB TO MANCHESTER GENERAL OFFICES.	
BROUGHTON—CABINET WORKS.....	†814
NEWCASTLE .....	1260
" .....	*284
LONDON—GROCERY AND PROVISION.....	2385
" DRAPERY .....	2384
" TEA DEPARTMENT .....	2217
BRISTOL .....	40
LIVERPOOL .....	397
GARSTON.....	2706
GOOLE .....	2
LEICESTER.....	235
LONGTON.....	416
DUNSTON.....	1261

\* Post-office System. † New. All others National Telephone Company.

## CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

## PAST MEMBERS OF GENERAL COMMITTEE.

NAME.	ADDRESS.	ELECTED.	RETIRED.
* A. Greenwood ..	Rochdale.....	1863 August ..	1870 August.
† Councillor Smithies ..	Rochdale.....	1863 August ..	1869 May.
§ James Dyson .....	Manchester .....	1863 August ..	1867 May.
Edward Hooson .....	Manchester ..	1863 August ..	1864 March.
John Hilton .....	Middleton .....	1866 May.....	1869 Dec.
* James Crabtree .....	Heckmondwike ..	1863 August ..	1868 Nov.
		1863 August ..	1864 March.
		1865 Nov. ....	1874 May.
		1885 Dec. ....	1886 March.
Joseph Thomasson....	Oldham .....	1886 June ....	1889 Dec.
		1863 August ..	1864 March.
		1866 May.....	1869 Nov.
Charles Howarth ....	Heywood .....	1864 March ..	1866 October.
J. Neild .....	Mossley .....	1864 March ..	1865 Nov.
Thomas Cheetham....	Rochdale .....	1867 Nov. ....	1868 Nov.
§ E. Longfield .....	Manchester .....	1864 March ..	1865 Nov.
† J. M. Percival.....	Manchester .....	1867 May.....	1867 Nov.
		1868 Feb.....	1868 May.
		1870 Feb.....	1872 August.
Isaiah Lee .....	Oldham .....	1876 March ..	1882 June.
§ D. Baxter .....	Manchester .....	1867 Nov. ....	1868 Nov.
J. Swindells.....	Hyde.....	1868 May.....	1871 May.
T. Sutcliffe .....	Todmorden .....	1868 Nov. ....	1869 Nov.
† James C. Fox.....	Manchester .....	1868 Nov. ....	1869 Nov.
W. Marcroft .....	Oldham .....	1868 Nov. ....	1871 May.
Thomas Pearson ....	Eccles .....	1869 May.....	1871 May.
R. Holgate .....	Over Darwen .....	1869 Nov. ....	1871 Nov.
A. Mitchell .....	Rochdale .....	1869 Nov. ....	1871 Nov.
W. Moore.....	Batley Carr.....	1870 August ..	1870 Nov.
† Titus Hall .....	Bradford .....	1870 Nov. ....	1871 August.
		1871 May.....	1874 Dec.
		1877 June ....	1885 Dec.
B. Hague .....	Barnsley .....	1871 May.....	1873 May.
		1874 Dec. ....	1884 Sept.
Thomas Shorrocks....	Over Darwen .....	1871 May.....	1884 Sept.
† R. Allen .....	Oldham .....	1871 Nov. ....	1871 Nov.
Job Whiteley .....	Halifax .....	1871 August ..	1877 April.
		1871 August ..	1872 Feb.
† Thomas Hayes .....	Failsworth .....	1873 Feb.....	1874 Feb.
Jonathan Fishwick ..	Bolton .....	1871 Nov. ....	1873 August.
J. Thorpe .....	Halifax .....	1871 Nov. ....	1872 Feb.
† W. Johnson.....	Bolton .....	1872 Feb.....	1873 Feb.
		1872 Feb.....	1876 June.
		1877 June ....	1885 March.
§ H. Whiley .....	Manchester .....	1872 August ..	1874 Feb.
		1874 May.....	1876 March.

\* Held Office as President.

† Held Office as Secretary and Treasurer.

‡ " " Secretary.

§ " " Treasurer.

PAST MEMBERS OF GENERAL COMMITTEE.—*Continued.*

NAME.	ADDRESS.	ELECTED.	RETIRED.
J. Butcher .....	Banbury .....	1873 May.....	1873 August.
H. Atkinson .....	Blaydon-on-Tyne ..	1873 August ..	1874 Dec.
J. F. Brearley .....	Oldham .....	1874 Feb.....	1874 Dec.
Robert Cooper.....	Accrington .....	1874 Feb.....	1876 June.
H. Jackson .....	Halifax .....	1874 Dec. ....	1876 June.
J. Pickersgill .....	Batley Carr .....	1874 Dec. ....	1877 March.
W. Barnett .....	Macclesfield .....	1874 Dec. ....	1882 Sept.
W. Nuttall .....	Oldham ..	1876 June .....	1877 Dec.
S. Lever .....	Bacup .....	1876 Sept. ....	1885 Sept.
F. R. Stephenson ....	Halifax .....	1886 March.....	1888 May.
R. Whittle .....	Crewe .....	1876 Sept. ....	1877 March.
R. Whittle .....	Crewe .....	1877 Dec. ....	1886 March.
Joseph Mc.Nab .....	Hyde .....	1883 Dec. ....	1886 March.
James Hilton .....	Oldham .....	1884 Sept. ....	1890 January.
Samuel Taylor .....	Bolton .....	1885 Sept. ....	1891 Dec.
William P. Hemm....	Nottingham .....	1888 Sept. ....	1889 August.

## \* PAST MEMBERS OF NEWCASTLE BRANCH COMMITTEE.

NAME.	ADDRESS.	ELECTED.	RETIRED.
George Dover .....	Chester-le-Street ..	1874 Dec. ....	1877 Sept.
Humphrey Atkinson..	Blaydon-on-Tyne ..	1874 Dec. ....	1879 May.
† James Patterson ...	West Cramlington..	1874 Dec. ....	1877 Sept.
John Steel .....	Newcastle-on-Tyne..	1874 Dec. ....	1876 Sept.
William Green .....	Durham .....	1874 Dec. ....	1891 Sept.
Thomas Pinkney ....	Newbottle .....	1874 Dec. ....	1875 March.
† John Thirlaway .....	Gateshead .....	1876 Dec. ....	1892 May.
William Robinson ....	Shotley Bridge ....	1877 Sept. ....	1884 June.
William J. Howat ....	Newcastle-on-Tyne..	1877 Dec. ....	1883 Dec.
J. Atkinson.....	Wallsend .....	1883 Dec. ....	1890 May.
George Fryer .....	Cramlington .....	1883 Dec. ....	1887 Dec.
Matthew Bates ..	Newcastle-on-Tyne...	1884 June ....	1893 June.
Richard Thompson ..	Sunderland .....	1874 Dec. ....	1893 Sept.
George Scott .....	Newbottle .....	1879 May.....	1893 Dec.

## \* PAST MEMBERS OF LONDON BRANCH COMMITTEE.

NAME.	ADDRESS.	ELECTED.	RETIRED.
J. Durrant .....	Arundel .....	1874 Dec. ....	1875 Dec.
John Green .....	Woolwich .....	1874 Dec. ....	1876 Dec.
† Thomas Fowe .....	Buckfastleigh .....	1874 Dec. ....	1878 March.
† William Strawn .....	Sheerness.....	1875 Dec. ....	1882 March.
Frederick Lamb.....	Banbury .....	1876 Dec. ....	1888 Dec.
F. A. Williams .....	Reading .....	1882 June ....	1886 Sept.
J. J. B. Beach.....	Colchester .....	1886 Dec. ....	1888 Dec.

\* Newcastle and London Branch Committees constituted December, 1874.

† Held Office as Secretary.



# CO-OPERATIVE WHOLESALE SOCIETY LIMITED.



MEMBERS OF GENERAL AND NEWCASTLE  
AND LONDON BRANCH COMMITTEES WHO HAVE DIED  
DURING TIME OF OFFICE.

NAME.	ADDRESS.	DATE OF DEATH.
GENERAL.		
Edward Hooson .....	Manchester .....	December 11th, 1869.
Robert Allen .....	Oldham .....	April 2nd, 1877.
Richard Whittle .....	Crewe .....	March 6th, 1886.
Samuel Lever .....	Bacup .....	May 18th, 1888.
William P. Hemm ....	Nottingham .....	August 21st, 1889.
James Hilton .....	Oldham .....	January 18th, 1890.
Samuel Taylor .....	Bolton .....	December 15th, 1891.
NEWCASTLE.		
J. Atkinson .....	Wallsend .....	May 25th, 1890.
William Green .....	Durham .....	September 9th, 1891.
John Thirlaway .....	Gateshead .....	May 1st, 1892.
LONDON.		
J. J. B. Beach .....	Colchester .....	December 21st, 1888.

# PROGRESS FROM COMMENCEMENT, IN

YEAR ENDING	£5 Shares taken up	No. of Members belonging to our Shareholders	CAPITAL.						Net Sales.
			Shares.	Loans and Deposits.	Trade and Bank Reserve Fund.	Insurance Fund.	Reserved Expenses.	Total.	
			£	£	£	£	£	£	£
Oct. 1864 (30 weeks) .....	....	18,337	2,455	Included in	....	....	..	2,455	51,857
" 1865 .....	....	24,005	7,182	Shares.	82	....	..	7,182	120,754
" 1866 .....	....	31,030	10,968	14,355	682	....	..	11,050	175,489
Jan. 1868 (65 weeks) .....	....	59,349	11,276	16,059	1,115	....	..	26,313	331,744
" 1869 .....	....	74,737	14,888	22,822	1,280	....	..	32,062	412,240
" 1870 .....	....	79,245	16,558	22,822	1,280	....	..	40,658	507,217
" 1871 (53 weeks) .....	....	89,880	19,015	22,822	2,826	....	..	44,164	677,784
" 1872 .....	5,835	114,588	24,410	25,768	1,910	....	..	52,068	758,764
" 1873 .....	6,949	134,276	31,952	112,589	2,916	....	..	146,857	1,159,182
" 1874 .....	13,899	168,985	48,126	147,949	1,618	2,356	..	200,044	1,636,950
" 1875 .....	17,326	198,608	60,930	193,534	5,378	3,385	..	263,282	1,964,829
" 1876 .....	22,254	249,516	78,249	286,614	8,910	5,834	..	379,607	2,247,395
" 1877 (53 weeks) .....	24,717	276,522	94,590	299,287	12,631	10,843	634	417,985	2,697,366
" 1878 .....	24,979	274,649	103,091	287,536	14,554	12,556	788	418,525	2,827,052
" 1879 .....	28,206	305,161	117,657	291,939	16,245	15,127	1,146	442,114	2,705,625
Dec. 1879 (50 weeks) .....	30,688	331,625	130,615	321,670	25,240	15,710	1,095	494,390	2,645,381
" 1880 .....	33,663	361,523	146,061	361,805	38,422	17,905	1,661	565,854	3,339,681
" 1881 .....	34,351	367,973	156,052	386,824	16,037	18,644	2,489	580,046	3,574,095
" 1882 .....	38,643	404,006	171,940	416,832	20,757	19,729	2,945	632,203	4,088,238
" 1883 .....	41,783	433,151	186,692	455,879	20,447	21,949	6,214	691,181	4,546,889
" 1884 (53 weeks) .....	45,099	459,734	207,080	494,840	25,126	24,324	9,989	761,858	4,675,371
" 1885 .....	51,099	507,772	234,112	524,781	31,094	40,084	11,104	841,175	4,793,151
" 1886 .....	58,612	558,104	270,679	567,527	37,755	57,015	11,408	944,879	5,223,135
" 1887 .....	64,475	604,800	300,953	590,091	39,095	78,237	18,666	1,017,042	5,718,279
" 1888 .....	67,704	634,196	318,583	648,134	51,189	84,201	13,928	1,116,085	6,200,074
" 1889 (53 weeks) .....	72,399	679,336	342,218	722,321	58,358	119,541	9,197	1,251,635	7,028,944
" 1890 .....	92,572	721,316	434,017	824,974	48,549	155,231	11,695	1,474,466	7,429,078
" 1891 .....	100,022	751,269	473,956	960,752	53,165	193,115	15,409	1,636,397	8,766,480
" 1892 .....	112,339	824,149	523,512	925,471	56,301	218,534	17,827	1,741,645	9,300,904
....	....	....	....	....	....	....	..	....	95,542,748

## TRADE

DR.

## RESERVE FUND ACCOUNT FROM

Additions to—	£
From Disposal of Profit Account, as above .....	106,142
Bonus to Employés: Balances between Amounts Provided and actually Paid .....	311
Dividend on Bad Debts, previously written off .....	735
Unclaimed Shares and Cash .....	20
Profit on Sale of Strawberry Estate, Newcastle .....	1,953
" " Land, Liverpool .....	713
" " Land and Buildings, Rosedale .....	11
Interest on Manchester Ship Canal Shares .....	1,515
Dividend on Sales to Employés .....	247

£111,647

## MARCH, 1864, TO DECEMBER, 1892.

Comparison with corresponding period previous year.		DISTRIBUTIVE EXPENSES.		Rate on Sales	Net Profit.	Average Dividend paid per £.	ADDITIONS TO TRADE.		Dates Departments and Branches were commenced.
Increase.	Rate.	Amnt.	Per £.				Reserve Fund.	Insurance Fund.	
£		£	s. d.		£	d.	£	£	
....	..	847	13	13 4½	267	1½	....	....	
....	..	906	13	15 0	1,858	3½	....	....	
54,785	45½	1,615	2½	18 4½	2,310	5	234	....	Tipperary.
112,688	51½	3,185	2½	18 10½	4,411	3	450	....	Kilmallock.
124,063	43	3,838	1½	16 2½	4,862	2½	416	....	Limerick.
94,977	23	4,644	2½	18 3½	4,248	1½	542	....	
159,379	80½	5,583	1½	16 5½	7,626	2½	1,620	....	Newcastle.
86,559	12½	6,853	2½	18 0½	7,867	2½	1,086	....	Manchester Boot and Shoe, Crumpsall.
394,368	51½	12,811	2½	22 2½	11,116	2½	1,243	....	{ Armagh, M'chester Drapery, Leicester,
483,618	41½	21,147	3	25 10	14,233	2	922	....	{ Hartford, Waterford, Clonmel.
327,879	20	28,436	3½	28 11½	20,684	2	4,461	....	London, Tralee, Durham.
282,566	14½	31,555	3½	28 0½	26,750	2½	4,825	....	Liverpool.
401,095	17½	42,436	3½	31 5½	36,979	2½	4,925	....	{ New York, Goole, Furnishing. S.S.
188,897	7½	43,169	3½	30 6½	29,189	2	579	....	{ "Plover" purchased.
121,427*	4½*	43,093	3½	31 10½	34,959	2½	5,970	....	Cork.
22,774	6	41,800	3½	31 2½	42,764	2½	8,060	....	{ Launch of Steamship "Pioneer."
611,282	22½	47,153	3½	28 2½	42,090	2½	10,651	....	{ Rouen. Goole forwarding depôt.
294,414	7	51,806	3½	28 8½	46,850	2½	7,672	....	Heckmondwike.
464,143	12½	57,340	3½	28 4½	49,658	2½	3,416	....	{ Copenhagen. Purchase of S.S. "Cam-
508,651	12½	66,057	3½	29 0½	47,835	2½	3,176	....	{ brian."
41,042	7	70,343	3½	30 1	54,491	2½	6,432	....	Tea and Coffee Department, London.
203,946	4½	74,305	3½	31 0	77,630	3½	4,434	13,259	{ Hamburg. Bristol Depôt. Launch of
430,028	8½	81,653	3½	31 3½	83,328	3½	7,077	15,469	{ S.S. "Progress."
490,056	9½	93,979	3½	32 10½	65,141	2½	9,408	2,778	{ Longton Depôt. Launch of S.S.
466,839	8½	105,027	4	33 10½	82,490	2½	8,684	6,614	{ "Federation."
709,638	11½	117,849	4	33 6½	101,984	3½	2,249	16,658	Batley, Heckmondwike Currying.
582,750	7½	126,879	4	34 1½	126,979	3½	..	20,982	{ London Cocoa Department. Launch of
1,837,357	18	143,151	4½	32 7½	135,008	3½	1,145	14,702	{ S.S. "Equity." Batley Ready Mades.
534,474	6	165,737	4½	35 7½	98,532	2½	6,514	1,000	{ Launch of S.S. "Liberty." Leeds
....	..	1,491,156	3½	31 2½	1,262,189	2½	106,142	91,462	{ Ready-Mades Department.

\* Decrease.

## DEPARTMENT.

## COMMENCEMENT OF THE SOCIETY.

CR.

Deductions from—	£
Celebration Dinner: Opening Warehouse, Balloon Street .....	56
Land and Buildings Account Depreciation, Special .....	1,148
Fixtures .....	852
Newcastle Formation Expenses .....	16
Insurance Fund .....	6,000
Investments Written off: Bank Department .....	13,259
" " Trade Department .....	10,650
Manchester Ship Canal Shares .....	20,000
Donations, Subscriptions, &c. ....	13,468
21st Anniversary Commemoration Expenses, Manchester .....	2,017
	<hr/> 72,476
BALANCE—Reserve Fund:—December 24, 1892, as per Capital Account .....	£34,528
" " " as per proposed Disposal of Profit Account. ....	4,643
	<hr/> 39,171
	<hr/> £111,647

## STATEMENT OF LAND, BUILDINGS, STEAMSHIPS, AND

		Area in Square Yards.	Yearly Chief.	Total Pay- ments	Less Written Off.	Nomin <sup>l</sup> Original Value.	Depre- ciation.	Nomin <sup>l</sup> Value June, 1893.
LAND.								
MANCHESTER:—								
1, Balloon Street, and 35, 37, 39, and 41, Garden Street 21 to 31, and 42 to 50, Back Balloon St., & 20, Holgate St. Balloon Street and Holgate Street .....	Grocery Warehouses and Meet- ing-room .....	1960½	£ s. d. 22 4 10	£ 12872	£ ..	£ 12872	£ 7812	£ 5060
Dantzic St., Garden St., Cable St., and Cross St. . . 88 to 96, Corporation Street Garden Street .....	Property on Rental .....	465	15 17 6	1450	..	1450	36	1414
14, 16, and 18, Balloon St., and 14, 16 and 18, Holgate St..	Central Offices, Bank, Boot and Shoe, and Furnishing Ware- houses, and White Lion Hotel Drapery, Woollens, and Ready- mades Departments .....	2936½	8 13 6	35999	..	35999	8658	27341
	Warehouses on Rental .....	1493½	5 0 0	17934	..	17934	5962	11972
	New Engine-house, &c. ....	635	Freehold.	11250	..	11250	1515	9735
		750	....	6000	..	6000	804	5196
	Property on Rental .....	416	Freehold.	4700	..	4700	118	4582
NEWCASTLE-ON-TYNE:—								
Thornton Street, Waterloo St., & West Blandford St. LONDON:—	Total, Manchester....	8656½	51 15 10	90205	..	90205	24905	65300
Leman Street & Great Pres- cott Street .....	Offices, Grocery, and Drapery Whouse, Boot & Shoe & Fur- nishing Whouse, Dining-rm. Offices, Grocery, Drapery, Boot & Shoe, Furnishing, & Tea, & Con- ce & Cocoa Warehouse, Property on Rental, Stables, &c. ....	8770	Freehold.	33262	44	33218	5987	27231
BRISTOL .....	Warehouse and Sale Rooms .....	4072½	..	22694	1083	21611	4161	17450
CRUMPSALL .....	Biscuits and Sweets, and Dry and Soft Soap Works .....	10535	45 0 0	9567	441	9126	1698	7428
LEICESTER .....	Boot and Shoe Works .....	31000	Freehold.	84	..	84	10	74
ENDERBY .....	Boot & Shoe & Currying Works .....	776	..	1442	..	1442	279	1163
HECKMONDWIEE .....	Soap Works .....	5947	..	1095	..	1095	500	595
DURHAM .....	Woollen Mill & Ready-mades .....	1094½	..	3726	..	3726	559	3167
BATLEY .....	Corn Mill .....	7036	Freehold.	..	..	..	..	..
DUNSTON .....	Office Fittings .....	..	..	..	..	..	..	..
LIVERPOOL .....	Horse and Trap .....	..	..	..	..	..	..	..
CHESHIRE .....	Sale Room .....	..	..	..	..	..	..	..
BIRMINGHAM .....	Ready-mades .....	..	..	..	..	..	..	..
LEEDS .....	Butter Purchasing Depôt .....	480½	10 0 0	..	..	..	..	..
"	" " " .....	..	..	..	..	..	..	..
Limerick (839 years' lease) ..	" " " .....	..	..	..	..	..	..	..
Waterford .....	" " " .....	..	..	..	..	..	..	..
Kilmallock .....	" " " .....	..	..	..	..	..	..	..
Tipperary (99 years' lease) ..	House & Butter Store on Rental .....	595½	4 0 0	..	..	..	..	..
Cork .....	Butter Purchasing Depôt .....	693½	5 0 0	..	..	..	..	..
Tralee (99 years' lease) ....	Butter and Eggs .....	2785	36 7 0	..	..	..	..	..
Armagh .....	" " " .....	..	..	..	..	..	..	..
NEW YORK (America) .....	Office Fittings .....	..	..	..	..	..	..	..
COPENHAGEN .....	" " .....	..	..	..	..	..	..	..
AARHUS .....	" " .....	..	..	..	..	..	..	..
HAMBURG .....	" " .....	..	..	..	..	..	..	..
LONDON .....	Crockery Depôt and House....	1708	Freehold.	470	..	470	47	423
ROUEN (France) .....	Shipping Depôt, Shed, Office Fittings, &c. ....	..	..	..	..	..	..	..
CALAIS .....	" Offices, Crane & Lines .....	..	..	..	..	..	..	..
GOOLE .....	" " .....	..	..	..	..	..	..	..
Longsight .....	Land .....	45347	Freehold.	9619	..	9619	2285	7334
Gorton .....	Dwelling-houses and Shops .....	9000	"	3925	..	3925	328	3602
Lower Broughton .....	Cabinet Works .....	8717	"	4413	..	4413	246	4165
Bolton .....	Dwelling-houses and Shops .....	10819½	118 15 8	..	..	..	..	..
Newhall .....	Dwelling-houses and Shops .....	7260	Freehold.	300	..	300	73	227
Taff .....	Dwelling-houses and Shops....	1150	9 11 0	..	..	..	..	..
	S.S. "Pioneer" .....	..	..	..	..	..	..	..
	S.S. "Unity" .....	..	..	..	..	..	..	..
	S.S. "Progress" .....	..	..	..	..	..	..	..
	S.S. "Federation" .....	..	..	..	..	..	..	..
	S.S. "Equity" .....	..	..	..	..	..	..	..
	S.S. "Liberty" .....	..	..	..	..	..	..	..
	S.S. "Dinah" .....	..	..	..	..	..	..	..
Garston and Rouen, Goole and Calais, and Goole and Hamburg Lines....		..	..	..	..	..	..	..
Dunston.. .....		..	..	..	..	..	..	..
Totals..166443½			280 9 6	180802	1568	179234	41075	138159

## FIXTURES, QUARTER ENDING JUNE 24TH, 1893.

BUILDINGS AND STEAMSHIPS.					FIXTURES.					TOTALS.				
Total Pay-ments.	Less Written Off.	Nomin'l Origin'l Value.	Depre-ciation.	Nomin'l Value, June, 1893.	Total Pay-ments.	Less Written Off.	Nomin'l Origin'l Value.	Depre-ciation.	Nomin'l Value, June, 1893.	Total Pay-ments.	Less Written Off.	Nomin'l Origin'l Value.	Depre-ciation.	Nomin'l Value, June, 1893.
£ 32475	..	£ 32475	£ 23766	£ 8709	£ 15515	£ 210	£ 15305	£ 14096	£ 1209	£ 60862	£ 210	£ 60652	£ 45674	£ 14978
500	..	500	26	474	..	..	..	..	..	1950	..	1950	62	1888
42392	416	41976	9938	32038	14017	239	13778	3363	10415	92408	655	91753	21959	69794
93454	4606	31848	18434	13414	10185	18	10167	7357	2810	64573	4634	59949	31753	28196
12900	822	12900	3433	9467	..	..	..	..	..	24150	..	24150	4948	19202
10838	822	10016	442	9574	5128	..	5128	232	4896	21966	822	21144	1478	19666
1550	..	1550	80	1470	..	..	..	..	..	6250	..	6250	198	6052
137109	5844	131265	56119	75146	44845	467	44378	25048	19330	272159	6311	265848	106072	159776
56106	478	55628	24746	30882	19064	100	18964	11093	7871	108432	622	107810	41826	65984
86405	..	83405	33641	52764	29641	..	29641	15966	13675	138740	1083	137657	53768	83889
..	..	..	..	..	728	..	728	373	355	728	..	728	373	355
19792	..	19792	9418	10374	15034	324	14710	9071	5639	34823	324	34502	18489	16013
46574	208	46366	12530	33836	34223	1762	32461	7186	25275	90364	2411	87953	21414	66539
1058	9	1049	237	812	831	..	831	272	559	1973	9	1964	519	1445
10135	835	9300	2635	6665	6017	..	6017	2324	9693	17594	835	16759	5238	11521
3925	..	3925	3390	535	3040	..	3040	3040	..	8060	..	8060	6390	1130
1434	..	1434	375	1059	5429	..	5429	1935	3494	6863	..	6863	2810	4553
63936	8560	55376	9527	45849	49379	136	49243	9768	39475	117041	8696	108345	19854	88491
..	..	..	..	..	431	147	284	206	78	431	147	284	206	78
..	..	..	..	..	252	86	166	166	..	252	86	166	166	..
..	..	..	..	..	50	..	50	4	46	50	..	50	4	46
..	..	..	..	..	393	186	207	97	110	393	186	207	97	110
..	..	..	..	..	1883	..	1883	463	1420	1883	..	1883	463	1420
852	..	852	352	..	232	..	232	232	..	584	..	584	584	..
..	..	..	..	..	3	..	3	3	..	3	..	3	3	..
..	..	..	..	..	20	..	20	8	12	20	..	20	8	12
840	..	840	805	35	23	..	23	23	..	863	..	863	828	35
..	..	..	..	..	50	..	50	50	..	50	..	50	50	..
1023	..	1023	621	402	43	..	43	1	42	1066	..	1066	622	444
125	..	125	28	97	444	..	444	381	63	569	..	569	409	160
..	..	..	..	..	6	..	6	6	..	6	..	6	6	..
..	..	..	..	..	63	..	63	53	10	63	..	63	53	10
..	..	..	..	..	21	..	21	3	18	21	..	21	3	18
..	..	..	..	..	15	..	15	11	4	15	..	15	11	4
1882	96	1786	333	1453	441	..	441	92	349	2793	96	2697	472	2225
..	..	..	..	..	241	..	241	111	130	241	..	241	111	130
447	..	447	37	410	1056	39	1017	755	262	1503	39	1464	792	672
..	..	..	..	..	127	..	127	114	13	127	..	127	114	13
..	..	..	..	..	..	..	..	..	..	9619	..	9619	2285	7394
12561	..	12561	6904	5657	..	..	..	..	..	16486	..	16486	7227	9259
7128	463	6660	446	6214	3950	..	3950	237	3713	15491	468	15023	931	14092
7239	..	7239	4849	2390	..	..	..	..	..	7239	..	7239	4849	2390
494	..	494	291	203	..	..	..	..	..	794	..	794	364	430
3048	..	3048	1526	1522	..	..	..	..	..	3048	..	3048	1526	1522
11603	..	11603	9100	2503	..	..	..	..	..	11603	..	11603	9100	2503
8634	..	8634	4878	3756	..	..	..	..	..	8634	..	8634	4878	3756
8994	..	8994	6128	2866	..	..	..	..	..	8994	..	8994	6128	2866
15343	..	15343	6222	9121	..	..	..	..	..	15343	..	15343	6222	9121
17799	..	17799	5805	11994	..	..	..	..	..	17799	..	17799	5805	11994
22126	..	22126	5749	16377	..	..	..	..	..	22126	..	22126	5749	16377
1000	..	1000	131	869	..	..	..	..	..	1000	..	1000	131	869
*461613	*16498	*445115	*168810	*276305	217975	3247	214728	89092	125636	860390	21312	899077	298977	540100
+85499	+85499	+85499	+38013	+47486	..	..	..	..	..	+85499	..	+85499	+38013	+47486

\* Buildings.

† Steamships.

## MANCHESTER GROCERY AND PROVISION TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
July, 1874 .....	353216	3682	0 2½	1831	0 1½	64083
Oct. " .....	471586	4342	0 2½	6905	0 3½	71841
January, 1875 .....	285353	3692	0 8½	3250	0 2½	71860
April " .....	306720	3627	0 2½	2082	0 1½	52803
July " .....	359076	3458	0 2½	3996	0 2½	51573
October " .....	427793	3884	0 2½	6379	0 3½	50723
January, 1876 .....	382947	3732	0 2½	6685	0 4½	56487
April " .....	355644	4091	0 2½	5070	0 3½	55040
July " .....	398787	4603	0 2½	3975	0 2½	50136
October " (14 weeks) .....	543067	4685	0 2	10514	0 4½	64695
January, 1877 .....	410139	4313	0 2½	8434	0 4½	68205
April " .....	350666	4257	0 2½	2501	0 1½	47424
July " .....	475064	4261	0 2½	6848	0 3½	64838
October " .....	513321	4157	0 2	10377	0 4½	63592
January, 1878 .....	421966	4191	0 2½	6019	0 3½	53790
April " .....	392083	4380	0 2½	6127	0 3½	61765
July " .....	401932	4401	0 2½	5216	0 3	57128
October " .....	491527	4393	0 2½	8669	0 4½	59793
January, 1879 .....	398071	4200	0 2½	6490	0 3½	55319
March " (10 weeks) .....	263534	3254	0 2½	2790	0 2½	71347
June " (14 weeks) .....	404338	4722	0 2½	3659	0 2½	79086
September, 1879 .....	452049	4376	0 2½	9306	0 4½	61379
December, " .....	470086	4409	0 2½	13071	0 6½	71446
March, 1880 .....	418000	4644	0 2½	5706	0 3½	95015
June " .....	484068	4797	0 2½	4327	0 2½	82832
September " .....	564183	4718	0 2	12086	0 5½	102466
December " .....	592133	4752	0 2½	8858	0 4	70091
March, 1881 .....	404706	4692	0 2½	5927	0 3½	84602
June " .....	497493	4865	0 2½	7256	0 3½	81648
Sept. " .....	598864	5019	0 2	11227	0 4½	84093
Dec. " .....	546147	5307	0 2½	8050	0 3½	87277
March, 1882 .....	468027	5884	0 3	6222	0 3½	107940
June " .....	559537	5839	0 2½	6187	0 2½	92310
Sept. " .....	617265	5704	0 2½	9339	0 3½	92696
Dec. " .....	653521	6230	0 2½	8896	0 3½	141191
March, 1883 .....	558465	7029	0 3	7296	0 3½	125416
June " .....	606473	7097	0 2½	4360	0 1½	130279
Sept. " .....	692614	6927	0 2½	7514	0 2½	97095
Dec. " .....	686852	7284	0 2½	8285	0 2½	109414
March, 1884 .....	502853	7007	0 3½	5493	0 2½	89334
June " (14 weeks) .....	641730	7616	0 2½	5262	0 1½	94779
Sept. " .....	675845	6972	0 2½	7602	0 2½	104632
Dec. " .....	636860	6927	0 2½	6536	0 2½	107524

MANCHESTER GROCERY AND PROVISION TRADE.—*Con.**From the time of commencing to keep a separate Account.*

## QUATERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
March, 1885 .....	514235	7124	0 3 $\frac{1}{2}$	7455	0 3 $\frac{1}{2}$	78912
June " .....	578862	6746	0 2 $\frac{1}{2}$	13340	0 5 $\frac{1}{2}$	90848
Sept. " .....	644647	6586	0 2 $\frac{1}{2}$	10555	0 3 $\frac{1}{2}$	97421
Dec. " .....	638201	7028	0 2 $\frac{1}{2}$	10407	0 3 $\frac{1}{2}$	92790
March, 1886 .....	568243	7181	0 3	8553	0 3 $\frac{1}{2}$	95156
June " .....	600840	7291	0 2 $\frac{1}{2}$	7454	0 2 $\frac{1}{2}$	78561
Sept. " .....	671578	7469	0 2 $\frac{1}{2}$	10913	0 3 $\frac{1}{2}$	104934
Dec. " .....	730774	7896	0 2 $\frac{1}{2}$	14461	0 4 $\frac{1}{2}$	113620
March, 1887 .....	604978	7724	0 3	10305	0 4	103609
June " .....	648521	7976	0 2 $\frac{1}{2}$	8133	0 3	96828
Sept. " .....	761498	8248	" 2 $\frac{1}{2}$	11926	0 3 $\frac{1}{2}$	122923
Dec. " .....	812627	9031	0 2 $\frac{1}{2}$	15152	0 4 $\frac{1}{2}$	129565
March, 1888 .....	673598	8387	0 2 $\frac{1}{2}$	10347	0 3 $\frac{1}{2}$	101993
June " .....	720959	8794	0 2 $\frac{1}{2}$	11111	0 3 $\frac{1}{2}$	109278
Sept. " .....	802383	8900	0 2 $\frac{1}{2}$	14345	0 4 $\frac{1}{2}$	121208
Dec. " .....	895285	9833	0 2 $\frac{1}{2}$	13995	0 3 $\frac{1}{2}$	139849
March, 1889 .....	769225	9300	0 2 $\frac{1}{2}$	14235	0 4 $\frac{1}{2}$	150890
June " .....	839900	10001	0 2 $\frac{1}{2}$	19357	0 5 $\frac{1}{2}$	143149
Sept. " (14 weeks) .....	960271	10308	0 2 $\frac{1}{2}$	12090	0 3	116194
Dec. " .....	933799	10196	0 2 $\frac{1}{2}$	15770	0 4	112396
March, 1890 (12 weeks) .....	724632	9399	0 3	12669	0 4 $\frac{1}{2}$	92544
June " (14 weeks) .....	887966	10711	0 2 $\frac{1}{2}$	15486	0 4 $\frac{1}{2}$	91409
Sept. " .....	890116	10310	0 2 $\frac{1}{2}$	16892	0 4 $\frac{1}{2}$	119560
Dec. " .....	1014400	11128	0 2 $\frac{1}{2}$	20937	0 4 $\frac{1}{2}$	123432
March, 1891 .....	946982	10971	0 2 $\frac{1}{2}$	19441	0 4 $\frac{1}{2}$	101661
June " .....	936125	11089	0 2 $\frac{1}{2}$	16001	0 4	99479
Sept. " .....	1057205	11427	0 2 $\frac{1}{2}$	19517	0 4 $\frac{1}{2}$	145406
Dec. " .....	1172257	13183	0 2 $\frac{1}{2}$	19923	0 4	192161
March, 1892 .....	1034457	12992	0 3	15722	0 3 $\frac{1}{2}$	184174
June " .....	1029284	13727	0 3 $\frac{1}{2}$	13622	0 3 $\frac{1}{2}$	154057
Sept. " .....	1108353	13580	0 2 $\frac{1}{2}$	11385	0 2 $\frac{1}{2}$	197236
Dec. " .....	1228901	14361	0 2 $\frac{1}{2}$	19186	0 3 $\frac{1}{2}$	226266
March, 1893 .....	1047841	14258	0 3 $\frac{1}{2}$	19539	0 4 $\frac{1}{2}$	177536
June " .....	1076495	14203	0 3 $\frac{1}{2}$	16895	0 3 $\frac{1}{2}$	179585
	49200049	552156	0 2 $\frac{1}{2}$	768642	0 3 $\frac{1}{2}$	....

## MANCHESTER DRAPERY TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
January, 1874 .....	10575	848	0 8	201	0 4 <sup>3</sup> / <sub>4</sub>	.....	.....	11568
April " .....	12712	564	0 10 <sup>1</sup> / <sub>2</sub>	486	0 8 <sup>3</sup> / <sub>4</sub>	.....	.....	19409
July " .....	12991	867	1 4	952	1 5 <sup>3</sup> / <sub>4</sub>	.....	.....	26002
October " .....	24185	1223	1 0 <sup>1</sup> / <sub>2</sub>	.....	.....	560	0 5 <sup>1</sup> / <sub>2</sub>	81475
January, 1875 .....	21402	1218	1 1 <sup>3</sup> / <sub>4</sub>	416	0 4 <sup>3</sup> / <sub>4</sub>	.....	.....	86824
April " .....	26278	1819	1 0 <sup>3</sup> / <sub>4</sub>	239	0 2 <sup>3</sup> / <sub>4</sub>	.....	.....	37905
July " .....	80518	1748	1 1 <sup>1</sup> / <sub>2</sub>	876	0 8	.....	.....	47101
October " .....	36071	2041	1 1 <sup>2</sup> / <sub>4</sub>	246	0 1 <sup>3</sup> / <sub>4</sub>	.....	.....	65230
January, 1876 .....	86629	2156	1 2 <sup>1</sup> / <sub>2</sub>	.....	.....	141	0 0 <sup>1</sup> / <sub>2</sub>	72408
April " .....	41708	2397	1 1 <sup>1</sup> / <sub>2</sub>	60	0 0 <sup>3</sup> / <sub>4</sub>	.....	.....	74071
July " .....	32996	2509	1 6 <sup>1</sup> / <sub>2</sub>	.....	.....	634	0 4 <sup>1</sup> / <sub>2</sub>	73888
October " (14 weeks) .....	82977	2370	1 2 <sup>3</sup> / <sub>4</sub>	.....	.....	453	0 2 <sup>3</sup> / <sub>4</sub>	70898
January, 1877 .....	38402	2115	1 8 <sup>1</sup> / <sub>2</sub>	.....	.....	398	0 2 <sup>3</sup> / <sub>4</sub>	69267
April " .....	31620	2318	1 5 <sup>3</sup> / <sub>4</sub>	.....	.....	1678	1 0 <sup>1</sup> / <sub>2</sub>	64349
July " .....	25640	2197	1 8 <sup>1</sup> / <sub>2</sub>	.....	.....	1115	0 10 <sup>3</sup> / <sub>4</sub>	66589
October " .....	51389	2148	1 4 <sup>1</sup> / <sub>2</sub>	.....	.....	154	0 1 <sup>3</sup> / <sub>4</sub>	62442
January, 1878 .....	36269	2218	1 2 <sup>3</sup> / <sub>4</sub>	.....	.....	1197	0 8	48511
April " .....	37000	2162	1 2	816	0 2	.....	.....	44395
July " .....	31486	2186	1 4 <sup>1</sup> / <sub>2</sub>	60	0 0 <sup>1</sup> / <sub>2</sub>	.....	.....	43849
October " .....	33708	2146	1 8 <sup>1</sup> / <sub>2</sub>	191	0 1 <sup>3</sup> / <sub>4</sub>	.....	.....	44662
January, 1879 .....	82557	2024	1 2 <sup>3</sup> / <sub>4</sub>	68	0 0 <sup>3</sup> / <sub>4</sub>	.....	.....	44489
March " (10 weeks) .....	25869	1622	1 8	193	0 1 <sup>3</sup> / <sub>4</sub>	.....	.....	44151
June " (14 weeks) .....	33171	2116	1 8 <sup>1</sup> / <sub>2</sub>	619	0 4 <sup>1</sup> / <sub>2</sub>	.....	.....	45960
Sept. " .....	30136	2022	1 4	168	0 1 <sup>1</sup> / <sub>2</sub>	.....	.....	44446
Dec. " .....	37648	2057	1 1	694	0 4 <sup>1</sup> / <sub>2</sub>	.....	.....	43225
March, 1880 .....	37484	2166	1 1 <sup>1</sup> / <sub>2</sub>	472	0 8	.....	.....	41788
June " .....	34195	2085	1 2 <sup>1</sup> / <sub>2</sub>	374	0 2 <sup>3</sup> / <sub>4</sub>	.....	.....	43792
Sept. " .....	30734	2264	1 5 <sup>1</sup> / <sub>2</sub>	201	0 1 <sup>1</sup> / <sub>2</sub>	.....	.....	45664
Dec. " .....	37008	2044	1 1 <sup>1</sup> / <sub>2</sub>	1267	0 8	.....	.....	44105
March, 1881 .....	32449	2078	1 8 <sup>1</sup> / <sub>2</sub>	564	0 4 <sup>1</sup> / <sub>2</sub>	.....	.....	40245
June " .....	30939	2002	1 5 <sup>1</sup> / <sub>2</sub>	453	0 8 <sup>1</sup> / <sub>2</sub>	.....	.....	43533
Sept. " .....	31825	2060	1 5 <sup>1</sup> / <sub>2</sub>	822	0 2 <sup>3</sup> / <sub>4</sub>	.....	.....	43315
Dec. " .....	37701	2028	1 0 <sup>1</sup> / <sub>2</sub>	593	0 3 <sup>1</sup> / <sub>2</sub>	.....	.....	42238
March, 1882 .....	34675	2064	1 2 <sup>1</sup> / <sub>2</sub>	820	0 5 <sup>3</sup> / <sub>4</sub>	.....	.....	39171
June " .....	32539	2017	1 2 <sup>1</sup> / <sub>2</sub>	809	0 5 <sup>1</sup> / <sub>2</sub>	.....	.....	44073
Sept. " .....	33963	2083	1 2 <sup>3</sup> / <sub>4</sub>	535	0 8 <sup>1</sup> / <sub>2</sub>	.....	.....	42467
Dec. " .....	41622	2173	1 0 <sup>3</sup> / <sub>4</sub>	1340	0 7 <sup>1</sup> / <sub>2</sub>	.....	.....	40854
March, 1883 .....	38327	2250	1 2	325	0 2	.....	.....	39420
June " .....	33329	2098	1 3	1165	0 8 <sup>1</sup> / <sub>2</sub>	.....	.....	38606
Sept. " .....	38935	2241	1 1 <sup>1</sup> / <sub>2</sub>	856	0 5 <sup>1</sup> / <sub>2</sub>	.....	.....	43097
Dec. " .....	46206	2287	1 0 <sup>3</sup> / <sub>4</sub>	1825	0 9 <sup>1</sup> / <sub>2</sub>	.....	.....	41365
March, 1884 .....	38641	1999	1 0 <sup>3</sup> / <sub>4</sub>	767	0 4 <sup>1</sup> / <sub>2</sub>	.....	.....	33888
June " (14 weeks) .....	39597	2196	1 1 <sup>1</sup> / <sub>2</sub>	827	0 5	.....	.....	37060
Sept. " .....	41661	2090	1 0	1827	0 7 <sup>1</sup> / <sub>2</sub>	.....	.....	40854
Dec. " .....	45871	2080	0 10 <sup>1</sup> / <sub>2</sub>	2362	1 0 <sup>1</sup> / <sub>2</sub>	.....	.....	38026

NOTE.—To December, 1885, the figures include Woollens and Ready-Mades Department.



MANCHESTER DRAPERY TRADE.—*Con.**From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
March, 1885.....	44878	2249	1 0	1608	0 8 $\frac{1}{2}$	....	....	87137
June ".....	36821	2133	1 1 $\frac{1}{2}$	1208	0 7 $\frac{1}{2}$	....	....	40780
Sept. ".....	42652	2233	1 0 $\frac{1}{2}$	1469	0 8 $\frac{1}{2}$	....	....	46513
Dec. ".....	48882	2452	1 0	1102	0 5 $\frac{3}{8}$	....	....	44948
March, 1886.....	47873	2352	0 11 $\frac{3}{4}$	1180	0 5 $\frac{1}{2}$	....	....	43609
June ".....	44898	2272	1 0 $\frac{5}{8}$	1477	0 7 $\frac{1}{2}$	....	....	46093
Sept. ".....	49080	2492	1 0 $\frac{1}{2}$	1009	0 4 $\frac{1}{2}$	....	....	50143
Dec. ".....	53288	2612	0 11 $\frac{3}{4}$	1717	0 7 $\frac{3}{8}$	....	....	54130
March, 1887.....	50308	2519	1 0	1379	0 6 $\frac{1}{2}$	....	....	55071
June ".....	48306	2666	1 1 $\frac{1}{2}$	691	0 3 $\frac{3}{4}$	....	....	61237
Sept. ".....	50232	2716	1 0 $\frac{1}{2}$	714	0 3 $\frac{3}{4}$	....	....	64263
Dec. ".....	61859	2897	0 11 $\frac{3}{4}$	840	0 3 $\frac{1}{4}$	....	....	59695
March, 1888.....	57800	2748	0 11 $\frac{3}{4}$	1070	0 4 $\frac{3}{8}$	....	....	59101
June ".....	55898	2858	1 0 $\frac{1}{2}$	1166	0 5	....	....	57459
Sept. ".....	55495	2791	1 0	344	0 1 $\frac{1}{2}$	....	....	62591
Dec. ".....	63084	2953	0 11 $\frac{3}{4}$	2211	0 8 $\frac{3}{8}$	....	....	62110
March, 1889.....	59112	2922	0 11 $\frac{3}{4}$	1418	0 5 $\frac{3}{8}$	....	....	69413
June ".....	62194	3127	1 0	380	0 1 $\frac{1}{2}$	....	....	71854
Sept. " (14 weeks)..	66746	3593	1 0 $\frac{1}{2}$	1819	0 4 $\frac{3}{8}$	....	....	84102
Dec. ".....	68397	3526	1 0 $\frac{1}{4}$	1422	0 4 $\frac{3}{8}$	....	....	87849
March, 1890 (12 weeks)..	70839	3632	1 0 $\frac{1}{4}$	1150	0 3 $\frac{7}{8}$	....	....	89190
June " (14 weeks)..	79680	4189	1 0 $\frac{1}{2}$	2245	0 6 $\frac{1}{2}$	....	....	90891
Sept. ".....	73278	3849	1 0 $\frac{1}{2}$	190	0 0 $\frac{1}{2}$	....	....	89311
Dec. ".....	87568	3942	0 10 $\frac{1}{2}$	3406	0 9 $\frac{1}{2}$	....	....	84739
March, 1891.....	84398	3901	0 11	868	0 2 $\frac{3}{4}$	....	....	81873
June ".....	77664	4013	1 0 $\frac{1}{2}$	3098	0 9 $\frac{1}{4}$	....	....	83681
Sept. ".....	83583	4159	0 11 $\frac{1}{2}$	1931	0 3 $\frac{1}{2}$	....	....	87861
Dec. ".....	93568	4233	0 10 $\frac{1}{2}$	2618	0 6 $\frac{3}{8}$	....	....	82524
March, 1892....	92107	4508	0 11 $\frac{3}{4}$	2326	0 6	....	....	82022
June ".....	86610	4717	1 1	2142	0 5 $\frac{1}{2}$	....	....	87115
Sept. ".....	85643	4725	1 1 $\frac{1}{2}$	2118	0 5 $\frac{1}{4}$	....	....	97505
Dec. ".....	106135	4917	0 11	3550	0 8	....	....	90744
March, 1893.....	97708	4815	0 11 $\frac{3}{4}$	2432	0 5 $\frac{1}{4}$	....	....	92723
June ".....	90894	4882	1 0 $\frac{5}{8}$	2329	0 6 $\frac{1}{4}$	....	....	91116
	3760521	203059	1 0 $\frac{7}{8}$	75916	....	6325	....	....
Less Depreciation allowed, see Disposal of Profit Account, October, 1877....		£4757						
" Loss .....		6325		11082	....			
Leaves Net Profit .....			....	64834	0 4 $\frac{1}{4}$			

NOTE.—To December, 1883, the figures include Woollens and Ready-Mades Department.

## MANCHESTER WOOLLENS AND READY-MADES DEPARTMENT.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
		£	s. d.	£	s. d.	£	s. d.	
March 1884 .....	4504	307	1 4 $\frac{1}{2}$	1	....	....	....	4889
June " (14 weeks) ..	7243	341	0 11 $\frac{1}{2}$	226	0 7 $\frac{1}{2}$	....	....	4212
September " .....	4272	301	1 4 $\frac{1}{2}$	408	1 10 $\frac{1}{4}$	....	....	4720
December " .....	4349	272	1 3	....	....	226	1 0 $\frac{3}{4}$	4407
March 1885 .....	5748	294	1 0 $\frac{1}{2}$	159	0 6 $\frac{1}{2}$	....	....	5081
June " .....	6186	307	0 11 $\frac{1}{2}$	195	0 7 $\frac{1}{2}$	....	....	4151
September " .....	4476	310	1 4 $\frac{1}{2}$	61	0 8 $\frac{1}{2}$	....	....	5728
December " .....	4900	338	1 4 $\frac{1}{2}$	....	....	79	0 8 $\frac{1}{2}$	5242
March 1886 .....	5129	374	1 5 $\frac{1}{2}$	....	....	170	0 7 $\frac{1}{2}$	6961
June " .....	7543	359	0 11 $\frac{1}{2}$	401	1 0 $\frac{3}{4}$	....	....	5661
September " .....	4363	331	1 6 $\frac{1}{2}$	77	0 4 $\frac{1}{2}$	....	....	6641
December " .....	5139	353	1 4 $\frac{1}{2}$	19	0 0 $\frac{1}{2}$	....	....	6275
March 1887 .....	5684	357	1 3	....	....	84	0 8 $\frac{1}{2}$	7060
June " .....	6213	354	1 1 $\frac{1}{2}$	203	0 7 $\frac{1}{2}$	....	....	6023
September " .....	4512	351	1 6 $\frac{1}{2}$	....	....	48	0 2 $\frac{1}{2}$	6385
December " .....	5411	365	1 4 $\frac{1}{2}$	....	....	78	0 3 $\frac{1}{2}$	6112
March 1888 .....	5565	370	1 3 $\frac{1}{2}$	....	....	178	0 7 $\frac{1}{2}$	7945
June " .....	7193	396	1 1 $\frac{1}{2}$	248	0 8	....	....	6654
September " .....	4756	379	1 7	....	....	111	0 5 $\frac{1}{2}$	7094
December " .....	5533	402	1 5 $\frac{1}{2}$	16	0 0 $\frac{1}{2}$	....	....	8450
March 1889 .....	5865	405	1 4 $\frac{1}{2}$	....	....	159	0 6 $\frac{1}{2}$	10971
June " .....	8131	418	1 0 $\frac{1}{2}$	314	0 9 $\frac{1}{2}$	....	....	11092
September " (14 weeks) ..	6293	525	1 8	....	....	111	0 4 $\frac{1}{2}$	11231
December " .....	6524	497	1 6 $\frac{1}{2}$	....	....	256	0 9 $\frac{1}{2}$	12277
March 1890 (12 weeks) ..	6315	497	1 6 $\frac{1}{2}$	....	....	416	1 3 $\frac{1}{2}$	11586
June " (14 weeks) ..	8244	552	1 4	67	0 1 $\frac{1}{2}$	....	....	11504
September " .....	5064	494	1 11 $\frac{1}{2}$	....	....	599	2 4 $\frac{1}{2}$	11975
December " .....	7070	552	1 6 $\frac{1}{2}$	....	....	336	0 11 $\frac{1}{2}$	11463
March 1891 .....	7896	584	1 5 $\frac{1}{2}$	....	....	905	2 0 $\frac{1}{2}$	13614
June " .....	8896	613	1 4 $\frac{1}{2}$	9	0 0 $\frac{1}{2}$	....	....	13860
Sept. " .....	7126	609	1 8 $\frac{1}{2}$	....	....	746	2 1	17718
Dec. " .....	8028	659	1 7 $\frac{1}{2}$	....	....	752	1 10 $\frac{1}{2}$	19761
March 1892 .....	9132	758	1 7 $\frac{1}{2}$	....	....	623	1 4 $\frac{1}{2}$	20913
June " .....	12597	828	1 3 $\frac{1}{2}$	311	0 5 $\frac{1}{2}$	....	....	19944
September " .....	7468	722	1 11 $\frac{1}{2}$	....	....	4178	....	15501
December " .....	11437	641	1 1 $\frac{1}{2}$	297	0 6 $\frac{1}{2}$	....	....	12958
March 1893 .....	12782	721	1 1 $\frac{1}{2}$	182	0 3 $\frac{1}{2}$	....	....	13362
June " .....	14133	741	1 0 $\frac{1}{2}$	358	0 6	....	....	10760
	261584	17677	1 4 $\frac{1}{2}$	3547	....	9945	....	....
		Less Profit .....	....	....	....	3547	....	....
		Leaves Net Loss ....	....	....	....	6398	0 5 $\frac{1}{2}$	....

## MANCHESTER BOOT AND SHOE TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	d.	£	d.	£	d.	£
January, 1874.....	5506	204	8 $\frac{3}{4}$	1	..	..	..	4715
April ".....	7529	281	7 $\frac{1}{2}$	352	11 $\frac{1}{2}$	..	..	4856
July ".....	10794	288	6 $\frac{1}{2}$	214	4 $\frac{1}{2}$	..	..	4812
October ".....	8877	321	8 $\frac{3}{8}$	..	..	95	2 $\frac{1}{2}$	4897
January, 1875.....	10057	289	6 $\frac{1}{8}$	277	6 $\frac{1}{2}$	..	..	5197
April ".....	12240	310	6	341	6 $\frac{1}{2}$	..	..	4614
July ".....	14275	321	5 $\frac{1}{2}$	16	4 $\frac{1}{2}$	..	..	5359
October ".....	15234	851	5 $\frac{1}{2}$	341	5 $\frac{1}{2}$	..	..	7474
January, 1876.....	12186	344	6 $\frac{1}{2}$	77	1 $\frac{1}{2}$	..	..	7711
April ".....	13777	418	7 $\frac{1}{4}$	187	3 $\frac{1}{2}$	..	..	8517
July ".....	15259	474	7 $\frac{1}{2}$	172	2 $\frac{1}{2}$	..	..	7894
October " (14 weeks)	15893	472	7 $\frac{1}{8}$	168	2 $\frac{1}{2}$	..	..	7243
January, 1877.....	12378	447	8 $\frac{3}{8}$	59	1 $\frac{1}{2}$	..	..	6082
April ".....	14018	461	7 $\frac{1}{8}$	220	3 $\frac{1}{2}$	..	..	6973
July ".....	16969	516	6 $\frac{1}{10}$	332	4 $\frac{1}{4}$	..	..	7994
October ".....	14185	498	8 $\frac{7}{8}$	132	2 $\frac{1}{2}$	..	..	7594
January, 1878.....	13132	500	9 $\frac{1}{2}$	102	1 $\frac{1}{2}$	..	..	7935
April ".....	13591	572	10	153	2 $\frac{1}{2}$	..	..	8349
July ".....	17913	564	7 $\frac{1}{2}$	417	5 $\frac{1}{2}$	..	..	9646
October ".....	15585	580	8 $\frac{3}{8}$	340	5 $\frac{1}{2}$	..	..	9658
January, 1879.....	12238	476	9 $\frac{1}{4}$	..	..	143	2 $\frac{1}{2}$	10242
March " (10 weeks)	8835	403	10 $\frac{1}{8}$	234	6 $\frac{1}{2}$	..	..	10517
June " (14 weeks)	17443	579	8	415	5 $\frac{1}{2}$	..	..	10996
September ".....	14150	583	9 $\frac{1}{2}$	119	2	..	..	10709
December ".....	14842	570	9 $\frac{1}{4}$	..	..	16	$\frac{1}{4}$	10964
March, 1880.....	15095	585	9 $\frac{1}{4}$	479	7 $\frac{1}{2}$	..	..	10301
June ".....	17613	609	8 $\frac{1}{2}$	147	2	..	..	10688
September ".....	15069	600	9 $\frac{1}{2}$	125	2	..	..	10250
December ".....	14362	593	10	4	..	..	..	11494
March, 1881.....	15375	596	9 $\frac{1}{2}$	199	3	..	..	10107
June ".....	21621	660	7 $\frac{1}{2}$	335	3 $\frac{1}{2}$	..	..	11254
September ".....	17362	630	8 $\frac{3}{8}$	184	2 $\frac{1}{2}$	..	..	11542
December ".....	17024	606	8 $\frac{1}{2}$	124	1 $\frac{1}{2}$	..	..	11377
March, 1882.....	16838	637	9	121	1 $\frac{1}{2}$	..	..	10945
June ".....	22134	660	7 $\frac{1}{2}$	384	4 $\frac{1}{2}$	..	..	12395
September ".....	18328	637	8 $\frac{1}{2}$	419	5 $\frac{1}{2}$	..	..	12263
December ".....	18801	649	8 $\frac{1}{2}$	322	4	..	..	12564
March, 1883.....	20091	704	8 $\frac{3}{8}$	183	2 $\frac{1}{2}$	..	..	15967
June ".....	25186	772	7 $\frac{1}{2}$	537	5	..	..	13817
September ".....	20457	701	8 $\frac{1}{4}$	355	4 $\frac{1}{2}$	..	..	13335
December ".....	20322	705	8 $\frac{1}{4}$	186	2 $\frac{1}{2}$	..	..	12988
March, 1884.....	20277	687	8 $\frac{1}{4}$	292	3 $\frac{1}{2}$	..	..	13955
June " (14 weeks)	31093	881	6 $\frac{1}{2}$	567	4 $\frac{1}{2}$	..	..	14274
September ".....	26084	802	7 $\frac{1}{2}$	372	3 $\frac{1}{2}$	..	..	14675
December ".....	22240	780	8 $\frac{3}{8}$	355	3 $\frac{1}{2}$	..	..	16576

## MANCHESTER BOOT AND SHOE TRADE.—Continued.

From the time of commencing to keep a separate Account.

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	d.	£	d.	£	d.	£
March, 1885.....	26485	930	8½	80	0½	..	..	17766
June ".....	31199	919	7	535	4	..	..	16088
September ".....	24394	840	8½	504	4½	..	..	16240
December ".....	24677	907	8½	276	2½	..	..	16074
March, 1886.....	27103	890	7½	892	8½	..	..	17581
June ".....	38429	1083	6½	606	8½	..	..	17772
September ".....	27000	968	8½	876	7½	..	..	17066
December ".....	28900	881	7½	898	7½	..	..	16578
March, 1887.....	28969	952	7½	704	5½	..	..	21418
June ".....	38380	1148	7½	1174	7½	..	..	21044
September ".....	28887	978	8½	608	5½	..	..	19566
December ".....	30363	992	7½	597	4½	..	..	19727
March, 1888.....	28807	1224	10½	123	1	..	..	24986
June ".....	44148	1281	6½	1181	6½	..	..	23255
September ".....	32611	1181	8½	884	6½	..	..	21480
December ".....	39622	1178	8½	752	5½	..	..	22680
March, 1889.....	36117	1358	8½	417	2½	..	..	25798
June ".....	49279	1415	6½	1392	6½	..	..	22889
September " (14 weeks).....	37634	1380	8½	929	5½	..	..	26885
December ".....	39972	1358	8½	1034	6½	..	..	24067
March, 1890 (12 weeks).....	40929	1391	8½	811	4½	..	..	32937
June " (14 weeks).....	60371	1662	6½	1802	7½	..	..	29680
September ".....	41042	1447	8½	1013	5½	..	..	29082
December ".....	46188	1483	7½	1331	6½	..	..	32095
March, 1891.....	56667	1780	7½	668	2½	..	..	41852
June ".....	59897	1842	7½	1628	6½	..	..	37891
September ".....	50425	1757	8½	1292	0	..	..	39962
December ".....	51191	1815	8½	1385	6½	..	..	36875
March, 1892.....	56859	2238	9½	680	2½	..	..	44708
June ".....	73503	2523	8½	1286	4½	..	..	44749
September ".....	49268	2237	10½	541	2½	..	..	52322
December ".....	53467	2324	10½	537	2½	..	..	52169
March, 1893.....	58886	2502	10½	868	8½	..	..	60513
June ".....	66922	2529	9	1078	8½	..	..	59015
	2144319	73589	8½	39221	..	254	..	..
Less Loss.....				254	..			
Leaves Net Profit.....				38967	4½			

## MANCHESTER FURNISHING TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
October, 1876 (14 weeks)	3036	188	1 2 $\frac{3}{4}$	..	..	57	0 4	2843
January, 1877 .....	2908	217	1 6	5	0 0 $\frac{3}{4}$	..	..	2571
April " .....	3813	250	1 3 $\frac{3}{4}$	37	0 3	..	..	2428
July " .....	3426	216	1 5 $\frac{1}{2}$	..	..	24	0 1 $\frac{1}{2}$	2274
October " .....	4166	242	1 1 $\frac{1}{2}$	45	0 2 $\frac{3}{4}$	..	..	2343
January, 1878.....	4059	276	1 4 $\frac{1}{2}$	7	0 0 $\frac{3}{4}$	..	..	2286
April " .....	4397	310	1 4 $\frac{1}{2}$	121	0 6	..	..	2245
July " .....	4141	291	1 4 $\frac{1}{2}$	14	0 0 $\frac{1}{2}$	..	..	2272
October " .....	4320	307	1 5	29	0 1 $\frac{3}{4}$	..	..	2279
January, 1879.....	4516	277	1 2 $\frac{3}{4}$	..	..	24	0 1 $\frac{1}{4}$	2421
March " (10 weeks)	3624	218	1 2	26	0 1 $\frac{1}{2}$	..	..	2637
June " (14 weeks)	5249	325	1 3 $\frac{3}{4}$	30	0 1 $\frac{1}{2}$	..	..	3074
September " .....	4291	280	1 3 $\frac{1}{4}$	..	..	38	0 1 $\frac{1}{8}$	3163
December " .....	5197	285	1 1	37	0 1 $\frac{1}{4}$	..	..	3524
March, 1880.....	6580	327	1 0	29	0 1	..	..	4013
June " .....	5144	347	1 4 $\frac{1}{2}$	4	0 0 $\frac{1}{2}$	..	..	4318
September " .....	5922	313	1 0 $\frac{3}{4}$	102	0 4 $\frac{1}{2}$	..	..	3969
December " .....	6647	330	0 11 $\frac{1}{4}$	269	0 9 $\frac{1}{2}$	..	..	4307
March, 1881.....	6209	333	1 0 $\frac{1}{4}$	..	..	14	0 0 $\frac{1}{4}$	4146
June " .....	6085	318	1 0 $\frac{1}{4}$	91	0 3 $\frac{1}{2}$	..	..	4496
Sept. " .....	5786	320	1 1 $\frac{1}{2}$	..	..	29	0 1 $\frac{1}{8}$	4089
December " .....	6814	322	0 11 $\frac{1}{2}$	123	0 4 $\frac{1}{2}$	..	..	3971
March, 1882.....	6783	351	1 0 $\frac{3}{4}$	115	0 4	..	..	4122
June " .....	6786	344	1 0 $\frac{1}{4}$	82	0 2 $\frac{1}{2}$	..	..	3827
Sept. " .....	7293	419	1 1 $\frac{1}{2}$	61	0 2	..	..	3721
Dec. " .....	8159	401	0 11 $\frac{1}{4}$	..	..	89	0 1 $\frac{1}{2}$	3630
March, 1883.....	7812	439	1 1 $\frac{1}{2}$	95	0 2 $\frac{1}{2}$	..	..	3845
June " .....	7936	455	1 1 $\frac{1}{2}$	99	0 2 $\frac{1}{2}$	..	..	4308
September " .....	7954	472	1 2 $\frac{1}{4}$	32	0 0 $\frac{1}{2}$	..	..	4337
December " .....	11102	512	0 11	197	0 4 $\frac{1}{2}$	..	..	4274
March, 1884.....	9850	540	1 1 $\frac{1}{2}$	204	0 4 $\frac{1}{2}$	..	..	5100
June " (14 weeks)	11280	595	1 0 $\frac{3}{4}$	..	..	26	0 0 $\frac{1}{4}$	5170
September " .....	11002	566	1 0 $\frac{1}{4}$	205	0 4 $\frac{1}{2}$	..	..	5072
December " .....	12179	552	0 10 $\frac{1}{4}$	290	0 5 $\frac{1}{2}$	..	..	5433
March, 1885.....	13126	626	0 11 $\frac{1}{2}$	329	0 6	..	..	5973
June " .....	12228	611	0 11 $\frac{1}{2}$	123	0 2 $\frac{3}{4}$	..	..	6145
September " .....	12539	582	0 11 $\frac{1}{2}$	166	0 3 $\frac{1}{2}$	..	..	5771
December " .....	13345	596	0 10 $\frac{3}{4}$	275	0 4 $\frac{1}{2}$	..	..	5817
March 1886.....	13929	624	0 10 $\frac{3}{4}$	207	0 3 $\frac{1}{2}$	..	..	5778
June " .....	15251	684	0 10 $\frac{1}{4}$	374	0 5 $\frac{1}{2}$	..	..	6234
September " .....	15277	650	0 10	182	0 2 $\frac{1}{2}$	..	..	5654
December " .....	17883	699	0 9 $\frac{3}{4}$	366	0 4 $\frac{1}{2}$	..	..	6041

MANCHESTER FURNISHING TRADE.—*Con.**From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
March, 1887.....	17284	676	0 9 $\frac{3}{4}$	277	0 8 $\frac{3}{4}$	..	..	7124
June ".....	18037	758	0 10	361	0 4 $\frac{1}{2}$	..	..	7335
September ".....	16546	956	1 1 $\frac{1}{2}$	79	0 1 $\frac{1}{2}$	..	..	8453
December ".....	21065	1107	1 0 $\frac{1}{2}$	229	0 2 $\frac{1}{2}$	..	..	9497
March, 1888.....	20315	1196	1 2 $\frac{1}{2}$	168	0 1 $\frac{1}{2}$	..	..	9372
June ".....	21172	1189	1 1 $\frac{1}{2}$	..	..	90	0 1	8851
September ".....	20205	1158	1 1 $\frac{1}{2}$	138	0 1 $\frac{1}{2}$	..	..	7944
December ".....	23792	1212	1 0 $\frac{1}{2}$	330	0 3 $\frac{1}{2}$	..	..	8548
March, 1889.....	21172	1230	1 1 $\frac{1}{4}$	33	0 0 $\frac{1}{2}$	..	..	9177
June ".....	23523	1233	1 0 $\frac{1}{2}$	494	0 5	..	..	8985
September " (14 weeks)	23318	1229	1 0 $\frac{1}{2}$	220	0 2 $\frac{1}{2}$	..	..	7990
December ".....	28150	1230	0 10 $\frac{3}{4}$	689	0 5 $\frac{1}{2}$	..	..	9770
March, 1890 (12 weeks)	24872	1194	0 11 $\frac{1}{4}$	463	0 4 $\frac{1}{2}$	..	..	11021
June " (14 weeks)	33177	1430	0 10 $\frac{1}{2}$	655	0 4 $\frac{1}{2}$	..	..	11478
September ".....	28968	1354	0 11 $\frac{1}{4}$	369	0 3	..	..	10544
December ".....	35644	1411	0 9 $\frac{1}{2}$	864	0 5 $\frac{1}{2}$	..	..	12930
March, 1891.....	32981	1500	0 10 $\frac{1}{2}$	360	0 2 $\frac{1}{2}$	..	..	13518
June ".....	32471	1482	0 10 $\frac{1}{2}$	359	0 2 $\frac{1}{2}$	..	..	14285
September ".....	33398	1466	0 10 $\frac{1}{2}$	396	0 2 $\frac{1}{2}$	..	..	12312
December ".....	38256	1545	0 9 $\frac{3}{4}$	893	0 5 $\frac{1}{2}$	..	..	12567
March, 1892.....	33409	1747	1 0 $\frac{1}{2}$	..	..	26	0 0 $\frac{1}{2}$	13557
June ".....	37473	2036	1 1	296	0 1 $\frac{1}{2}$	..	..	13983
September ".....	31686	1866	1 2 $\frac{1}{4}$	..	..	41	0 0 $\frac{1}{2}$	12592
December ".....	40418	1910	0 11 $\frac{1}{4}$	90	0 0 $\frac{1}{2}$	..	..	13455
March, 1893.....	35083	1902	1 1	9	..	..	..	15263
June ".....	38061	1968	1 0 $\frac{3}{4}$	91	0 0 $\frac{1}{2}$	..	..	16252
	1058420	59025	1 0	12274	..	403	..	..
	Less Loss.....			403	..			
	Leaves Net Profit .....			11871	0 2 $\frac{1}{2}$			

## NEWCASTLE BRANCH GROCERY AND PROVISION TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
April, 1876 .....	181789	1791	0 9½	1768	0 9½	..	..	26712
July " .....	124398	1938	0 3½	1161	0 2½	..	..	32241
October, 1876 (14 weeks)	152237	2036	0 3½	766	0 1½	..	..	4090E
January, 1877 .....	120625	1962	0 3½	836	0 1½	..	..	34591
April " .....	132575	2053	0 3½	1389	0 2	..	..	30086
July " .....	141614	1990	0 3½	1218	0 2½	..	..	22718
October " .....	140902	2001	0 3½	919	0 1	..	..	29594
January, 1878 .....	126692	2169	0 4½	613	0 1½	..	..	28996
April " .....	120800	2028	0 4	963	0 2	..	..	26039
July " .....	112256	1898	0 4	647	0 1½	..	..	20350
October " .....	111069	1679	0 3	903	0 1½	..	..	24383
May, 1879 .....	118972	1797	0 3½	635	0 1½	..	..	22789
March " (10 weeks)	85774	1815	0 3½	2648	0 7½	..	..	25284
June " (14 weeks)	118673	1886	0 3½	1470	0 3	..	..	21031
September " .....	119668	1697	0 3½	..	..	167	0 0½	29290
December " .....	145998	1925	0 3½	3283	0 5½	..	..	49145
March, 1880 .....	146614	2064	0 3½	1023	0 1½	..	..	40786
June " .....	145848	1905	0 3½	734	0 1½	..	..	25906
September " .....	142258	1858	0 3½	1185	0 2	..	..	33883
December " .....	153944	2041	0 3½	1694	0 2½	..	..	44398
March, 1881 .....	152124	2254	0 3½	2699	0 4½	..	..	41400
June " .....	169531	2098	0 2½	1759	0 2½	..	..	48127
Sept. " .....	191300	2187	0 2½	3600	0 4½	..	..	54764
Dec. " .....	190382	2382	0 8	1288	0 1½	..	..	54648
March, 1882 .....	181358	2486	0 3½	1029	0 1½	..	..	49740
June " .....	190600	2418	0 3½	2488	0 3½	..	..	49724
Sept. " .....	204549	2519	0 2½	3520	0 4½	..	..	52044
Dec. " .....	218500	2675	0 2½	1704	0 1½	..	..	65330
March, 1883 .....	196039	2741	0 3½	1467	0 1½	..	..	66285
June " .....	208842	2751	0 3½	3226	0 3½	..	..	65103
Sept. " .....	230513	2582	0 2½	3011	0 3½	..	..	44265
Dec. " .....	236203	2711	0 2½	2772	0 2½	..	..	55152
March, 1884 .....	222807	2806	0 3	2954	0 3½	..	..	55878
June " (14 weeks) ..	240710	2944	0 2½	2468	0 2½	..	..	41760
Sept. " .....	235087	2822	0 2½	4468	0 4½	..	..	48207
Dec. " .....	232199	2823	0 2½	2561	0 2½	..	..	65158
March, 1885 .....	216816	2996	0 3½	2913	0 3½	..	..	65563
June " .....	232467	3145	0 3½	4953	0 5½	..	..	79425
Sept. " .....	240409	2888	0 2½	3462	0 3½	..	..	70555
Dec. " .....	246850	3046	0 2½	3094	0 3	..	..	63546
March, 1886 .....	220254	2827	0 3	3066	0 3½	..	..	46224
June " .....	223551	2938	0 3½	4453	0 4½	..	..	55673
Sept. " .....	244049	3127	0 3	5281	0 5½	..	..	68142
Dec. " .....	262024	3429	0 3½	5994	0 5½	..	..	71265

NEWCASTLE BRANCH GROCERY AND PROVISION TRADE.—*Con.**From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
March, 1887 .....	229481	3698	0 3½	4004	0 4½	..	..	72331
June " .....	238169	3608	0 3½	2198	0 2½	..	..	62551
Sept. " .....	248900	3250	0 3½	2136	0 2	..	..	63501
Dec. " .....	249598	3664	0 3½	2598	0 2½	..	..	59632
March, 1888 .....	232299	3387	0 3½	3058	0 3½	..	..	58962
June " .....	242155	3545	0 3	2127	0 2	..	..	51199
Sept. " .....	264313	3450	0 3½	6454	0 5½	..	..	71300
Dec. " .....	288761	3743	0 3	7509	0 6½	..	..	65888
March, 1889 .....	248673	3627	0 3½	1608	0 1½	..	..	52708
June " .....	261128	3570	0 3½	5826	0 5½	..	..	42024
Sept. " (14 weeks) ..	291085	3657	0 3	4407	0 3½	..	..	47748
Dec. " .....	299565	4093	0 3½	6520	0 5½	..	..	55671
March, 1890 (12 weeks) ..	243911	3421	0 3½	5001	0 4½	..	..	45135
June " (14 weeks) ..	302728	3983	0 3½	6216	0 4½	..	..	84939
Sept. " .....	296599	3759	0 3	7301	0 5½	..	..	39664
Dec. " .....	330638	3984	0 2½	7978	0 5½	..	..	42136
March, 1891 .....	305909	4063	0 3½	7047	0 5½	..	..	44673
June " .....	336379	4125	0 2½	8605	0 6½	..	..	35243
Sept. " .....	377646	4234	0 2½	8594	0 5½	..	..	49564
Dec. " .....	411915	4522	0 2½	7234	0 4½	..	..	54737
March, 1892 .....	373558	4570	0 2½	7644	0 4½	..	..	58840
June " .....	343857	4566	0 3½	6817	0 4½	..	..	54424
Sept. " .....	404503	4713	0 2½	11377	0 6½	..	..	50504
Dec. " .....	442203	5137	0 2½	11232	0 6	..	..	60431
March, 1893 .....	372336	5685	0 3½	9233	0 5½	..	..	52253
June " .....	377646	5378	0 3½	8323	0 5½	..	..	52913
	15783515	209060	0 3½	259247	..	167	..	..
	Less Loss .....			167	..			
	Leaves Net Profit .....			259080	0 3½			



## NEWCASTLE BRANCH DRAPERY TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
April, 1876 .....	6990	318	0 10 $\frac{1}{2}$	117	0 4	8696
July " .....	9534	419	0 10 $\frac{1}{2}$	120	0 3	8087
October " (14 weeks).....	12052	456	0 9 $\frac{1}{2}$	444	0 8 $\frac{1}{2}$	10942
January, 1877 .....	11320	535	0 11 $\frac{1}{2}$	115	0 2 $\frac{1}{2}$	11525
April " .....	12394	537	0 10 $\frac{1}{2}$	386	0 7 $\frac{1}{2}$	11321
July " .....	13707	555	0 9 $\frac{1}{2}$	331	0 5 $\frac{1}{2}$	11142
October " .....	12719	545	0 10 $\frac{1}{2}$	114	0 2 $\frac{1}{2}$	12068
January, 1878 .....	10739	574	1 0 $\frac{1}{2}$	168	0 3 $\frac{1}{2}$	11635
April " .....	10539	554	1 0 $\frac{1}{2}$	213	0 4 $\frac{1}{2}$	11040
July " .....	10563	550	1 0 $\frac{1}{2}$	2	..	9678
October " .....	11834	515	0 10 $\frac{1}{2}$	294	0 5 $\frac{1}{2}$	10331
January, 1879 .....	11225	540	0 11	103	0 2 $\frac{1}{2}$	10463
March " (10 weeks).....	8592	448	1 0 $\frac{1}{2}$	224	0 6 $\frac{1}{2}$	11404
June " (14 weeks).....	11025	583	1 0 $\frac{1}{2}$	213	0 4 $\frac{1}{2}$	9531
Sept. " (14 weeks).....	11111	544	0 11 $\frac{1}{2}$	227	0 4 $\frac{1}{2}$	10576
Dec. " .....	18946	578	0 9 $\frac{1}{2}$	207	0 3 $\frac{1}{2}$	11590
March, 1880 .....	14399	622	0 10 $\frac{1}{2}$	548	0 9 $\frac{1}{2}$	15114
June " .....	13770	598	0 10 $\frac{1}{2}$	751	1 1	15773
Sept. " .....	12599	624	0 11 $\frac{1}{2}$	566	0 10 $\frac{1}{2}$	16392
Dec. " .....	15211	650	0 10 $\frac{1}{2}$	341	0 5 $\frac{1}{2}$	16171
March, 1881 .....	15827	666	0 10	601	0 9 $\frac{1}{2}$	15779
June " .....	16949	654	0 9 $\frac{1}{2}$	785	0 11	14972
Sept. " .....	16499	657	0 9 $\frac{1}{2}$	445	0 6 $\frac{1}{2}$	15812
Dec. " .....	19806	679	0 8 $\frac{1}{2}$	508	0 6 $\frac{1}{2}$	16075
March, 1882 .....	18605	711	0 9	943	1 0 $\frac{1}{2}$	16677
June " .....	20018	727	0 8 $\frac{1}{2}$	720	0 8 $\frac{1}{2}$	16358
Sept. " .....	19620	725	0 8 $\frac{1}{2}$	659	0 8	16067
Dec. " .....	26214	812	0 7 $\frac{1}{2}$	1334	1 0 $\frac{1}{2}$	15754
March, 1883 .....	22157	837	0 9	829	0 8 $\frac{1}{2}$	17957
June " .....	24710	830	0 8	1259	1 0 $\frac{1}{2}$	15699
Sept. " .....	22708	842	0 8 $\frac{1}{2}$	925	0 9 $\frac{1}{2}$	18258
Dec. " .....	29784	878	0 7	1486	0 11 $\frac{1}{2}$	16594
March, 1884 .....	26436	907	0 8 $\frac{1}{2}$	991	0 9	18875
June " (14 weeks).....	29550	1011	0 8 $\frac{1}{2}$	1125	0 9 $\frac{1}{2}$	18062
Sept. " .....	26800	1021	0 9 $\frac{1}{2}$	862	0 7 $\frac{1}{2}$	18470
Dec. " .....	35559	1044	0 7	1525	0 10 $\frac{1}{2}$	18906
March, 1885 .....	33946	1062	0 7 $\frac{1}{2}$	1651	0 11 $\frac{1}{2}$	20675
June " .....	35822	1114	0 7 $\frac{1}{2}$	1671	0 11 $\frac{1}{2}$	22002
Sept. " .....	33776	1104	0 7 $\frac{1}{2}$	1801	1 0 $\frac{1}{2}$	22923
Dec. " .....	39157	1318	0 8	1783	0 10 $\frac{1}{2}$	24084
March, 1886 .....	34600	1274	0 8 $\frac{1}{2}$	1616	0 11 $\frac{1}{2}$	23006
June " .....	33560	1304	0 7 $\frac{1}{2}$	2093	1 0 $\frac{1}{2}$	22461
Sept. " .....	34858	1261	0 8 $\frac{1}{2}$	1743	1 0	26253
Dec. " .....	43415	1503	0 8 $\frac{1}{2}$	2110	0 11 $\frac{1}{2}$	28645

NEWCASTLE BRANCH DRAPERY TRADE.—*Con.**From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
March, 1887.....	33556	1454	0 10 <sup>3</sup> / <sub>4</sub>	1414	0 10 <sup>3</sup> / <sub>4</sub>	29452
June ".....	36689	1514	0 9 <sup>1</sup> / <sub>2</sub>	1369	0 8 <sup>1</sup> / <sub>2</sub>	26594
Sept. ".....	35716	1378	0 9 <sup>1</sup> / <sub>2</sub>	1807	1 0 <sup>1</sup> / <sub>2</sub>	27540
Dec. ".....	38752	1522	0 9 <sup>1</sup> / <sub>2</sub>	1255	0 7 <sup>1</sup> / <sub>2</sub>	25753
March, 1888.....	37258	1464	0 9 <sup>3</sup> / <sub>4</sub>	1778	0 11 <sup>3</sup> / <sub>4</sub>	28326
June ".....	41885	1527	0 8 <sup>3</sup> / <sub>4</sub>	1437	0 8 <sup>3</sup> / <sub>4</sub>	27390
Sept. ".....	36675	1416	0 9 <sup>1</sup> / <sub>2</sub>	1620	0 10 <sup>1</sup> / <sub>2</sub>	26756
Dec. ".....	46156	1566	0 8 <sup>3</sup> / <sub>4</sub>	1588	0 7 <sup>3</sup> / <sub>4</sub>	30177
March, 1889.....	40867	1647	0 9 <sup>3</sup> / <sub>4</sub>	1179	0 6 <sup>3</sup> / <sub>4</sub>	33308
June ".....	46641	1642	0 8 <sup>3</sup> / <sub>4</sub>	1787	0 9 <sup>3</sup> / <sub>4</sub>	28639
Sept. " (14 weeks).....	45285	1526	0 8	2247	0 11 <sup>3</sup> / <sub>4</sub>	29344
Dec. ".....	52650	1700	0 7 <sup>3</sup> / <sub>4</sub>	2387	0 10 <sup>3</sup> / <sub>4</sub>	32799
March, 1890 (12 weeks).....	51449	1641	0 7 <sup>3</sup> / <sub>4</sub>	2090	0 9 <sup>3</sup> / <sub>4</sub>	35387
June " (14 weeks).....	64451	1769	0 6 <sup>3</sup> / <sub>4</sub>	3518	1 1	31444
Sept. ".....	52614	1666	0 7 <sup>3</sup> / <sub>4</sub>	1928	0 8 <sup>3</sup> / <sub>4</sub>	34019
Dec. ".....	63846	1774	0 6 <sup>3</sup> / <sub>4</sub>	3052	0 11 <sup>3</sup> / <sub>4</sub>	33216
March, 1891.....	64660	1861	0 6 <sup>3</sup> / <sub>4</sub>	3102	0 11 <sup>3</sup> / <sub>4</sub>	35463
June ".....	61882	1848	0 7 <sup>3</sup> / <sub>4</sub>	3255	1 0 <sup>3</sup> / <sub>4</sub>	34561
Sept. ".....	56368	1833	0 7 <sup>3</sup> / <sub>4</sub>	2111	0 8 <sup>3</sup> / <sub>4</sub>	38584
Dec. ".....	63556	1958	0 6 <sup>3</sup> / <sub>4</sub>	2418	0 8 <sup>3</sup> / <sub>4</sub>	35964
March, 1892.....	56448	1956	0 8 <sup>1</sup> / <sub>2</sub>	1949	0 8 <sup>1</sup> / <sub>2</sub>	42429
June ".....	50808	1841	0 8 <sup>3</sup> / <sub>4</sub>	2019	0 9 <sup>3</sup> / <sub>4</sub>	31215
Sept. ".....	59924	1866	0 7 <sup>3</sup> / <sub>4</sub>	3015	1 0	34938
Dec. ".....	73823	2133	0 6 <sup>3</sup> / <sub>4</sub>	2748	0 8 <sup>3</sup> / <sub>4</sub>	36570
March, 1893.....	61141	2220	0 8 <sup>3</sup> / <sub>4</sub>	2026	0 7 <sup>3</sup> / <sub>4</sub>	43565
June ".....	66823	2469	0 8 <sup>3</sup> / <sub>4</sub>	2963	0 10 <sup>3</sup> / <sub>4</sub>	38860
	2245563	78877	0 8 <sup>3</sup> / <sub>4</sub>	90961	0 9 <sup>3</sup> / <sub>4</sub>	..

## NEWCASTLE BRANCH BOOT AND SHOE TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
April, 1876.....	5058	149	0 7 $\frac{1}{2}$	..	..	110	0 5 $\frac{1}{2}$	1154
July ".....	6969	159	0 5 $\frac{1}{2}$	284	0 9 $\frac{1}{2}$	..	..	1926
October " (14 wks)	8006	179	0 5 $\frac{1}{2}$	101	0 3	..	..	1180
January, 1877.....	5346	162	0 7 $\frac{1}{2}$	131	0 5 $\frac{1}{2}$	..	..	1505
April ".....	6211	170	0 5 $\frac{1}{2}$	130	0 5	..	..	1584
July ".....	6871	175	0 6 $\frac{1}{2}$	171	0 5 $\frac{1}{2}$	..	..	1526
October ".....	8254	207	0 6	266	0 7 $\frac{1}{2}$	..	..	1885
January, 1878.....	7089	208	0 7 $\frac{1}{2}$	123	0 4 $\frac{1}{2}$	..	..	2242
April ".....	6772	210	0 7 $\frac{1}{2}$	128	0 4 $\frac{1}{2}$	..	..	2577
July ".....	7252	226	0 7 $\frac{1}{2}$	57	0 1 $\frac{1}{2}$	..	..	8105
October ".....	7441	221	0 7	116	0 8 $\frac{1}{2}$	..	..	2080
January, 1879.....	6910	223	0 7 $\frac{1}{2}$	14	0 0 $\frac{1}{2}$	..	..	3179
March " (10 wks)	5138	193	0 9	25	0 1 $\frac{1}{2}$	..	..	8708
June " (14 wks)	6919	245	0 8 $\frac{1}{2}$	83	0 2 $\frac{1}{2}$	..	..	2587
September, ".....	7733	233	0 7 $\frac{1}{2}$	103	0 8 $\frac{1}{2}$	..	..	2443
December, ".....	7918	264	0 8	146	0 4 $\frac{1}{2}$	..	..	4681
March, 1880.....	9101	345	0 9	241	0 6 $\frac{1}{2}$	..	..	5200
June ".....	8053	325	0 9 $\frac{1}{2}$	189	0 5 $\frac{1}{2}$	..	..	5737
September ".....	8599	271	0 7 $\frac{1}{2}$	174	0 4 $\frac{1}{2}$	..	..	4815
December ".....	9215	335	0 8 $\frac{1}{2}$	45	0 1 $\frac{1}{2}$	..	..	5971
March, 1881.....	9592	329	0 8 $\frac{1}{2}$	193	0 4 $\frac{1}{2}$	..	..	4632
June ".....	10465	322	0 7 $\frac{1}{2}$	88	0 0 $\frac{1}{2}$	..	..	5262
Sept. ".....	10958	324	0 7	427	0 9 $\frac{1}{2}$	..	..	4372
Dec. ".....	11976	332	0 6 $\frac{1}{2}$	280	0 5 $\frac{1}{2}$	..	..	4645
March, 1882.....	11988	351	0 7	240	0 4 $\frac{1}{2}$	..	..	5110
June ".....	13064	351	0 6 $\frac{1}{2}$	416	0 7 $\frac{1}{2}$	..	..	5027
Sept. ".....	13672	376	0 6 $\frac{1}{2}$	340	0 5 $\frac{1}{2}$	..	..	5743
Dec. ".....	15763	449	0 6 $\frac{1}{2}$	340	0 5 $\frac{1}{2}$	..	..	6561
March, 1883.....	14318	480	0 8	298	0 4 $\frac{1}{2}$	..	..	5988
June ".....	16635	477	0 6 $\frac{1}{2}$	384	0 5 $\frac{1}{2}$	..	..	6018
Sept. ".....	16146	491	0 7 $\frac{1}{2}$	544	0 8	..	..	5377
Dec. ".....	18402	507	0 6 $\frac{1}{2}$	664	0 8 $\frac{1}{2}$	..	..	5817
March, 1884.....	16982	565	0 7 $\frac{1}{2}$	335	0 4 $\frac{1}{2}$	..	..	6508
June " (14 wks)	19686	589	0 7 $\frac{1}{2}$	737	0 8 $\frac{1}{2}$	..	..	7740
Sept. ".....	18020	660	0 8 $\frac{1}{2}$	352	0 4 $\frac{1}{2}$	..	..	7723
Dec. ".....	20366	594	0 6 $\frac{1}{2}$	498	0 5 $\frac{1}{2}$	..	..	8266
March, 1885.....	20514	621	0 7 $\frac{1}{2}$	660	0 7 $\frac{1}{2}$	..	..	7877
June ".....	22600	636	0 6 $\frac{1}{2}$	612	0 6 $\frac{1}{2}$	..	..	8057
Sept. ".....	21646	668	0 7 $\frac{1}{2}$	650	0 7 $\frac{1}{2}$	..	..	8276
Dec. ".....	24357	858	0 8 $\frac{1}{2}$	273	0 2 $\frac{1}{2}$	..	..	11319

NOTE.—To December, 1888, the figures include Furnishing Department.

NEWCASTLE BRANCH BOOT AND SHOE TRADE.—*Con.**From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	
March, 1886 .....	1856	846	0 9½	408	0 4½	..	..	10687
June " .....	26262	906	0 8½	439	0 4	..	..	11686
Sept. " .....	23452	897	0 9½	495	0 5	..	..	18662
Dec. " .....	25578	997	0 9½	277	0 2½	..	..	13442
March, 1887 .....	21650	1020	0 11½	234	0 2½	..	..	12164
June " .....	22594	999	0 10½	195	0 2	..	..	13721
Sept. " .....	23988	909	0 9	454	0 4½	..	..	12909
Dec. " .....	22797	1001	0 10½	290	0 3	..	..	13974
March, 1888 .....	24279	940	0 9½	408	0 3½	..	..	12619
June " .....	26027	1009	0 9½	401	0 3½	..	..	13308
Sept. " .....	24055	989	0 9½	615	0 6½	..	..	12181
* Dec. " .....	26911	1090	0 9½	128	0 1½	..	..	14483
March, 1889 .....	18785	891	0 11½	259	0 3½	..	..	10155
June " .....	24659	920	0 8½	286	0 2½	..	..	15164
Sept. " (14 weeks) .....	24654	874	0 8½	406	0 3½	..	..	12943
Dec. " .....	22490	885	0 9½	285	0 3	..	..	12463
March, 1890 (12 weeks) .....	23763	861	0 8½	299	0 3	..	..	13117
June " (14 weeks) .....	31492	972	0 7½	728	0 5½	..	..	14720
Sept. " .....	28227	975	0 8½	599	0 5	..	..	16058
Dec. " .....	23667	945	0 7½	673	0 5½	..	..	11870
March, 1891 .....	32032	957	0 7½	591	0 4½	..	..	14834
June " .....	33249	968	0 7	887	0 6½	..	..	15129
Sept. " .....	31857	981	0 7½	784	0 5½	..	..	14706
Dec. " .....	27569	950	0 8½	865	0 7½	..	..	12623
March, 1892 .....	28781	967	0 8½	..	..	6	..	14524
June " .....	29330	990	0 8	651	0 5½	..	..	15712
Sept. " .....	33516	1006	0 7½	1046	0 7½	..	..	17056
Dec. " .....	33857	1081	0 7½	940	0 6½	..	..	15587
March, 1893 .....	33812	1273	0 9½	436	0 3½	..	..	21670
June " .....	33839	1217	0 8½	574	0 4½	..	..	26127
	1281973	43781	0 8½	25416	..	116	..	..
	Less Loss .....			116	..			
	Leaves Net Profit .....			25330	0 4½			

\* NOTE.—To December, 1888, the figures include Furnishing Department.

## NEWCASTLE BRANCH FURNISHING TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
March, 1889 .....	*6345	600	1 10 $\frac{3}{4}$	..	..	340	1 0 $\frac{3}{4}$	4742
June " .....	12845	669	1 0 $\frac{3}{4}$	..	..	109	0 2	7731
Sept. " (14 weeks) .....	12578	676	1 0 $\frac{3}{4}$	165	0 3 $\frac{1}{2}$	..	..	8757
Dec. " .....	17310	791	0 10 $\frac{3}{4}$	172	0 2 $\frac{3}{4}$	..	..	6696
March, 1890 (12 weeks) .....	15620	741	0 11 $\frac{3}{4}$	349	0 5 $\frac{1}{4}$	..	..	7784
June " (14 weeks) .....	26088	928	0 8 $\frac{1}{2}$	848	0 7 $\frac{1}{4}$	..	..	9046
Sept. " .....	21604	897	0 9 $\frac{7}{8}$	366	0 4	..	..	9074
Dec. " .....	26147	985	0 9	936	0 8 $\frac{1}{2}$	..	..	10474
March, 1891 .....	22761	967	0 10 $\frac{1}{4}$	260	0 2 $\frac{3}{4}$	..	..	11415
June " .....	28616	1077	0 9	1020	0 8 $\frac{1}{2}$	..	..	12518
Sept. " .....	21524	1038	0 11 $\frac{1}{2}$	278	0 3	..	..	12367
Dec. " .....	26338	1138	0 10 $\frac{1}{4}$	620	0 5 $\frac{3}{4}$	..	..	12002
March, 1892 .....	18068	1020	1 1 $\frac{1}{2}$	..	..	51	0 0 $\frac{5}{8}$	12184
June " .....	16604	996	1 2 $\frac{3}{4}$	150	0 2 $\frac{1}{4}$	..	..	11854
Sept. " .....	20914	1011	0 11 $\frac{1}{2}$	386	0 4 $\frac{1}{2}$	..	..	10787
Dec. " .....	26379	1160	0 10 $\frac{1}{2}$	739	0 6 $\frac{3}{4}$	..	..	11833
March, 1893 .....	17382	1172	1 4 $\frac{1}{2}$	..	..	225	0 3	12515
June " .....	23182	1481	1 3 $\frac{1}{4}$	340	0 3 $\frac{1}{2}$	..	..	12964
	360257	17347	0 11 $\frac{1}{2}$	6629	..	725	..	..
	Less Loss .....			725	..			
	Leaves Net Profit .....			5904	0 3 $\frac{1}{2}$			

\* Carpets transferred to this Department in following quarter.

## LONDON BRANCH GROCERY TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	SALES.	EXPENSES.		PROFIT.		Stocks.
		Am't.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
July, 1874 .....	17472	440	0 6	381	0 4	6628
Oct. " .....	26734	587	0 5½	68	0 0½	11039
January, 1875 .....	28179	515	0 4½	168	0 1½	7315
April " .....	25966	585	0 5½	157	0 0½	4829
July " .....	30695	597	0 4½	101	0 0½	4877
October " .....	37126	597	0 8½	553	0 3½	5194
January, 1876 .....	36965	586	0 8½	778	0 5	7219
April " .....	37273	784	0 4½	609	0 4	4190
July " .....	49039	704	0 8½	895	0 5	5616
October " (14 weeks) .....	55687	743	0 8½	1422	0 6½	1827
January, 1877 .....	48880	845	0 4½	1256	0 6½	12668
April " .....	46783	822	0 4½	641	0 3½	8059
July " .....	50612	826	0 8½	218	0 1	6141
October " .....	62001	811	0 8½	925	0 8	6597
January, 1878 .....	51019	824	0 3½	536	0 2	10511
April " .....	48716	815	0 4	605	0 8	9063
July " .....	49307	838	0 4	518	0 2	5938
October " .....	62502	851	0 8½	551	0 2	8239
January, 1879 .....	55789	697	0 8½	714	0 8	8489
March " (10 weeks) .....	39584	693	0 4½	482	0 2½	7917
June " (14 weeks) .....	59150	919	0 8½	837	0 3½	7833
September, " .....	64211	952	0 3	1374	0 5½	9417
December, " .....	69715	1006	0 3½	2546	0 8½	13594
March, 1880 .....	60878	980	0 8½	792	0 3½	11167
June " .....	66697	948	0 8½	1086	0 3½	9112
September " .....	76145	951	0 2½	1088	0 3½	12386
December " .....	71245	1187	0 4	598	0 2	20769
March, 1881 .....	62706	1528	0 5½	87	0 0½	17204
June " .....	67500	1254	0 4½	610	0 2½	13227
September " .....	82056	1262	0 8½	864	0 2½	12045
December " .....	77486	1266	0 8½	583	0 1½	7394
March, 1882 .....	64724	1234	0 4½	695	0 2½	6652
June " .....	66034	1230	0 4½	900	0 3½	7615
September " .....	79407	1237	0 8½	1006	0 3	11636
December " .....	86602	1240	0 8½	1175	0 3½	10636
March, 1883 .....	76284	1279	0 4	847	0 2½	7758
June " .....	76218	1274	0 4	748	0 2½	8254
September " .....	92723	1288	0 8½	1482	0 3½	1353
December " .....	92528	1600	0 4½	1553	0 4	13282
March, 1884 .....	79833	1440	0 4½	1357	0 4	12758
June " (14 weeks) .....	88403	1515	0 4	969	0 2½	12422
September " .....	100541	1433	0 8½	1257	0 3	11849
December " .....	107186	1845	0 4½	1479	0 3½	18869

LONDON BRANCH GROCERY TRADE.—*Con.**From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	SALES.	EXPENSES.		PROFIT.		Stocks.
		Am't	Rate.	Amonnt.	Rate.	
	£	£	s. d.	£	£	£
March, 1885.....	94496	1882	0 4 $\frac{3}{4}$	2482	0 6 $\frac{1}{2}$	18351
June ".....	107506	1797	0 4	2121	0 4 $\frac{3}{4}$	16601
Sept. ".....	117471	1822	0 3 $\frac{3}{4}$	1845	0 3 $\frac{3}{4}$	20042
December ".....	126403	2034	0 3 $\frac{1}{2}$	2653	0 5	24256
March, 1886.....	114451	2094	0 4 $\frac{3}{4}$	3195	0 6 $\frac{5}{8}$	19629
June ".....	118740	2019	0 4	1934	0 5 $\frac{1}{2}$	15310
September ".....	139957	2032	0 3 $\frac{3}{4}$	1694	0 2 $\frac{7}{8}$	20453
December ".....	154756	2318	0 3 $\frac{1}{2}$	2896	0 4 $\frac{3}{4}$	24739
March, 1887.....	128667	2387	0 4 $\frac{3}{4}$	1971	0 3 $\frac{3}{4}$	27940
June ".....	152416	2686	0 4 $\frac{3}{4}$	2130	0 3 $\frac{1}{2}$	27026
September ".....	174234	2543	0 3 $\frac{3}{4}$	2706	0 3 $\frac{3}{4}$	32589
December ".....	187565	3720	0 4 $\frac{3}{4}$	2032	0 2 $\frac{1}{2}$	47319
March, 1888.....	162077	3292	0 4 $\frac{7}{8}$	2576	0 3 $\frac{3}{4}$	37010
June ".....	171465	3323	0 4 $\frac{3}{4}$	1390	0 1 $\frac{1}{2}$	32296
September ".....	191133	3626	0 4 $\frac{3}{4}$	1841	0 2 $\frac{1}{2}$	40973
December ".....	214604	3787	0 4 $\frac{7}{8}$	3570	0 3 $\frac{5}{8}$	41562
March, 1889.....	178797	3557	0 4 $\frac{3}{4}$	2291	0 3	37114
June ".....	199566	3737	0 4 $\frac{3}{4}$	4227	0 5	39856
September " (14 weeks).....	234344	3816	0 3 $\frac{3}{4}$	1775	0 1 $\frac{3}{4}$	43068
December ".....	235671	4076	0 4 $\frac{3}{4}$	2374	0 2 $\frac{1}{2}$	44017
March, 1890 (12 weeks).....	190477	3825	0 4 $\frac{3}{4}$	3244	0 4	44947
June " (14 weeks).....	218790	4242	0 4 $\frac{3}{4}$	2084	0 2 $\frac{1}{2}$	37671
September ".....	222986	4132	0 4 $\frac{3}{4}$	2901	0 3	47143
December ".....	261217	4821	0 4 $\frac{3}{4}$	4439	0 4	57347
March, 1891.....	245815	4956	0 4 $\frac{3}{4}$	3153	0 3	49228
June ".....	256359	5078	0 4 $\frac{3}{4}$	3163	0 2 $\frac{1}{2}$	46274
September ".....	287105	5084	0 4 $\frac{3}{4}$	1517	0 1 $\frac{1}{2}$	56994
December ".....	333519	5792	0 4 $\frac{3}{4}$	3605	0 2 $\frac{1}{2}$	75578
March, 1892.....	291030	5827	0 4 $\frac{7}{8}$	4927	0 4 $\frac{1}{2}$	64499
June ".....	285441	5827	0 4 $\frac{3}{4}$	1789	0 1 $\frac{1}{2}$	49482
September ".....	302234	5825	0 4 $\frac{3}{4}$	2251	0 1 $\frac{3}{4}$	60193
December ".....	337740	6311	0 4 $\frac{3}{4}$	4566	0 3 $\frac{3}{8}$	73998
March, 1893.....	281378	5930	0 5	4625	0 3 $\frac{1}{2}$	69075
June ".....	286482	6132	0 5 $\frac{1}{2}$	2756	0 2 $\frac{1}{2}$	51931
	9627497	173548	0 4 $\frac{1}{2}$	128179	0 9 $\frac{1}{2}$	....

## LONDON BRANCH DRAPERY TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Drapery	SALES.		EXPENSES.		PROFIT.		Stocks
		Boots and Shoes.	Total.	Amount	Rate.	Amount.	Rate.	
	£	£	£	£	s. d.	£	s. d.	£
September, 1880 .....	.....	8366	8366	72	0 5½	78	0 5½	1215
December .....	1657	8134	4791	240	1 0	Loss 42	0 2	8805
March, 1881 .....	2504	2909	5418	806	1 1½	do. 92	0 4	4524
June .....	2653	8178	5826	807	1 0½	Profit 27	0 1	4730
September .....	3110	8497	6607	311	0 11½	18	0 0½	5118
December .....	4291	8869	8160	844	0 10½	196	0 5½	7054
March, 1882 .....	4050	8027	7077	358	1 0½	72	0 2½	6776
June .....	3582	8472	7054	393	1 1½	28	0 0½	6846
September .....	4413	4382	8795	406	0 11½	126	0 8½	7059
December .....	4891	4748	9639	479	0 11½	86	0 2½	9524
March, 1883 .....	5080	8566	8646	500	1 1½	87	0 2½	8854
June .....	4766	4560	9326	577	1 2½	91	0 2½	9486
September .....	5266	5099	10365	644	1 2½	22	0 0½	8130
December .....	6642	4758	11400	691	1 2½	86	0 1½	10011
March, 1884 .....	7504	8939	11448	665	1 1½	27	0 0½	8992
June .....	6306	4718	11024	688	1 8	158	0 8½	8308
September .....	6601	6259	12860	703	1 1½	165	0 8	9689
December .....	8592	4910	13502	751	1 1½	182	0 8½	9977
March, 1885 .....	9173	4694	13867	802	1 1½	171	0 2½	10497
June .....	8897	5729	14626	901	1 2½	91	0 1½	9936
September .....	9875	6369	16244	834	1 0½	89	0 1½	10642
December .....	12503	5532	18035	1017	1 1½	833	0 4½	11502
March, 1886 .....	12994	5402	18396	1065	1 1½	223	0 2½	11102
June .....	12257	5939	18196	1127	1 2½	15	0 0½	11034
September .....	13005	7541	20546	1107	1 0½	166	0 1½	12866
December .....	15498	7208	22701	1230	1 1	872	0 8½	13713
March, 1887 .....	14158	5838	19996	1228	1 2½	Loss 65	0 0½	16022
June .....	15689	6503	22192	1318	1 2½	Profit 37	0 1	15710
September .....	13966	6850	20816	1294	1 2½	Loss 39	0 0½	17571
December .....	19411	.....	19411	1690	1 8½	do. 184	0 2½	14967
March, 1888 .....	16955	.....	16955	1652	1 11½	do. 536	0 7½	18637
June .....	19660	.....	19660	1708	1 8½	do. 30	0 0½	17388
September .....	16832	.....	16832	1728	2 0½	do. 737	0 10½	18086
December .....	24441	.....	24441	1818	1 5½	do. 210	0 2	19484
March, 1889 .....	19404	.....	19404	1873	1 11½	do. 1025	1 0½	23621
June .....	12964	.....	12964	1899	2 1½	do. 213	0 8½	18591
September .....	14165	.....	14165	1401	1 11½	do. 779	1 1½	19998
December .....	14922	.....	14922	1383	1 10½	do. 942	1 3½	18189
March, 1890 (12wks) .....	18889	.....	18889	1296	1 10½	do. 1790	2 6½	16842
June .....	16646	.....	16646	1365	1 7½	do. 88	0 1½	12962
September .....	15915	.....	15915	1234	1 7½	do. 340	0 5½	15200
December .....	20634	.....	20634	1372	1 3½	Profit 316	0 3½	12607
March, 1891 .....	18244	.....	18244	1378	1 6½	Loss 138	0 1½	16288
June .....	18717	.....	18717	1487	1 6½	do. 322	0 4	15276
September .....	17994	.....	17994	1434	1 7½	Profit 103	0 1½	20145
December .....	23628	.....	23628	1503	1 8½	do. 350	0 3½	18030
March, 1892 .....	19094	.....	19094	1680	1 9	Loss 360	0 4½	22996
June .....	22580	.....	22580	1633	1 5½	Profit 9	.....	19052
September .....	18706	.....	18706	1596	1 8½	Loss 136	0 1½	21207
December .....	25421	.....	25421	1700	1 4	Profit 350	0 3½	19147
March, 1893 .....	21041	.....	21041	1711	1 7½	Loss 269	0 3	22054
June .....	20851	.....	20851	1763	1 8½	do. 86	0 0½	20415
652032		140991	799023	56151	1 47½	Loss 8423	.....	.....
		Less Profit .....				4134	.....	.....
		Leaves Net Loss .....				4289	0 1½	

NOTE.—To Sept., 1887, and March, 1889, Boot and Shoe and Furnishing figures included respectively.



## LONDON BRANCH BOOT AND SHOE TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
December, 1887.....	£ 7155	£ 323	s. d. 0 10 $\frac{3}{4}$	£ ..	s. d. ..	£ 47	s. d. 0 1 $\frac{1}{2}$	£ 3891
March, 1888.....	5600	374	1 4	..	..	42	0 1 $\frac{3}{4}$	4464
June, ".....	7760	378	0 11 $\frac{1}{2}$	47	0 1 $\frac{3}{4}$	..	..	4225
September, ".....	7987	418	1 0 $\frac{3}{4}$	40	0 1 $\frac{3}{4}$	..	..	4762
December, ".....	8806	428	0 11 $\frac{3}{8}$	44	0 1 $\frac{3}{8}$	..	..	4884
March, 1889.....	7239	444	1 2 $\frac{3}{8}$	..	..	107	0 3 $\frac{1}{2}$	4784
June, ".....	8482	428	1 0	132	0 9 $\frac{3}{8}$	..	..	4486
September, " (14 weeks)	8946	453	1 0 $\frac{3}{8}$	..	..	30	0 0 $\frac{3}{4}$	5451
December, ".....	7986	466	1 2	..	..	50	0 1 $\frac{1}{2}$	6305
March, 1890 (12 weeks)	7670	433	1 1 $\frac{1}{4}$	67	0 2	..	..	5637
June, " (14 weeks)	9154	491	1 0 $\frac{3}{4}$	..	..	8	0 0 $\frac{3}{8}$	6225
September, ".....	9478	491	1 0 $\frac{3}{8}$	63	0 1 $\frac{1}{2}$	..	..	6370
December, ".....	9225	518	1 1 $\frac{1}{2}$	43	0 1 $\frac{1}{8}$	..	..	6051
March, 1891.....	8866	556	1 3	..	..	57	0 1 $\frac{1}{2}$	6509
June, ".....	10440	590	1 1 $\frac{1}{4}$	..	..	45	0 1	7281
September, ".....	10833	584	1 0 $\frac{3}{4}$	65	0 1 $\frac{3}{8}$	..	..	7231
December, ".....	11110	587	1 0 $\frac{3}{8}$	61	0 1 $\frac{1}{4}$	..	..	7337
March, 1892.....	9183	658	1 5 $\frac{1}{4}$	..	..	182	0 4 $\frac{3}{4}$	8043
June, ".....	12742	682	1 0 $\frac{3}{4}$	30	0 0 $\frac{1}{2}$	..	..	7193
September, ".....	11362	758	1 4	..	..	130	0 2 $\frac{3}{4}$	11296
December, ".....	13157	830	1 4	..	..	234	0 5 $\frac{1}{8}$	12194
March, 1893.....	10676	883	1 7 $\frac{1}{2}$	..	..	248	0 5 $\frac{1}{4}$	14094
June, ".....	12507	857	1 4 $\frac{1}{2}$	..	..	193	0 3 $\frac{1}{2}$	13849
	216314	12675	1 2	592	..	1423	..	
Less Profit .....				..	..	592	..	
Leaves Net Loss .....				..	..	831	0 0 $\frac{1}{4}$	

## LONDON BRANCH FURNISHING TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
June, 1889.....	7014	504	1 5½	23	0 0½	..	..	4512
September, „ (14 weeks)....	7145	619	1 8½	..	..	190	..	4525
December, „ .....	7925	682	1 8½	..	..	166	0 6½	4526
							0 5	
March, 1890 (12 weeks)....	7170	634	1 9½	..	..	181	..	5118
June, „ (14 weeks)....	8055	685	1 8½	6	0 0½	..	0 4½	4556
September, „ .....	7444	650	1 8½	..	..	405	..	4228
December, „ .....	9204	713	1 6½	..	..	89	1 1	3957
							0 2½	
March, 1891.....	10064	779	1 6½	..	..	78	..	4618
June, „ .....	9700	779	1 7½	..	..	85	0 1½	4526
September, „ .....	9187	746	1 7½	..	..	170	0 2	4785
December, „ .....	12082	752	1 2½	15	0 0½	..	0 4½	4698
							..	
March, 1892.....	9441	812	1 8½	..	..	42	..	5296
June, „ .....	10944	876	1 7½	65	0 1½	..	0 1	5468
September, „ .....	9719	865	1 9½	..	..	103	0 2½	5532
December „ .....	10912	936	1 8½	..	..	116	0 2½	5761
							..	
March, 1893 .....	9509	929	1 11½	..	..	269	0 6½	6518
June, „ .....	9985	893	1 9½	..	..	92	0 2½	6667
	155450	12854	1 7½	109	..	1936	..	
Less Profit.....						109	..	
Leaves Net Loss .....						1827	0 2½	

## HECKMONDWIKE CURRYING SUPPLIES, &amp;cc., STATED SEPARATELY.

FIGURES INCLUDED IN HECKMONDWIKE ACCOUNTS.

*From its Commencement.*

## QUARTERLY ACCOUNTS.

Quarter Ending.	Supplies.	EXPENSES.			PROFIT.		Loss.		Stocks.
		Sundry.	Depre- ciation.	Interest.	Total.	Rate per £ on Supplies.	Amount	Rate per £ on Supplies.	
	£	£	£	£	£	s. d.	£	s. d.	£
December, 1887.....	538	391	27	17	435	16 2	55	2 0½	213
March, 1888.....	1086	492	27	20	539	9 11	231	4 3	153
June, ".....	522	496	45	30	571	21 10½	44	1 8½	397
Sept., ".....	921	473	46	32	551	11 11½	186	4 0½	401
Dec., ".....	833	604	51	37	692	16 7½	40	0 11½	687
March, 1889.....	1045	449	51	35	545	10 5½	1	.....	284
June, ".....	759	454	51	36	541	14 3	44	1 6½	217
Sept., ".....	864	515	62	35	613	14 2½	186	6 3	181
Dec., ".....	595	569	63	36	608	20 5½	173	.....	306
March, 1890.....	1021	549	60	40	649	12 5½	72	3 4½	365
June, ".....	896	555	70	45	670	14 11½	.....	1 7½	443
Sept., ".....	1097	610	66	41	717	13 0½	108	0 11½	248
Dec., ".....	1089	647	66	40	753	13 9½	40	.....	399
March, 1891.....	1125	697	66	41	804	14 2½	.....	.....	392
June, ".....	822	615	66	42	723	17 7	236	2 2½	325
Sept., ".....	1141	598	66	42	706	12 4	.....	.....	546
Dec., ".....	1313	614	66	42	722	10 11½	166	.....	415
March, 1892.....	936	586	66	42	694	14 9½	.....	73	353
June, ".....	799	565	66	42	673	16 10½	134	2 6½	289
Sept., ".....	969	548	66	42	656	14 5½	4	.....	381
Dec., ".....	1111	651	66	42	759	13 7½	229	.....	286
March, 1893.....	1048	632	66	42	740	14 1½	.....	.....	524
June, ".....	685	587	68	43	698	20 4½	193	5 7½	538
	21158	12847	1347	865	15059	14 2½	1799	.....	....
					Less Loss.....		802	.....	
					Leaves Net Profit...		997	0 11½	

## HECKMONDWIKE BOOT AND SHOE WORKS TRADE.

*From its Commencement.*

## QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Produc- tion.	EXPENSES.				RATE ON PRODUCTION.			NET PROFIT.		NET LOSS.		Stocks.
			Wan- dry.	Depre- ciation.	Interest.		Total.	Per cent.	Per £.	Amount.	Rate.	Amount.	Rate.	
					£	s. d.								
Sept., 1880.....	711	782	225	8	1	239	81 5 8	6 3	....	....	....	12	0 5½	1856
Dec., " .....	2349	2706	832	13	29	874	32 5 11½	6 5½	....	....	....	109	1 2½	2473
March, 1881.....	2508	3052	942	14	33	989	32 8 1	6 5½	....	....	....	196	1 3½	2293
June, " .....	1913	2478	890	14	42	856	34 10 10	6 10½	....	....	....	139	1 1½	2637
Sept., " .....	2807	2467	761	14	48	823	33 7 2½	6 8	....	....	....	244	1 11½	3196
Dec., " .....	3023	3420	1089	15	34	1138	33 5 5½	6 7½	....	....	....	29	0 2	2238
March, 1882.....	3548	3608	1125	16	45	1187	32 17 11½	6 6½	....	....	....	8	0 0½	2934
June, " .....	2986	2909	1102	16	42	1160	39 17 6½	7 11½	0 5½	68	0 5½	....	....	3186
Sept., " .....	2923	3687	1161	17	48	1226	33 5 0½	6 7½	....	....	....	94	0 6	3396
Dec., " .....	5145	5250	1653	17	47	1717	32 14 1	6 6½	....	....	....	124	0 5½	4016
March, 1883.....	3899	4130	1307	17	54	1578	33 7 9½	6 8	0 2½	45	0 2½	....	....	5104
June, " .....	2901	2696	994	17	61	1073	39 15 3	7 11½	0 4½	50	0 4½	....	....	5111
Sept., " .....	3948	3963	1325	17	60	1402	35 18 8½	7 1½	0 6½	107	0 6½	....	....	4685
Dec., " .....	5918	5618	1869	17	47	1873	33 6 8½	6 8	0 8½	92	0 8½	....	....	3950

March, 1884.....	4662	1392	17	51	1430	31	6	4	6	31	139	0	7½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....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## CRUMPSALL BISCUIT WORKS TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Pro- duction	EXPENSES.				RATE ON PRODUCTION.		NET PROFIT.		Stock.
			Sundry.	Depre- ciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate per £.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£
January, 1874 ..	2987	2878	604	60	87	751	26 1 10	5 2½	15	0 1½	1878
April " ..	2814	2790	506	68	92	666	23 18 1	4 9	61	0 5½	1984
July " ..	8450	8426	502	80	124	706	20 11 6	4 1½	192	1 1½	1967
October " ..	3560	3538	585	87	132	804	22 13 11	4 6½	loss 16	0 1	1887
January, 1875 ..	3365	3370	597	88	147	832	24 13 9	4 11	do. 9	0 0½	3029
April " ..	3575	3500	598	79	91	768	21 18 6	4 4	265	1 6½	2187
July " ..	3529	3260	610	80	99	789	24 4 0	4 10	208	1 2½	1656
October " ..	3380	3301	676	81	90	847	25 13 2	5 1	94	0 6½	1433
January, 1876 ..	3180	3331	631	84	91	806	24 3 4	4 10	145	0 11	1538
April " ..	3187	3093	956	90	101	1147	37 1 8	7 5½	18	0 1	2222
July " ..	4659	4918	888	98	111	1097	22 6 1	4 5	221	0 11½	1972
October " ..	4975	5039	789	103	113	1005	19 18 9	3 11	332	1 4	2295
January, 1877 ..	3045	3015	649	107	116	872	23 18 5	5 9	64	0 5	2367
April " ..	3879	4177	704	109	129	942	22 11 0	4 6	44	0 2½	3067
July " ..	4442	4503	629	110	132	871	19 6 10	3 10	17	0 1	2319
October " ..	5521	5158	740	111	118	969	18 16 0	3 9	115	0 5½	2591
January, 1878 ..	4176	4288	599	114	121	834	19 9 0	3 10½	338	1 7½	2961
April " ..	4115	3732	665	114	127	906	24 6 0	4 10½	318	1 6½	3003
July " ..	4217	4144	620	114	120	854	30 12 2	4 1	191	1 0	2608
October " ..	5119	5229	821	114	118	1053	20 2 9	4 0½	614	2 5½	2524
January, 1879 ..	4112	4184	692	139	116	947	22 12 8	4 6½	400	1 10½	2506
March " ..	2953	2701	550	106	91	747	27 13 3	5 6½	181	1 4	2687
June " ..	4515	4512	812	148	124	1084	24 0 2	4 9½	168	0 8½	2614
September, " ..	4716	4677	781	139	114	1034	22 2 2	4 5	308	1 3	2317
December, " ..	4439	4564	709	139	118	966	21 2 10	4 2½	352	1 6	2333
January, 1880 ..	4277	4268	799	139	107	1045	24 9 8	4 10½	loss 12	6 0½	2540
June " ..	4550	4546	676	143	109	928	20 8 3	4 1	288	1 3½	2439
September " ..	5227	5107	750	145	109	1004	19 13 2	3 11½	389	1 6½	1945
December " ..	5099	5148	760	145	104	1009	19 12 0	3 11	318	1 2½	1793
March, 1881 ..	4024	4156	703	144	106	953	22 18 7	4 7	165	0 9½	2038
June " ..	4863	4727	767	144	111	1022	21 12 4	4 3½	45	0 2½	2464
September " ..	5823	6046	835	144	109	1088	18 0 0	3 7½	471	1 6½	2183
December " ..	5412	5345	751	144	103	998	18 13 2	3 5½	206	0 9½	2105
March, 1882 ..	4733	4725	771	144	104	1019	21 11 4	4 3½	265	1 13	1899
June " ..	5064	4975	772	144	101	1017	20 8 0	4 1	164	0 7½	2138
September " ..	5860	5921	777	144	99	1020	17 4 6	3 5½	632	2 1½	2089
December " ..	5975	5957	775	146	97	1018	17 1 10	3 5	437	1 5½	1703
March, 1883 ..	4838	5245	756	147	103	1006	19 3 7	3 10	496	1 10½	2399
June " ..	5407	5100	828	147	105	1080	21 3 6	4 2½	169	0 7½	2299
September " ..	5915	5560	860	147	101	1108	19 17 1	3 11½	630	2 3	2078
December " ..	5737	5787	784	148	99	1031	17 16 3	3 6½	786	2 6½	1896
March, 1884 ..	4740	4920	884	148	105	1137	23 2 2	4 7½	190	0 9½	3201
June " ..	5409	5098	997	158	108	1263	24 15 5	4 11½	345	1 4½	2425
September " ..	5828	5965	1094	177	117	1388	23 5 4	4 7½	609	2 0½	3111
December " ..	5572	5582	868	182	100	1148	20 11 4	4 1½	886	3 2	3129

\* Fourteen Weeks.

† Ten weeks.

CRUMPSALL BISCUIT WORKS TRADE.—*Con.**From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Pro- duction	EXPENSES.				RATE ON PRODUCTION.		NET PROFIT.		Stocks.
			Sundry.	Depre- ciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate per £.	
	£	£	£	£	£	£	s. d.	s. d.	£	s. d.	£
March, 1885 ..	4438	4600	1114	190	110	1414	30 14 9	6 1 $\frac{1}{2}$	94	0 4 $\frac{1}{2}$	2707
June " ..	5514	5213	1168	192	107	1467	28 2 9	5 7 $\frac{1}{2}$	283	1 1	3154
September " ..	5762	6250	1339	202	117	1658	26 10 6	5 3 $\frac{1}{2}$	304	0 11 $\frac{1}{2}$	3604
December " ..	5765	5767	1173	202	120	1495	25 18 5 $\frac{1}{2}$	5 2 $\frac{1}{2}$	810	2 9 $\frac{1}{2}$	3534
March, 1886 ..	5133	5092	1242	202	123	1567	30 15 5	6 1 $\frac{1}{2}$	48	0 2 $\frac{1}{2}$	3747
June " ..	5494	5698	1322	207	119	1648	28 18 5	5 9 $\frac{1}{2}$	115	0 5	3960
September " ..	5920	6060	1695	207	124	2026	33 8 7 $\frac{1}{2}$	6 8 $\frac{1}{2}$	loss 258	0 10 $\frac{1}{2}$	4479
December " ..	6987	6035	1556	281	163	2000	33 2 9 $\frac{1}{2}$	6 7 $\frac{1}{2}$	34	0 1 $\frac{1}{2}$	4207
March, 1887 ..	6311	6637	1409	285	161	1855	27 18 11 $\frac{1}{2}$	5 7	215	0 8 $\frac{1}{2}$	4285
June " ..	6602	6035	1512	313	196	2021	33 9 9	6 8 $\frac{1}{2}$	loss 191	0 6 $\frac{1}{2}$	4396
September " ..	7466	8879	1664	340	188	2192	24 13 8 $\frac{1}{2}$	4 11 $\frac{1}{2}$	123	0 3 $\frac{1}{2}$	5357
December " ..	7935	7549	1786	340	200	2326	30 16 2 $\frac{1}{2}$	6 1 $\frac{1}{2}$	loss 150	0 4 $\frac{1}{2}$	5518
March, 1888 ..	7053	7404	1540	340	215	2095	28 5 10 $\frac{1}{2}$	5 7 $\frac{1}{2}$	do. 223	0 7 $\frac{1}{2}$	5958
June " ..	7427	7265	1709	340	212	2261	31 2 5 $\frac{1}{2}$	6 2 $\frac{1}{2}$	180	0 5 $\frac{1}{2}$	6468
September " ..	8921	9188	1740	342	217	2299	25 0 5 $\frac{1}{2}$	5 0	loss 195	0 5 $\frac{1}{2}$	6903
December " ..	8678	8298	1627	342	218	2187	26 7 1 $\frac{1}{2}$	5 3 $\frac{1}{2}$	16	0 0 $\frac{1}{2}$	7633
March, 1889 ..	7689	8779	1602	342	229	2173	24 15 0 $\frac{1}{2}$	4 11 $\frac{1}{2}$	94	0 2 $\frac{1}{2}$	8892
June " ..	10285	8530	1713	342	226	2281	26 14 9 $\frac{1}{2}$	5 4 $\frac{1}{2}$	469	0 10 $\frac{1}{2}$	7463
*Sept. " ..	12420	14900	2178	343	247	2768	18 11 6 $\frac{1}{2}$	3 8 $\frac{1}{2}$	142	0 2 $\frac{1}{2}$	10655
December " ..	11687	10627	1990	348	227	2565	24 2 8 $\frac{1}{2}$	4 9 $\frac{1}{2}$	569	0 11 $\frac{1}{2}$	9411
+March, 1890 ..	10870	10988	2147	322	225	2694	24 10 4 $\frac{1}{2}$	4 10 $\frac{1}{2}$	48	1	9436
*June " ..	12179	10603	2433	376	234	3043	28 13 11 $\frac{1}{2}$	5 8 $\frac{1}{2}$	721	1 2 $\frac{1}{2}$	9538
September " ..	14647	19258	2481	348	244	3073	15 19 1	3 2 $\frac{1}{2}$	loss 336	0 5 $\frac{1}{2}$	13097
December " ..	14220	18348	2370	348	254	2972	22 5 4 $\frac{1}{2}$	4 5 $\frac{1}{2}$	loss 394	0 6 $\frac{1}{2}$	
March, 1891 ..	14526	14346	2476	348	261	3085	21 10 1	4 3 $\frac{1}{2}$	769	1 0 $\frac{1}{2}$	12575
June " ..	15122	12262	2720	422	296	3438	28 0 9	5 7 $\frac{1}{2}$	672	0 10 $\frac{1}{2}$	12621
September " ..	21160	24594	3421	503	330	4304	17 10 0	3 6	220	0 2 $\frac{1}{2}$	19472
December " ..	17753	19740	3257	505	375	4137	20 19 1 $\frac{1}{2}$	4 7 $\frac{1}{2}$	1620	1 9 $\frac{1}{2}$	22353
March, 1892 ..	15174	14749	3231	506	420	4157	28 3 8 $\frac{1}{2}$	5 7 $\frac{1}{2}$	1512	1 11 $\frac{1}{2}$	19633
June " ..	14880	11629	3065	510	394	3969	34 2 7 $\frac{1}{2}$	6 9 $\frac{1}{2}$	Loss 178	0 2 $\frac{1}{2}$	19042
September " ..	20023	31647	3959	511	452	4922	15 11 0 $\frac{1}{2}$	3 1 $\frac{1}{2}$	693	0 8 $\frac{1}{2}$	31512
December " ..	20620	17555	3401	511	462	4374	24 18 3 $\frac{1}{2}$	4 11 $\frac{1}{2}$	453	0 5 $\frac{1}{2}$	28264
March, 1893 ..	19893	14001	3044	511	436	3991	28 10 1 $\frac{1}{2}$	5 8 $\frac{1}{2}$	800	0 9 $\frac{1}{2}$	22835
June " ..	19517	17759	3337	514	385	4236	23 17 0 $\frac{1}{2}$	4 9 $\frac{1}{2}$	281	0 3 $\frac{1}{2}$	21623
	580324	582811	105539	17477	13256	136272	23 7 7 $\frac{1}{2}$	4 8	23427	..	..
									1962	..	..
									21465	0 8 $\frac{1}{2}$	..

Less Loss.....  
Leaves Net Profit.....

## LEICESTER BOOT AND SHOE WORKS TRADE.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Produc- tion.	EXPENSES.			
			Sundry.	Depre- ciation.	Interest.	Total.
	£	£	£	£	£	£
January, 1874 .....	3422	5190	1281	6	29	1816
April " .....	4506	10794	1512	7	42	1561
July " .....	7787	10120	2673	7	77	2757
October " .....	8065	8823	2671	10	101	2782
January, 1875 .....	9148	9447	8191	12	122	8925
April " .....	11022	10881	9461	29	107	8597
July " .....	18987	14610	4320	84	127	4481
October " .....	15418	15349	4863	90	156	5049
January, 1876 .....	18265	18362	4292	81	153	4476
April " .....	18602	11642	4190	81	151	4872
July " .....	15214	17921	5104	82	166	5802
*October " .....	19818	16419	6209	87	224	6520
January, 1877 .....	14076	14122	5128	96	239	5463
April " .....	15870	14869	4968	102	268	5398
July " .....	19155	19653	6673	104	275	7052
October " .....	18551	18119	6042	105	247	6894
January, 1878 .....	17564	14962	5674	105	288	6012
April " .....	15671	17902	5591	105	267	5968
July " .....	22014	18840	7423	106	259	7768
October " .....	18226	17154	5718	106	284	6058
January, 1879 .....	17970	19048	7170	107	288	7515
†March " .....	12947	15196	5025	82	187	5294
*June " .....	21462	19585	6896	117	254	7267
September " .....	19879	19369	7325	109	216	7650
December " .....	23688	23576	8770	109	288	9187
March, 1880 .....	20675	24392	8445	110	348	8968
June " .....	23571	20933	7004	110	310	7424
September " .....	18670	17610	6602	112	304	7018
December " .....	21739	21494	7815	112	279	8206
March, 1881 .....	16827	20698	6775	112	298	7185
June " .....	26921	23471	8772	112	271	9155
September " .....	20723	21174	7834	112	261	8207
December " .....	28136	23807	9301	112	257	9670
March, 1882 .....	19610	22487	8163	123	311	8597
June " .....	27552	25002	8808	122	276	9206
September " .....	26787	26702	9702	124	268	10094
December " .....	25149	25326	9715	126	258	10099
March, 1883 .....	21493	22090	8278	124	312	8714
June " .....	25255	22929	8499	124	278	8806
September " .....	21777	20418	7880	124	238	8232
December " .....	23461	24777	9211	139	227	9577
March, 1884 .....	21478	25098	8729	141	254	9124
*June " .....	32190	81418	11336	179	823	11838
September " .....	29282	25995	9946	252	371	10569
December " .....	24216	23827	9226	266	319	9811

\* Fourteen weeks. † Ten weeks.



LEICESTER BOOT AND SHOE WORKS TRADE.—*Continued.**From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	
	£ s. d.	s. d.	£	s. d.	£	s. d.	£
January, 1874.....	25 6 8	5 0 $\frac{3}{4}$	..	..	8	0 0 $\frac{1}{2}$	2579
April ".....	20 14 9	4 6 $\frac{1}{4}$	108	0 5 $\frac{3}{4}$	..	..	2504
July ".....	27 4 8	5 5 $\frac{1}{4}$	111	0 3 $\frac{3}{4}$	..	..	4366
October ".....	33 8 6	6 8 $\frac{1}{4}$	373	0 11 $\frac{1}{8}$	..	..	5716
January, 1875.....	35 3 11	7 0 $\frac{1}{2}$	..	..	8	0 0 $\frac{1}{4}$	6466
April ".....	34 13 6	6 11 $\frac{1}{4}$	..	..	175	0 3 $\frac{3}{4}$	6956
July ".....	30 13 5	6 1 $\frac{1}{2}$	1153	1 5 $\frac{1}{8}$	..	..	8809
October ".....	32 17 10	6 7 $\frac{1}{2}$	..	..	174	0 2 $\frac{3}{8}$	10773
January, 1876.....	33 10 0	6 8 $\frac{1}{4}$	108	0 2	..	..	9186
April ".....	37 10 11	7 6 $\frac{1}{4}$	226	0 4	..	..	10025
July ".....	29 11 8	5 11	165	0 2 $\frac{3}{4}$	..	..	11149
*October ".....	39 14 1	7 11 $\frac{1}{4}$	629	0 7 $\frac{1}{2}$	..	..	12677
January, 1877.....	38 13 8	7 8 $\frac{3}{4}$	..	..	134	0 2 $\frac{1}{4}$	14131
April ".....	35 18 0	7 2 $\frac{1}{4}$	..	..	23	0 0 $\frac{1}{2}$	13013
July ".....	35 17 8	7 2 $\frac{1}{4}$	496	0 6	..	..	15634
October ".....	35 5 8	7 0 $\frac{1}{2}$	17	0 0 $\frac{1}{2}$	..	..	16692
January, 1878.....	40 3 8	8 0 $\frac{1}{2}$	..	..	279	0 3 $\frac{1}{2}$	12922
April ".....	33 6 3	6 8	79	0 1 $\frac{1}{4}$	..	..	15104
July ".....	41 6 9	8 3 $\frac{1}{4}$	665	0 7 $\frac{1}{2}$	..	..	14416
October ".....	35 5 5	7 0 $\frac{1}{2}$	807	0 10 $\frac{1}{4}$	..	..	14495
January, 1879.....	89 9 3	7 10 $\frac{3}{4}$	24	0 3 $\frac{3}{4}$	..	..	14515
†March ".....	34 16 9	6 11 $\frac{1}{4}$	351	0 5 $\frac{1}{2}$	..	..	16649
*June ".....	87 2 1	7 5	..	..	84	0 1	11456
September ".....	39 9 4	7 10 $\frac{3}{4}$	954	0 11 $\frac{1}{4}$	..	..	10996
December ".....	38 17 6	7 9 $\frac{1}{4}$	424	0 4 $\frac{1}{4}$	..	..	24733
March, 1880.....	36 10 0	7 3 $\frac{1}{4}$	..	..	156	0 1 $\frac{1}{2}$	28388
June ".....	35 9 1	7 1 $\frac{1}{4}$	760	0 8 $\frac{1}{2}$	..	..	20390
September ".....	39 17 0	7 11 $\frac{1}{2}$	248	0 3 $\frac{3}{4}$	..	..	14662
December ".....	38 3 6	7 7 $\frac{1}{2}$	..	..	1161	1 0 $\frac{1}{8}$	15772
March, 1881.....	34 14 8	6 11 $\frac{1}{4}$	934	0 10 $\frac{3}{4}$	..	..	19945
June ".....	39 0 1	7 9 $\frac{1}{2}$	68	0 0 $\frac{1}{2}$	..	..	15048
September ".....	38 15 2	7 9	410	0 4 $\frac{1}{2}$	..	..	16310
December ".....	40 12 2	8 1 $\frac{1}{2}$	..	..	955	0 9 $\frac{1}{8}$	15594
March, 1882.....	38 4 7	7 8	339	0 3 $\frac{1}{2}$	..	..	20370
June ".....	36 16 5	7 4 $\frac{1}{4}$	598	0 5 $\frac{1}{2}$	..	..	15241
September ".....	37 16 0	7 6 $\frac{1}{4}$	417	0 3 $\frac{3}{4}$	..	..	13437
December ".....	39 17 6	7 11 $\frac{1}{2}$	800	0 2 $\frac{3}{4}$	..	..	14192
March, 1883.....	39 8 11	7 10 $\frac{3}{4}$	..	..	341	0 3	18248
June ".....	38 15 11	7 9	599	0 4 $\frac{1}{4}$	..	..	13038
September ".....	40 6 4 $\frac{1}{2}$	8 0 $\frac{3}{4}$	58	0 0 $\frac{1}{2}$	..	..	10389
December ".....	38 13 0	7 8 $\frac{1}{2}$	74	0 0 $\frac{1}{2}$	..	..	10384
March, 1884.....	36 7 2	7 3 $\frac{1}{4}$	886	0 8 $\frac{1}{2}$	..	..	15796
*June ".....	37 13 6	7 6 $\frac{1}{4}$	1790	1 1 $\frac{1}{4}$	..	..	19049
September ".....	40 13 2	8 1 $\frac{1}{4}$	743	0 6 $\frac{1}{4}$	..	..	16274
December ".....	41 3 5	8 2 $\frac{3}{4}$	..	..	98	0 0 $\frac{1}{8}$	17800

\* Fourteen weeks.

† Ten weeks.

## LEICESTER BOOT AND SHOE WORKS TRADE.—Continued.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Produc- tion.	EXPENSES.			
			Sundry.	Depre- ciation.	Interest.	Total.
March, 1885	£ 26769	£ 27876	£ 905	268	849	10522
June "	30729	30886	11169	269	832	11710
September "	26076	24106	9880	270	825	9925
December "	25890	25438	9502	270	809	10081
March, 1886	26923	32001	11057	276	840	11678
June "	41536	38021	13750	276	813	14332
September "	27976	26674	9718	276	298	10292
December "	26028	26007	10206	276	293	10775
March, 1887	30476	34990	11855	280	840	12475
June "	39272	34884	12881	280	298	13459
September "	27824	26078	10925	280	299	10894
December "	28845	28372	10834	280	303	11417
March, 1888	33925	36819	13082	280	366	13678
June "	45382	40206	15331	280	347	15958
September "	33018	30077	12194	280	335	12609
December "	31163	32858	12649	284	333	13266
March, 1889	37726	44479	15618	288	393	16299
June "	54156	47577	17674	292	387	18353
September " (14 weeks)	44423	41822	16966	325	416	17707
December "	35942	42334	15740	331	437	16508
March, 1890 (12 weeks)	50644	51448	18281	307	470	19052
June " (14 weeks)	65366	61114	22790	360	493	23643
September "	46271	50874	18847	283	510	19590
December "	44213	57327	21543	240	661	22444
March, 1891	72088	63995	24294	248	687	25229
June "	64294	59885	23034	249	645	23928
September "	57530	55491	21329	249	663	22241
December "	41498	51487	20693	249	684	21626
March, 1892	63457	61229	23467	791	976	24284
June "	71332	75562	27787	991	1058	29786
September "	68769	71494	28825	959	1092	30876
December "	52558	84098	30782	1014	1283	38084
June, 1893 (2 Quarters)	159833	132940	54024	2289	2881	59194
	2378736	2393055	882533	18245	20269	930047

## LEICESTER BOOT AND SHOE WORKS TRADE.—Continued.

*From the time of commencing to keep a separate Account.*

## QUARTERLY ACCOUNTS.

Date.	RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	
	£ s. d.	s. d.	£	s. d.	£	s. d.	£
March, 1885.....	37 14 11	7 6½	517	0 4½	..	..	18974
June ".....	33 10 9	7 8½	1241	0 9½	..	..	17401
September ".....	41 8 5½	8 2½	296	0 2½	..	..	16116
December ".....	39 12 7	7 11½	1024	0 9½	..	..	15752
March, 1886.....	36 9 6	7 9½	688	0 5½	..	..	20081
June ".....	37 14 3	7 6½	2725	1 3½	..	..	16020
September ".....	38 11 8½	7 8½	2121	1 6½	..	..	16266
December ".....	41 8 7½	8 3½	525	0 4½	..	..	17786
March, 1887.....	35 13 0½	7 1½	1337	0 10½	..	..	23050
June ".....	38 11 7½	7 8½	2681	1 4½	..	..	19075
September ".....	41 15 3½	8 4½	964	0 6½	..	..	17666
December ".....	40 4 9½	8 0½	1362	0 11½	..	..	19118
March, 1888.....	37 2 11½	7 5½	1920	1 1½	..	..	23460
June ".....	39 13 9½	7 11½	3408	1 6	..	..	21218
September ".....	42 11 8½	8 6½	1147	0 9½	..	..	20345
December ".....	40 7 7½	8 0½	..	..	22	0 0½	22496
March, 1889.....	36 12 10½	7 8½	2300	1 2½	..	..	28976
June ".....	38 11 6	7 8½	4311	1 7	..	..	25376
September " (14 weeks).....	42 17 0½	8 6½	1430	0 7½	..	..	26394
December ".....	38 19 10½	7 9½	306	0 2	..	..	33265
March, 1890 (12 weeks) ....	37 0 10½	7 4½	2053	0 9½	..	..	35110
June " (14 weeks) ....	38 13 8½	7 8½	4700	1 5½	..	..	35053
September ".....	38 10 1½	7 8½	1046	0 5½	..	..	43442
December ".....	39 3 0½	7 9½	944	0 5	..	..	61935
March, 1891.....	39 8 5½	7 10½	1201	0 37½	..	..	52523
June ".....	39 19 1½	7 11½	1812	0 6½	..	..	55257
September ".....	40 1 7½	8 0½	755	0 3½	..	..	57066
December ".....	42 0 0½	8 4½	..	..	1174	0 6½	62980
March 1892.....	39 11 8½	7 10½	..	..	1181	0 4½	56163
June ".....	39 8 4½	7 10½	4119	1 1½	..	..	55554
September ".....	43 3 8½	8 7½	..	..	92	0 0½	64317
December ".....	39 5 7½	7 10½	2065	0 9½	..	..	97381
June, 1893 (2 Quarters) ..	44 10 6½	8 10½	5624	0 8½	..	..	77716
	38 17 3½	7 9½	69265	..	6015	..	..
	Less Loss .....		6015	..			
	Leaves Net Profit ..		63251	0 6½			

# DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT, AND STOCKS.

*From its Commencement.*

## QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Pro- duction.	EXPENSES.			
			Sundry.	Depre- ciation.	Interest.	Total.
	£	£	£	£	£	£
October, 1874 .....	161	818	82	38	4	74
January, 1875 .....	1988	2163	98	37	81	216
April " .....	2510	2540	117	38	54	209
July " .....	2620	2143	128	39	49	216
October " .....	1874	2484	139	39	54	232
January, 1876 .....	2260	2142	128	39	56	223
April " .....	2657	2772	113	39	55	207
July " .....	2560	2523	115	39	57	211
*October " .....	2550	2146	125	39	69	233
January, 1877 .....	1782	2284	135	60	90	285
April " .....	2371	2621	134	71	105	310
July " .....	2801	2653	144	82	121	347
October " .....	2724	3388	196	89	108	393
January, 1878 .....	3202	3251	210	94	114	418
April " .....	3085	3421	310	98	125	533
July " .....	3070	2660	191	98	125	414
October " .....	2947	2868	194	74	89	357
January, 1879 .....	2633	2220	188	75	91	354
*March " .....	2032	2326	159	56	70	285
†June " .....	2582	2726	203	77	96	376
September " .....	2076	1912	169	72	92	333
December " .....	2213	2423	184	72	91	347
March, 1880 .....	2388	2055	199	72	85	356
June " .....	3095	3040	175	72	81	328
September " .....	3216	2987	193	73	79	345
December " .....	3031	3372	214	72	78	364
March, 1881 .....	2656	2757	227	73	93	393
June " .....	3254	3411	173	73	87	333
September " .....	3230	3340	199	73	97	369
December " .....	2731	2757	243	73	99	415
March, 1882 .....	3336	3129	212	73	72	357
June " .....	3480	3815	212	73	98	383
September " .....	3282	2795	179	78	100	352
December " .....	2708	2765	192	73	80	345
March, 1883 .....	3089	3479	197	73	88	353
June " .....	3237	3251	188	73	92	353
September " .....	4426	5099	267	73	85	425
December " .....	3999	4112	258	80	99	437
March, 1884 .....	3855	3799	213	80	96	389
*June " .....	3854	3659	224	87	99	410
September " .....	4008	3625	214	80	82	376
December " .....	3502	3638	198	80	66	344
March, 1885 .....	4369	4311	243	80	66	389
June " .....	4691	4652	255	80	87	410
September " .....	4722	4702	266	80	45	430
December " .....	4129	4329	353	80	75	508

\* Fourteen weeks.

† Ten weeks.

: Twelve weeks.

DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT, AND  
STOCKS.—*Con.*

*From its Commencement.*

QUARTERLY ACCOUNTS.

Date.	RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
	Per cent.	Per £.	Amount.	Rate.	Amount.	Rate.	
October, 1874 ..	£ s. d. 9 2 0	s. d. 1 9 $\frac{3}{4}$	£ ..	s. d. ..	£ 108	s. d. 18 4 $\frac{1}{2}$	£ 804
January, 1875 ..	9 19 8	1 11 $\frac{3}{4}$	127	1 8 $\frac{1}{2}$	..	..	1809
April " ..	8 4 7	1 7 $\frac{3}{4}$	82	0 7 $\frac{3}{4}$	..	..	1007
July " ..	10 1 7	2 0 $\frac{1}{2}$	182	1 4	..	..	1010
October " ..	9 6 0	1 10 $\frac{1}{2}$	92	0 11 $\frac{1}{2}$	..	..	1751
January, 1876 ..	10 8 2	2 1	..	..	120	1 0 $\frac{1}{2}$	1303
April " ..	7 9 4	1 6	11	0 1	..	..	1462
July " ..	8 7 3	1 8	97	0 9	..	..	2262
*October " ..	10 7 1	2 2	..	..	23	0 2	3029
January, 1877 ..	12 9 7	2 6	106	1 2 $\frac{1}{2}$	..	..	3871
April " ..	11 16 7	2 4 $\frac{1}{2}$	..	..	177	1 5 $\frac{1}{2}$	3401
July " ..	13 1 7	2 7 $\frac{1}{2}$	105	0 9	..	..	4353
October " ..	11 12 0	2 4 $\frac{1}{2}$	..	..	147	1 1	3289
January, 1878 ..	12 17 2	2 7	..	..	88	0 6 $\frac{2}{5}$	3721
April " ..	15 11 7	3 1	..	..	142	0 10 $\frac{1}{2}$	4495
July " ..	15 11 3	3 1	..	..	283	2 2 $\frac{1}{2}$	3947
October " ..	12 8 11	2 5 $\frac{3}{4}$	..	..	109	0 11	3374
January, 1879 ..	15 18 11	3 2 $\frac{1}{2}$	..	..	186	0 2 $\frac{1}{2}$	3180
*March " ..	12 4 9	2 5	77	0 7 $\frac{1}{2}$	..	..	2705
†June " ..	13 15 10	2 9	..	..	..	..	3657
September " ..	17 8 3	3 5 $\frac{3}{4}$	..	..	238	2 5 $\frac{1}{4}$	3536
December " ..	14 6 4	2 10 $\frac{1}{4}$	46	0 4 $\frac{1}{2}$	..	..	3769
March, 1880 ..	17 6 5	3 5 $\frac{5}{8}$	7	0 0 $\frac{1}{2}$	..	..	2680
June " ..	10 15 1	2 1 $\frac{1}{2}$	..	..	63	0 5	2786
September " ..	11 14 11	2 4 $\frac{3}{4}$	170	1 1 $\frac{1}{2}$	..	..	2238
December " ..	10 15 10	2 2	24	0 1 $\frac{1}{2}$	..	..	3571
March, 1881 ..	14 5 1	2 10 $\frac{1}{2}$	85	0 7 $\frac{1}{2}$	..	..	3426
June " ..	9 15 3	1 11 $\frac{3}{8}$	117	0 8 $\frac{1}{2}$	..	..	3466
September " ..	11 0 11	2 2 $\frac{1}{2}$	..	..	16	0 1	5369
December " ..	15 1 0	3 0 $\frac{1}{2}$	..	..	54	0 4 $\frac{3}{4}$	3707
March, 1882 ..	11 8 2	2 3 $\frac{3}{8}$	57	0 4 $\frac{3}{8}$	..	..	2834
June " ..	10 0 9	2 0	..	..	113	0 7	5405
September " ..	12 11 10	2 6 $\frac{1}{2}$	40	0 3 $\frac{3}{8}$	..	..	3807
December " ..	12 9 6	2 6	..	..	83	0 7 $\frac{1}{8}$	2628
March, 1883 ..	10 2 10	2 0 $\frac{1}{4}$	..	..	38	0 2 $\frac{1}{2}$	5047
June " ..	10 17 1	2 2	44	0 3 $\frac{1}{2}$	..	..	3838
September " ..	8 6 9 $\frac{3}{4}$	1 8	16	0 0 $\frac{1}{2}$	..	..	3990
December " ..	10 12 6 $\frac{1}{2}$	2 1 $\frac{1}{2}$	40	0 2 $\frac{1}{2}$	..	..	5185
March, 1884 ..	10 4 9	2 0 $\frac{1}{4}$	29	0 1 $\frac{1}{2}$	..	..	4594
*June " ..	11 4 1	2 2 $\frac{1}{2}$	..	..	58	0 3 $\frac{3}{8}$	4323
September " ..	10 7 5	2 0 $\frac{1}{4}$	59	0 3 $\frac{1}{4}$	..	..	2996
December " ..	9 9 1	1 10 $\frac{1}{8}$	62	0 4	..	..	3489
March, 1885 ..	9 0 5 $\frac{1}{2}$	1 9 $\frac{5}{8}$	65	0 8 $\frac{1}{4}$	..	..	3151
June " ..	8 16 3	1 9 $\frac{1}{2}$	294	1 3 $\frac{1}{2}$	..	..	6282
September " ..	9 2 10 $\frac{1}{4}$	1 9 $\frac{1}{4}$	292	1 2 $\frac{1}{2}$	..	..	4458
December " ..	11 14 8 $\frac{1}{2}$	2 4 $\frac{1}{2}$	256	1 2 $\frac{1}{2}$	..	..	4361

\* Fourteen weeks.

† Ten weeks.

‡ Twelve weeks.

DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT, AND  
STOCKS.—*Con.*

*From its Commencement.*

QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Pro- duction.	EXPENSES.			
			Sundry.	Depre- ciation.	Interest.	Total.
	£	£	£	£	£	£
March, 1886 .....	8552	8727	258	80	71	404
June " .....	4230	3979	286	80	81	427
September " .....	4344	3768	329	80	61	470
December " .....	3760	4309	755	80	59	894
March, 1887 .....	3435	3394	341	80	70	491
June " .....	3255	3068	312	80	59	451
September " .....	3963	3754	340	80	57	477
December " .....	4627	4674	523	80	58	661
March, 1888 .....	4641	4513	538	80	70	688
June " .....	4404	4198	448	80	74	602
September " .....	6129	6245	460	80	64	604
December " .....	6582	7175	470	80	61	611
March, 1889 .....	5378	5657	551	82	80	713
June " .....	6145	6089	410	82	76	568
*Sept'mb'r " .....	7234	6410	476	82	75	633
December " .....	5886	5830	384	82	68	534
†March, 1890 .....	6069	5914	432	75	68	575
*June " .....	7522	8764	459	88	64	611
September " .....	7530	7754	445	82	60	587
December " .....	7335	7888	464	82	63	609
March, 1891 .....	7766	7106	416	44	74	534
June " .....	8464	8505	495	43	67	605
September " .....	9065	8403	449	43	70	562
December " .....	8137	8289	509	43	58	610
March, 1892 .....	8062	7535	451	43	78	572
June " .....	7907	7913	441	43	78	562
September " .....	9019	8142	453	43	62	558
December " .....	8393	8338	497	43	50	590
March, 1893 .....	9549	9171	486	43	52	581
June " .....	9142	9289	515	43	56	614
	329036	327700	22094	5230	5811	33135

\* Fourteen weeks.

† Ten weeks.

Twelve weeks.

DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT, AND  
STOCKS.—*Con.*

*From its Commencement.*

QUARTERLY ACCOUNTS.

Date.	RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
	Per cent.	Per £.	Amount.	Rate.	Amount.	Rate.	
	£ s. d.	s. d.	£	s. d.	£	s. d.	£
March, 1886 ..	10 16 9 $\frac{1}{2}$	2 2	288	1 6 $\frac{1}{2}$	..	..	3873
June " ..	10 14 7 $\frac{1}{2}$	2 1 $\frac{1}{2}$	209	0 11 $\frac{1}{2}$	..	..	3198
September " ..	12 9 5 $\frac{1}{2}$	2 5 $\frac{1}{2}$	216	0 11 $\frac{1}{2}$	..	..	2707
December " ..	20 4 5 $\frac{1}{2}$	4 1 $\frac{1}{2}$	28	0 1 $\frac{1}{2}$	..	..	3999
March, 1887 ..	14 9 4	2 10 $\frac{3}{8}$	210	1 2 $\frac{3}{8}$	..	..	4685
June " ..	14 14 2 $\frac{1}{2}$	2 11 $\frac{1}{2}$	92	0 6 $\frac{1}{2}$	..	..	3756
September " ..	12 14 1 $\frac{1}{2}$	2 6 $\frac{1}{2}$	183	0 11	..	..	2795
December " ..	14 2 10	2 9 $\frac{3}{8}$	89	0 2	..	..	3637
March, 1888 ..	15 4 10 $\frac{3}{8}$	3 0 $\frac{1}{2}$	79	0 4	..	..	3893
June " ..	14 7 1 $\frac{1}{2}$	2 10 $\frac{1}{2}$	93	0 5	..	..	3803
September " ..	9 13 5 $\frac{1}{2}$	1 11 $\frac{1}{2}$	223	0 8 $\frac{3}{8}$	..	..	2901
December " ..	8 10 3 $\frac{1}{2}$	1 8 $\frac{3}{8}$	195	0 7	..	..	5448
March, 1889 ..	12 12 0 $\frac{1}{2}$	2 6 $\frac{1}{2}$	..	..	365	1 4 $\frac{1}{2}$	4996
June " ..	9 6 6 $\frac{1}{2}$	1 10 $\frac{1}{2}$	208	0 8	..	..	5073
*Sept'mb'r " ..	9 17 6	1 11 $\frac{1}{2}$	124	0 4	..	..	4371
December " ..	9 3 2 $\frac{1}{2}$	1 9 $\frac{3}{8}$	267	0 10 $\frac{1}{2}$	..	..	4938
† March, 1890 ..	9 14 5 $\frac{1}{2}$	1 11 $\frac{1}{2}$	94	0 3 $\frac{3}{8}$	..	..	4749
* June " ..	9 0 7 $\frac{1}{2}$	1 9 $\frac{1}{2}$	259	0 8 $\frac{1}{2}$	..	..	4566
September " ..	7 11 4 $\frac{1}{2}$	1 6 $\frac{1}{2}$	190	0 6	..	..	2838
December " ..	7 14 8 $\frac{1}{2}$	1 6 $\frac{1}{2}$	190	0 6 $\frac{1}{2}$	..	..	5097
March, 1891 ..	7 10 3 $\frac{1}{2}$	1 6	261	0 8	..	..	4509
June " ..	7 2 3 $\frac{1}{2}$	1 5	259	0 7 $\frac{1}{2}$	..	..	4247
September " ..	6 13 9 $\frac{1}{2}$	1 4	351	0 9 $\frac{1}{2}$	..	..	3465
December " ..	7 7 2 $\frac{1}{2}$	1 5 $\frac{3}{8}$	377	0 11	..	..	5694
March, 1892 ..	7 11 9 $\frac{1}{2}$	1 6 $\frac{1}{2}$	274	0 8 $\frac{1}{2}$	..	..	6230
June " ..	7 2 0 $\frac{1}{2}$	1 5	349	0 10 $\frac{1}{2}$	..	..	4720
September " ..	6 17 0 $\frac{1}{2}$	1 4 $\frac{3}{8}$	810	1 9 $\frac{1}{2}$	..	..	3901
December " ..	6 12 0 $\frac{1}{2}$	1 3 $\frac{3}{8}$	883	1 11 $\frac{1}{2}$	..	..	3251
March, 1893 ..	6 6 8 $\frac{3}{8}$	1 3 $\frac{3}{8}$	485	1 0 $\frac{1}{2}$	..	..	2524
June " ..	6 12 2 $\frac{3}{8}$	1 3 $\frac{3}{8}$	465	1 0 $\frac{1}{2}$	..	..	3001
	10 2 2 $\frac{3}{8}$	2 0 $\frac{1}{2}$	10283	..	2356	..	..
	Less Loss .....		2356	..			
	Leaves Net Profit .....		7927	0 5 $\frac{1}{2}$			

\* Fourteen weeks.

† Ten weeks.

‡ Twelve weeks.

## DUNSTON CORN MILL.

*From its Commencement.*

## QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Produc- tion.	EXPENSES.				RATE ON PRODUCTION.			NET PROFIT.		NET LOSS.		Stocks.
			Sundry.	Depre- ciation.	Interest	Total.	Per cent.		Per £.	Amount	Rate.	Amount	Rate.	
							£	s. d.						
June, 1891 (10 weeks).	34732	36691	2175	707	688	3570	9 14 7½	1 11½	1 11½	801	0 5½	....	....	39000
Sept., "	75942	76460	3251	1448	1086	5785	7 11 3¾	1 6½	1 6½	....	....	1803	0 5	24734
Dec., "	68009	71953	3568	1476	1259	6303	8 15 2¼	1 9	1 9	459	0 1½	....	....	72252
March, 1892	83456	83903	3839	1518	1383	6900	8 3 5½	1 7½	1 7½	....	....	5871	1 4	57084
June, "	84665	84703	4040	1521	1239	6800	8 0 6½	1 7½	1 7½	....	....	12718	3 0	37373
Sept. " .....	89872	89748	3803	1584	1143	6530	7 5 6½	1 5½	1 5½	1865	0 4½	....	....	28902
Dec. " .....	85271	89150	4497	1692	1147	7376	8 3 2¾	1 7½	1 7½	....	....	1114	0 3½	48331
March, 1893	73340	74627	3846	1639	1239	6724	9 0 2¾	1 9½	1 9½	....	....	3507	0 11½	49646
June, "	76162	76018	4152	1639	1203	6894	9 4 0	1 10	1 10	....	....	1492	0 4½	34968
	671449	682553	39231	13164	10387	56762	8 6 4½	1 7½	1 7½	3125	....	26505	....	....
										Less Profit..		3125	....	....
										Leaves Net Loss.		23390	0 8½	....



## BATLEY WOOLLEN MILL TRADE.

*From its Commencement.*

## QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Produc- tion.	EXPENSES.			RATE ON PRODUCTION.			NET PROFIT.		NET LOSS.		Stocks	
			Sundry	Depre- ciation.	Interest	Total.	Per cent.		Per £	Amount	Rate.	Amount		Rate.
							£	s. d.						
March, 1887 .....	..	184	318	2	1	321	174 9 1½	34 10½	....	....	228	....	£ 487	
June, 1887 .....	320	2354	1006	15	21	1042	44 5 3¼	8 10½	....	....	181	11 3¼	3569	
Sept., " .....	1042	2449	1074	54	59	1187	48 9 4½	9 8½	25	0 5½	....	....	6010	
Dec., " .....	1116	3508	1322	60	83	1465	41 15 2½	8 4½	....	....	99	1 9½	8061	
March, 1888 .....	3059	2502	1241	63	99	1403	56 4 6	11 2½	....	....	311	2 0½	8249	
June, " .....	2326	2361	1422	76	113	1611	68 1 8	13 7½	....	....	799	6 10½	8888	
Sept., " .....	910	4403	1723	77	139	1939	44 0 9½	8 9½	....	....	150	3 5	13705	
Dec., " .....	5295	4570	1677	81	162	1920	42 0 3½	8 4	....	....	363	1 4½	11876	
March, 1889 .....	5195	3602	1356	81	130	1567	43 10 0½	8 8½	....	....	186	0 8½	10115	
June, " .....	3523	3984	1383	82	128	1593	48 10 1½	9 8½	....	....	433	2 5½	10550	
Sept., " (14 weeks) ..	3131	2669	1438	84	144	1666	62 8 4½	12 5½	....	....	1152	7 4½	11239	
Dec., " .....	5340	2777	1528	86	132	1746	62 17 5½	12 6½	....	....	2147	8 0½	7308	
March, 1890 (12 weeks) ..	3181	2740	1177	80	94	1351	49 6 1½	9 10½	....	....	342	2 1½	7284	
June, " (14 weeks) ..	3679	3264	1434	97	106	1637	50 3 0½	10 0½	15	0 1½	423	2 3½	6380	
Sept., " .....	3074	3197	1325	90	97	1512	47 5 10½	9 5½	....	....	....	....	6349	
Dec., " .....	3135	3754	1549	96	99	1744	46 9 1½	9 3½	....	....	11	0 0½	7326	
March, 1891 .....	4002	3885	1507	96	102	1705	43 17 8½	8 9½	....	....	13	0 0½	6888	
June, " .....	4342	4455	1515	100	105	1720	38 12 1½	7 8½	277	1 3½	....	....	7168	
Sept., " .....	3973	4054	1497	100	102	1659	41 13 8	8 4	238	1 1½	....	....	7391	
Dec., " .....	4701	4784	1758	100	98	1956	40 17 8½	8 2½	130	0 6½	....	....	7740	
March, 1892 .....	4582	4198	1580	100	99	1779	40 2 1½	8 0½	188	0 11½	....	....	6461	
June, " .....	3898	3826	1453	107	96	1656	43 5 7½	8 7½	108	0 11½	....	....	6613	
Sept., " .....	3706	3501	1322	107	98	1527	43 12 3½	8 8½	51	0 4½	....	....	6745	
Dec., " .....	3969	4115	1444	108	97	1619	40 1 5½	8 0½	76	0 4½	....	....	7357	
March, 1893 .....	4853	4346	1465	112	103	1680	38 13 1½	7 8½	170	0 8½	....	....	6895	
June, " .....	4270	4719	1743	118	104	1965	41 12 9½	8 3½	....	....	21	0 1½	7254	
	86632	89731	36247	2172	2611	41030	45 14 6½	9 1½	1170	Less Profit ..	6870	....	....	
											1170	....	....	
											5700	1 3½	1 3½	
													Leaves Net Loss.	

LEEDS AND BATLEY READY-MADES DEPARTMENT.  
*From its Commencement.*  
 QUARTERLY ACCOUNTS.

Date.	Net Supplies.	EXPENSES.				NET PROFIT.		Stocks.
		Sundry.	Depreciation.	Interest.	Total.	Amount.	Rate.	
	£	£	£	£	£	£	s. d.	£
December, 1888 .....	318	392	13	8	413	Loss 182	11 5 $\frac{1}{2}$	320
March, 1889 .....	820	645	14	11	670	" 266	6 5 $\frac{1}{2}$	415
June, 1889 .....	1331	833	14	10	857	" 55	0 9 $\frac{1}{2}$	528
September, 1889 .....	892	656	15	15	686	" 190	4 3	620
December, 1889 .....	1089	699	15	13	727	" 301	5 6 $\frac{1}{2}$	495
March, 1890 (12 weeks) .....	1394	698	14	15	727	Profit 56	0 9 $\frac{1}{2}$	990
June, 1890 (14 weeks) .....	2169	753	17	17	787	" 46	0 5	818
September, 1890 .....	966	632	16	15	663	" 25	0 6 $\frac{1}{2}$	928
December, 1890 .....	1673	1106	31	24	1161	Loss 258	3 0 $\frac{1}{2}$	1316
March, 1891 .....	3417	1530	33	28	1591	Profit 38	0 2 $\frac{1}{2}$	1199
June, 1891 .....	2381	1427	33	30	1490	" 123	1 0 $\frac{1}{2}$	1923
September, 1891 .....	3344	1551	35	34	1620	" 343	2 0 $\frac{1}{2}$	2123
December, 1891 .....	3787	1425	34	29	1488	" 183	0 11 $\frac{1}{2}$	1498
March, 1892 .....	4311	2134	35	31	2200	" 383	1 9 $\frac{1}{2}$	2033
June, 1892 .....	3816	1938	38	32	2008	" 128	0 8	1993
September, 1892 .....	2695	1770	38	36	1844	Loss 24	0 2 $\frac{1}{2}$	2397
December, 1892 .....	3654	2083	37	32	2152	Profit 153	0 10	2274
March, 1893 .....	5741	2583	34	34	2651	" 419	1 5 $\frac{1}{2}$	1825
June, 1893 .....	4443	2556	35	30	2621	" 54	0 2 $\frac{1}{2}$	1959
	48241	25411	501	444	26356	Profit 675	0 3 $\frac{1}{2}$	....

LONGTON CROCKERY DEPOT-TRADE, &c.  
*Since its Commencement.*  
 QUARTERLY ACCOUNTS.

Date.	SUPPLIES.			TOTAL EXPENSES.		NET PROFIT.		LOSS.		Stocks.
	Selves.	Scottish.	Total.	Amount.	Rate.	Amount.	Rate.	Amount.	Rate.	
£	£	£	£	s. d.	£	s. d.	£	s. d.	£	
September, 1886	1355	.....	1355	50	2 2	.....	.....	6	0 1	282
December " 1887	2613	.....	2613	222	1 8	.....	.....	81	0 2	540
March, " "	2728	43	2771	197	1 5	17	0 1	.....	.....	567
June " "	2818	42	2860	246	1 4	35	0 2	.....	.....	523
September " "	2881	71	2952	199	1 8	63	0 5	.....	.....	509
December " "	3498	148	3646	234	1 3	64	0 4	.....	.....	596
March, 1888	3543	153	3696	232	1 3	95	0 6	.....	.....	736
June " "	3761	154	3915	261	1 4	93	0 3	.....	.....	730
September " "	3219	370	3589	257	1 5	102	0 5	.....	.....	831
December " "	3950	385	4345	250	1 1	53	0 2	.....	.....	1116
March, 1889	4074	295	4369	230	1 0	194	0 10	.....	.....	1122
June " "	3877	363	4240	284	1 4	128	0 6	.....	.....	1472
September " "	4444	211	4655	285	1 2	158	0 7	.....	.....	1152
December " "	5071	314	5385	375	1 4	159	0 7	.....	.....	1329
March, 1890 (12 weeks)	4729	521	5250	340	1 2	47	0 2	.....	.....	2381
June " "	5446	165	5611	467	1 7	108	0 4	.....	.....	2568
September " "	5219	118	5337	426	1 7	229	0 8	.....	.....	2340
December " "	6398	177	6575	411	1 3	137	0 5	.....	.....	3053
March, 1891	6157	26	6183	425	1 4	104	0 4	.....	.....	3014
June " "	5600	.....	5600	483	1 8	14	0 0	.....	.....	2948
September " "	5687	.....	5687	433	1 6	233	0 5	.....	.....	2716
December " "	9794	.....	9794	478	0 11	22	0 0	.....	.....	3481
March, 1892	6774	.....	6774	485	1 5	114	0 3	.....	.....	3411
June " "	7744	.....	7744	523	1 4	166	0 5	.....	.....	3639
September " "	7569	.....	7569	473	1 2	379	1 0	.....	.....	2963
December " "	7540	.....	7540	533	1 4	58	0 2	.....	.....	2808
March, 1893	5809	.....	5809	529	1 9	.....	.....	59	0 2	3254
June " "	4977	.....	4977	558	2 2	.....	.....	.....	.....	3159
137275			140841	9986	1 5	2835	.....	96	.....	.....
			Less Loss	.....	.....	96	.....	.....	.....	.....
			Leaves Net Profit	.....	.....	2739	0 4	.....	.....	.....

# MANCHESTER GROCERY AND PROVISION SALES, EXPENSES, PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1875 (3 quarters) .....	1110155	11716	0 2½	11986	0 2½	71860
" 1876 .....	1476586	14701	0 2½	19042	0 8	56487
" 1877 (53 weeks) .....	1707637	17692	0 2½	27998	0 8½	68205
" 1878 .....	1761017	16866	0 2½	25745	0 8½	58790
" 1879 .....	1683618	17373	0 2½	26502	0 8½	55319
December, 1879 (50 weeks) .....	1590007	16761	0 2½	25826	0 4½	71446
" 1880 .....	1998384	18911	0 2½	30977	0 8½	70091
" 1881 .....	2047210	19888	0 2½	32460	0 8½	87277
" 1882 .....	2298350	23666	0 2½	30644	0 8½	141191
" 1883 .....	2544409	28337	0 2½	27455	0 2½	109414
" 1884 (53 weeks) .....	2457288	28523	0 2½	24898	0 2½	107524
" 1885 .....	2375945	27484	0 2½	41757	0 4½	92790
" 1886 .....	2571435	29777	0 2½	41381	0 8½	113620
" 1887 .....	2827624	32979	0 2½	45516	0 8½	129565
" 1888 .....	3092225	35914	0 2½	49798	0 8½	139849
" 1889 (53 weeks) .....	3503195	39805	0 2½	61452	0 4½	112395
" 1890 .....	3517114	41548	0 2½	65984	0 4½	123432
" 1891 .....	4113569	46620	0 2½	74882	0 4½	192161
" 1892 .....	4401000	55140	0 8	59915	0 8½	226266
	47075713	523695	0 2½	727298	0 8½	....

# MANCHESTER DRAPERY SALES, EXPENSES, PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
Jan., 1874 (1 quarter) ..	10575	348	0 8	201	0 4½	....	....	11568
" 1875 .....	71290	8872	1 1	1244	0 4½	....	....	86824
" 1876 .....	129486	7264	1 1½	720	0 1½	....	....	72408
" 1877 (53 weeks) ..	147083	9391	1 3½	....	....	1420	0 2½	69267
" 1878 .....	124918	8979	1 5½	....	....	4144	0 7½	48511
" 1879 .....	134746	8518	1 3½	685	0 1½	....	....	44439
Dec., 1879 (50 weeks) ..	126824	7817	1 2½	1874	0 3½	....	....	43225
" 1880 .....	139421	8511	1 2½	2314	0 4	....	....	44106
" 1881 .....	152914	8168	1 2½	1932	0 5½	....	....	42203
" 1882 .....	143019	8937	1 1½	8504	0 5½	....	....	40854
" 1883 .....	156997	8976	1 1½	4171	0 6½	....	....	41865
" 1884 (53 weeks) ..	165770	8365	1 0	5283	0 7½	....	....	38026
" 1885 .....	173233	9067	1 0½	5387	0 7½	....	....	44948
" 1886 .....	195130	9728	0 11½	5333	0 0½	....	....	54130
" 1887 .....	210705	10798	1 0½	3624	0 4½	....	....	59695
" 1888 .....	232277	11350	0 11½	4791	0 4½	....	....	62110
" 1889 (53 weeks) ..	256449	13168	1 0½	4539	0 4½	....	....	87849
" 1890 .....	311365	15612	1 0	6991	0 5½	....	....	84739
" 1891 .....	339213	16306	0 11½	7915	0 5½	....	....	82524
" 1892 .....	370495	18867	1 0½	10136	0 6½	....	....	90744
	3571919	193342	1 0½	70394	....	5564	....	....
Less Depreciation allowed, see Disposal of Profit Account, October, 1877 .....		£4757		10321	....			
" Loss .....		5564						
Leaves Net Profit .....		....		60073	0 4			

NOTE.—To December, 1883, the figures include Woollens and Ready-Mades Department.

# MANCHESTER WOOLLENS AND READY-MADES DEPARTMENT.

*From the time of commencing to publish a separate Account in Balance Sheet.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
December, 1884 .....	20868	1221	1 2 $\frac{3}{4}$	409	0 4 $\frac{3}{4}$	....	....	4407
" 1885 .....	21210	1249	1 2 $\frac{1}{2}$	386	0 3 $\frac{3}{4}$	....	....	5242
" 1886 .....	22173	1417	1 3 $\frac{1}{4}$	327	0 3 $\frac{1}{2}$	....	....	6275
" 1887 .....	21820	1427	1 3 $\frac{3}{8}$	....	....	2	....	6112
" 1888 .....	23047	1547	1 4	....	....	25	0 0 $\frac{1}{2}$	8450
" 1889 (53 weeks) ..	26813	1845	1 4 $\frac{1}{2}$	....	....	212	0 1 $\frac{1}{2}$	12277
" 1890 .....	26693	2095	1 6 $\frac{1}{4}$	....	....	1284	0 11 $\frac{1}{2}$	11463
" 1891 .....	31946	2465	1 6 $\frac{1}{2}$	....	....	2294	1 5 $\frac{1}{2}$	19761
" 1892 .....	40649	2949	1 5 $\frac{3}{8}$	....	....	4193	2 0 $\frac{1}{2}$	12958
	234719	16215	1 4 $\frac{1}{2}$	1072	....	8010	....	....
						Less Profit .....	1072	....
						Leaves Net Loss .....	6938	0 7

# MANCHESTER BOOT AND SHOE SALES, EXPENSES, PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	d.	£	d.	£
January, 1874 (1 quarter) .....	5506	204	8 $\frac{3}{4}$	1	..	4715
" 1875 .....	37257	1129	7 $\frac{1}{2}$	748	4 $\frac{1}{2}$	5197
" 1876 .....	53885	1326	5 $\frac{1}{2}$	775	3 $\frac{3}{4}$	7711
" 1877 (53 weeks) .....	57307	1811	7 $\frac{1}{2}$	586	2 $\frac{3}{4}$	6082
" 1878 .....	58304	1975	8 $\frac{1}{2}$	786	3 $\frac{1}{2}$	7985
" 1879 .....	59327	2192	8 $\frac{1}{2}$	767	3	10242
December, 1879 (50 weeks) ..	55270	2135	9 $\frac{1}{2}$	752	3 $\frac{1}{2}$	10964
" 1880 .....	62139	2387	9 $\frac{1}{2}$	755	2 $\frac{1}{2}$	11484
" 1881 .....	71382	2492	8 $\frac{1}{2}$	842	2 $\frac{3}{4}$	11377
" 1882 .....	76101	2583	8 $\frac{1}{2}$	1246	3 $\frac{1}{2}$	12564
" 1883 .....	86056	2882	8	1261	3 $\frac{1}{2}$	12938
" 1884 (53 weeks) .....	96694	3150	7 $\frac{1}{2}$	1586	3 $\frac{1}{2}$	16567
" 1885 .....	106755	3596	8	1385	3 $\frac{1}{2}$	16074
" 1886 .....	121432	3772	7 $\frac{1}{2}$	2767	5 $\frac{1}{2}$	16578
" 1887 .....	126099	4070	7 $\frac{1}{2}$	3083	5 $\frac{1}{2}$	19727
" 1888 .....	139188	4864	8 $\frac{1}{2}$	2940	5	22680
" 1889 (53 weeks) .....	163002	5491	8	3772	5 $\frac{1}{2}$	24067
" 1890 .....	188530	5983	7 $\frac{1}{2}$	4957	6 $\frac{1}{2}$	32095
" 1891 .....	218180	7194	7 $\frac{1}{2}$	4958	5 $\frac{1}{2}$	36875
" 1892 .....	233097	9322	9 $\frac{1}{2}$	3044	3 $\frac{1}{2}$	52169
	2018511	68358	8 $\frac{1}{2}$	37021	4 $\frac{3}{8}$	..

MANCHESTER FURNISHING SALES, EXPENSES, PROFIT,  
AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
Jan., 1877 (27 weeks)	5944	405	1 4 $\frac{3}{4}$	..	..	52	0 2	2571
" 1878.....	15464	984	1 3 $\frac{1}{2}$	65	0 1	..	..	2286
" 1879.....	17374	1185	1 4 $\frac{1}{2}$	140	0 1 $\frac{1}{2}$	..	..	2421
Dec., 1879 (50 weeks)	18861	1108	1 2 $\frac{3}{4}$	60	0 0 $\frac{1}{2}$	..	..	3524
" 1880.....	24243	1317	1 1	404	0 4	..	..	4307
" 1881.....	24844	1293	1 0 $\frac{1}{2}$	171	0 1 $\frac{1}{2}$	..	..	3971
" 1882.....	29021	1515	1 0 $\frac{1}{2}$	219	0 1 $\frac{1}{2}$	..	..	3630
" 1883.....	34804	1878	1 0 $\frac{3}{4}$	423	0 2 $\frac{1}{2}$	..	..	4274
" 1884 (53 weeks)	44311	2253	1 0	673	0 3 $\frac{1}{2}$	..	..	5433
" 1885.....	51238	2415	0 11 $\frac{1}{2}$	893	0 4 $\frac{1}{2}$	..	..	5817
" 1886.....	62340	2657	0 10 $\frac{1}{2}$	1129	0 4 $\frac{1}{2}$	..	..	6041
" 1887.....	72932	3497	0 11 $\frac{1}{2}$	946	0 3	..	..	9497
" 1888.....	85484	4755	1 1 $\frac{1}{2}$	546	0 1 $\frac{1}{2}$	..	..	8548
" 1889 (53 weeks)	96163	4952	1 0 $\frac{1}{2}$	1436	0 3 $\frac{1}{2}$	..	..	9770
" 1890.....	122661	5389	0 10 $\frac{1}{2}$	2351	0 4 $\frac{1}{2}$	..	..	12390
" 1891.....	137106	5933	0 10 $\frac{3}{4}$	2048	0 3 $\frac{1}{2}$	..	..	12507
" 1892.....	142986	7559	1 0 $\frac{3}{4}$	319	0 0 $\frac{1}{2}$	..	..	13455
	985276	49155	0 11 $\frac{1}{2}$	11823	..	52	..	..
	Less Loss.....			52	..			
	Leaves Net Profit .....			11771	0 2 $\frac{1}{2}$			

NEWCASTLE BRANCH GROCERY AND PROVISION SALES,  
EXPENSES, PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1877 (53 weeks).....	529244	7727	0 3 $\frac{1}{2}$	4531	0 2	34591
" 1878.....	541783	8213	0 3 $\frac{1}{2}$	4139	0 1 $\frac{1}{2}$	28996
" 1879.....	457597	7402	0 3 $\frac{1}{2}$	5168	0 1	22789
December, 1879 (50 weeks).....	465108	6823	0 3 $\frac{1}{2}$	7234	0 3 $\frac{1}{2}$	49145
" 1880.....	588664	7868	0 3 $\frac{1}{2}$	4636	0 1 $\frac{1}{2}$	44398
" 1881.....	703337	8921	0 3	9296	0 3 $\frac{1}{2}$	54648
" 1882.....	795007	10098	0 3	3741	0 2 $\frac{1}{2}$	65330
" 1883.....	871597	10785	0 2 $\frac{1}{2}$	10476	0 2 $\frac{1}{2}$	55152
" 1884 (53 weeks).....	930803	11395	0 2 $\frac{1}{2}$	12451	0 3 $\frac{1}{2}$	65158
" 1885.....	936542	12075	0 3	14422	0 3 $\frac{1}{2}$	53546
" 1886.....	949878	12321	0 3	18794	0 4	71265
" 1887.....	966148	14220	0 3 $\frac{1}{2}$	11026	0 4	59632
" 1888.....	1027528	14125	0 3 $\frac{1}{2}$	19143	0 4	65938
" 1889 (53 weeks).....	1100451	14947	0 3 $\frac{1}{2}$	18421	0 4	55671
" 1890.....	1173876	15147	0 3	26496	0 5 $\frac{1}{2}$	42136
" 1891.....	1431849	16944	0 2 $\frac{1}{2}$	31490	0 5 $\frac{1}{2}$	54737
" 1892.....	1564121	18986	0 2 $\frac{1}{2}$	37070	0 5 $\frac{1}{2}$	60431
	1503353	197997	0 3 $\frac{1}{2}$	241524	0 8 $\frac{3}{4}$	..

# NEWCASTLE BRANCH DRAPERY SALES, EXPENSES, PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1877 (53 weeks) .....	39696	1728	0 10 <sup>3</sup> / <sub>4</sub>	796	0 4 <sup>3</sup> / <sub>4</sub>	11525
" 1878.....	49559	2211	0 10 <sup>3</sup> / <sub>4</sub>	999	0 4 <sup>3</sup> / <sub>4</sub>	11635
" 1879.....	44161	2159	0 11 <sup>3</sup> / <sub>4</sub>	612	0 8 <sup>3</sup> / <sub>4</sub>	10463
December, 1879 (50 weeks).....	44674	2153	0 11 <sup>3</sup> / <sub>4</sub>	871	0 4 <sup>3</sup> / <sub>4</sub>	11590
" 1880.....	55979	2494	0 10 <sup>3</sup> / <sub>4</sub>	2206	0 9 <sup>3</sup> / <sub>4</sub>	16171
" 1881.....	69081	2656	0 9 <sup>3</sup> / <sub>4</sub>	2339	0 8 <sup>3</sup> / <sub>4</sub>	16075
" 1882.....	84457	2975	0 8 <sup>3</sup> / <sub>4</sub>	3856	0 10 <sup>3</sup> / <sub>4</sub>	15754
" 1883.....	99354	3337	0 8 <sup>3</sup> / <sub>4</sub>	4499	0 10 <sup>3</sup> / <sub>4</sub>	16594
" 1884 (53 weeks) .....	118345	3983	0 8	4503	0 9 <sup>3</sup> / <sub>4</sub>	18906
" 1885.....	142701	4598	0 7 <sup>3</sup> / <sub>4</sub>	6906	0 11 <sup>3</sup> / <sub>4</sub>	24084
" 1886.....	152433	5342	0 8 <sup>3</sup> / <sub>4</sub>	7562	0 11 <sup>3</sup> / <sub>4</sub>	28645
" 1887.....	144713	5863	0 9	5845	0 9 <sup>3</sup> / <sub>4</sub>	25537
" 1888.....	161974	5973	0 8 <sup>3</sup> / <sub>4</sub>	6373	0 9 <sup>3</sup> / <sub>4</sub>	30177
" 1889 (53 weeks) .....	185443	6515	0 8 <sup>3</sup> / <sub>4</sub>	7600	0 9 <sup>3</sup> / <sub>4</sub>	32799
" 1890.....	232360	6850	0 7 <sup>3</sup> / <sub>4</sub>	10588	0 10 <sup>3</sup> / <sub>4</sub>	33216
" 1891.....	251466	7500	0 7 <sup>3</sup> / <sub>4</sub>	10886	0 10 <sup>3</sup> / <sub>4</sub>	35964
" 1892.....	241003	7796	0 7 <sup>3</sup> / <sub>4</sub>	9731	0 9 <sup>3</sup> / <sub>4</sub>	36570
	2117599	74188	0 8 <sup>3</sup> / <sub>4</sub>	85972	0 9 <sup>3</sup> / <sub>4</sub>	..

# NEWCASTLE BRANCH BOOT AND SHOE SALES, EXPENSES, PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1877 (53 weeks).....	25379	649	0 6 <sup>1</sup> / <sub>4</sub>	406	0 3 <sup>3</sup> / <sub>4</sub>	1505
" 1878.....	28425	760	0 6 <sup>1</sup> / <sub>4</sub>	690	0 5 <sup>3</sup> / <sub>4</sub>	2242
" 1879.....	28375	880	0 7 <sup>3</sup> / <sub>4</sub>	310	0 2 <sup>3</sup> / <sub>4</sub>	8179
December, 1879 (50 weeks).....	27708	935	0 8	357	0 3	4681
" 1880.....	34968	1276	0 8 <sup>3</sup> / <sub>4</sub>	649	0 4 <sup>3</sup> / <sub>4</sub>	5971
" 1881.....	42991	1307	0 7 <sup>3</sup> / <sub>4</sub>	938	0 5 <sup>3</sup> / <sub>4</sub>	4645
" 1882.....	54487	1527	0 6 <sup>3</sup> / <sub>4</sub>	1336	0 5 <sup>3</sup> / <sub>4</sub>	6561
" 1883.....	65501	1955	0 7 <sup>3</sup> / <sub>4</sub>	1890	0 6 <sup>3</sup> / <sub>4</sub>	5817
" 1884 (53 weeks) .....	75054	2408	0 7 <sup>3</sup> / <sub>4</sub>	1917	0 6 <sup>3</sup> / <sub>4</sub>	8266
" 1885.....	89117	2783	0 7 <sup>3</sup> / <sub>4</sub>	2195	0 5 <sup>3</sup> / <sub>4</sub>	11319
" 1886.....	97148	3646	0 9	1619	0 4	13442
" 1887.....	91029	3929	0 10 <sup>1</sup> / <sub>4</sub>	1173	0 3	13974
" 1888.....	101272	3978	0 9 <sup>3</sup> / <sub>4</sub>	1547	0 3 <sup>3</sup> / <sub>4</sub>	14483
" 1889 (53 weeks) .....	90528	3570	0 9 <sup>3</sup> / <sub>4</sub>	1236	0 3 <sup>3</sup> / <sub>4</sub>	12463
" 1890.....	113149	3753	0 7 <sup>3</sup> / <sub>4</sub>	2239	0 4 <sup>3</sup> / <sub>4</sub>	11870
" 1891.....	124707	3871	0 7 <sup>3</sup> / <sub>4</sub>	3127	0 6	12828
" 1892.....	125484	4064	0 7 <sup>3</sup> / <sub>4</sub>	2631	0 5	15567
	1215322	41291	0 8 <sup>1</sup> / <sub>4</sub>	24329	0 4 <sup>3</sup> / <sub>4</sub>	..

NOTE.—To December, 1888, the figures include Furnishing Department.

NEWCASTLE BRANCH FURNISHING SALES, EXPENSES, PROFIT,  
AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING.	EXPENSES.			PROFIT.		LOSS.		Stocks.
	Sales.	Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
Dec. 1889 (58 weeks) .....	49078	2736	1 13	....	....	112	0 0½	6696
" 1890 .....	89409	8551	0 9½	2499	0 6½	....	....	10474
" 1891 .....	99241	4220	0 10½	2178	0 5½	....	....	12002
" 1892 .....	81965	4187	1 0½	1224	0 3½	....	....	11893
	319698	14694	0 11	5901	....	112	....	....
				112	....			
				5789	0 4½			

LONDON BRANCH GROCERY SALES, EXPENSES, PROFIT,  
AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1875 (3 qrs.).....	72385	1542	0 5	567	0 1	7315
" 1876 .....	130752	2365	0 4	1584	0 2	7219
" 1877 (53 weeks) ....	184879	3026	0 3	4182	0 5	12668
" 1878 .....	210415	3293	0 3	2920	0 2	10511
" 1879 .....	216314	3381	0 3	2388	0 2	8439
December, 1879 (50 weeks) ....	232660	3570	0 3	5239	0 5	18594
" 1880 .....	274965	4066	0 3	3559	0 3	20789
" 1881 .....	289748	5310	0 4	2149	0 1	7394
" 1882 .....	296767	5001	0 4	3776	0 3	10636
" 18-3 .....	837753	5441	0 3	4630	0 3	13282
" 1884 (53 weeks) ....	875963	6233	0 4	5062	0 3	18869
" 1885 .....	445876	7485	0 4	9101	0 4	24256
" 1886 .....	527904	8463	0 3	9719	0 4	24739
" 1887 .....	652882	11336	0 4	8839	0 3	47319
" 1888 .....	799279	14028	0 4	9877	0 3	41562
" 1889 (53 weeks) ....	848378	15176	0 4	10667	0 3	44017
" 1890 .....	893470	17020	0 4	12668	0 3	57347
" 1891 .....	1122798	20910	0 4	11438	0 2	75578
" 1892 .....	1206449	23790	0 4	13533	0 2	73393
	9059637	161446	0 4	120798	0 3	.....



# LONDON BRANCH DRAPERY SALES, EXPENSES, PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	SALES.			EXPENSES.		PROFIT.		Loss.		Stocks.
	Drapery and Fur- nishing	Boots and Shoes.	Total.	Amount.	Rate.	Amount.	Rate.	Amount.	Rate.	
	£	£	£	£	s. d.	£	s. d.	£	s. d.	£
Dec., 1880 (2 qrs.)	1857	6500	8157	312	0 9 $\frac{1}{2}$	36	0 1	..	..	3895
" 1881 .....	12558	13448	26006	1268	0 11 $\frac{1}{2}$	149	0 1 $\frac{1}{2}$	..	..	7054
" 1882 .....	16936	15629	32565	1636	1 0	312	0 2 $\frac{1}{2}$	..	..	9524
" 1883 .....	21754	17983	39737	2412	1 2 $\frac{1}{2}$	286	0 1 $\frac{1}{2}$	..	..	10011
" 1884 (58 wks)	29003	19826	48829	2807	1 1 $\frac{1}{2}$	532	0 2 $\frac{1}{2}$	..	..	9977
" 1885 .....	40448	22324	62772	3554	1 1 $\frac{1}{2}$	684	0 2 $\frac{1}{2}$	..	..	11502
" 1886 .....	53749	26090	79839	4529	1 1 $\frac{1}{2}$	776	0 2 $\frac{1}{2}$	..	..	13713
" 1887 .....	63224	19191	82415	5530	1 4	..	..	191	0 0 $\frac{1}{2}$	14967
" 1888 .....	77888	..	77888	6901	1 9 $\frac{1}{2}$	..	..	1513	0 4 $\frac{1}{2}$	19484
" 1889 (53 wks)	61455	..	61455	6050	1 11 $\frac{1}{2}$	..	..	2959	0 11 $\frac{1}{2}$	18189
" 1890 .....	67084	..	67084	5317	1 7	..	..	1902	0 6 $\frac{1}{2}$	12607
" 1891 .....	78583	..	78583	5752	1 5 $\frac{1}{2}$	..	..	7	..	18020
" 1892 .....	85801	..	85801	6609	1 6 $\frac{1}{2}$	..	..	137	0 0 $\frac{3}{4}$	19147
	610140	140991	751131	52677	1 4 $\frac{1}{2}$	2775	..	6709	..	....
Less Profit .....								2775	..	
Leaves Net Loss .....								3934	0 1 $\frac{1}{2}$	

NOTE.—To September, 1887, and March, 1889, Boot and Shoe and Furnishing figures included respectively.

# LONDON BRANCH BOOT AND SHOE SALES, EXPENSES, PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
December, 1887 (13 weeks)	7155	323	0 10 $\frac{1}{2}$	..	..	47	0 1 $\frac{1}{2}$	8891
" 1888 .....	30103	1593	1 0 $\frac{1}{2}$	89	0 0 $\frac{1}{2}$	..	..	4884
" 1889 (53 weeks)	32653	1791	1 1 $\frac{1}{2}$	..	..	55	0 0 $\frac{1}{2}$	6305
" 1890 .....	35527	1933	1 1	165	0 1	..	..	6051
" 1891 .....	41249	2317	1 1 $\frac{1}{2}$	24	0 0 $\frac{1}{2}$	..	..	7337
" 1892 .....	46444	2978	1 3 $\frac{1}{2}$	..	..	566	0 2 $\frac{1}{2}$	12194
	193131	10935	1 1 $\frac{1}{2}$	278	..	668	..	..
Less Loss .....						278	..	
Leaves Net Profit .....						390	0 0 $\frac{1}{2}$	

# LONDON BRANCH FURNISHING SALES, EXPENSES, PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
December, 1889 (40 weeks)	22084	1805	1 7½	..	..	838	0 8½	4526
" 1890 .....	31873	2682	1 8½	..	..	619	0 4½	8957
" 1891 .....	40983	3056	1 5½	..	..	318	0 1½	4698
" 1892 .....	41016	3489	1 8¾	..	..	196	0 1½	5761
	135956	11032	1 7¾	..	..	1466	0 2½	..

# CRUMPSALL BISCUIT WORKS SUPPLIES, EXPENSES, PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Net Supplies.	Production.	EXPENSES.				RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
			Sundry.	Depre- ciation.	Interest	Total.	Per cent	Per £.	Amount	Rate per £.	Amount	Rate per £.	
	£	£	£	£	£	£	s. d.	s. d.	£	s. d.	£	s. d.	£
Jan., 1874*	2987	2878	604	60	87	751	26 1 10	5 2½	15	0 1½	..	..	1678
" 1875..	13189	13124	2190	323	495	3008	22 18 5	4 7	228	0 4½	..	..	2029
" 1876..	13664	13392	2515	324	371	3210	23 19 5	4 9½	712	1 0½	..	..	1538
" 1877†.	15866	16065	3292	398	441	4121	25 13 0	5 1½	630	0 9½	..	..	2867
" 1878..	18018	18126	2672	444	500	3616	19 18 11	3 11½	514	0 6½	..	..	2961
" 1879..	17553	17289	2798	481	481	3760	21 15 0	4 4½	1518	1 9	..	..	2506
Dec., 1879†.	16623	16454	2852	532	447	3831	23 5 8	4 7½	1004	1 2½	..	..	2835
" 1880..	19153	19069	2985	572	429	3986	20 18 1	4 2½	983	1 0½	..	..	1793
" 1881..	20122	20274	3056	576	429	4061	20 0 7	4 0	887	0 10½	..	..	2105
" 1882..	21632	21578	3095	578	401	4074	18 17 7	3 9½	1498	1 4½	..	..	1708
" 1883..	21897	21712	3228	589	408	4225	19 9 2	3 10½	2081	1 11	..	..	1896
" 1884†.	21549	21565	3841	665	430	4936	22 17 9	4 6½	2030	1 10½	..	..	2129
" 1885..	21479	21830	4794	786	454	6084	27 12 9	5 6½	1491	1 4½	..	..	8534
" 1886..	23334	22885	5815	897	529	7241	31 12 9½	6 3½	..	..	61	0 0½	4207
" 1887..	28314	29100	6371	1278	745	8394	28 16 10	5 9½	..	..	3	..	5518
" 1888..	32079	32155	6616	1364	862	8842	27 9 11½	5 5½	..	..	222	0 1½	7633
" 1889†.	42081	42836	7483	1375	929	9787	22 16 11½	4 6½	1274	0 7½	..	..	9411
" 1890..	51916	54197	9431	1394	957	11782	21 14 9½	4 4½	39	0 0½	..	..	12712
" 1891..	68561	70942	11874	1778	1312	14964	21 1 10½	4 2½	3281	0 11½	..	..	22353
" 1892..	70697	75880	13656	2038	1728	17422	23 1 0½	4 7½	2485	0 8½	..	..	28264
	540914	551051	99158	16452	12435	128045	23 4 8¾	4 7¾	20670	..	286	..	..
									Less Loss.....	286	..		
									Leaves Net Profit .....	20884	0 9		

\* One quarter. † Fifty-three weeks. ‡ Fifty weeks.

LEICESTER BOOT AND SHOE WORKS SUPPLIES, EXPENSES,  
PROFIT, AND STOCKS.

*From the time of commencing to keep a separate Account.*

IN YEARS.

YEAR ENDING	Net Sup- plies.	Production.	EXPENSES.				RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
			Sun- dry.	Depre- ciation.	Interest	T. al.	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	
	£	£	£	£	£	£	s. d.	s. d.	£	s. d.	£	s. d.	£
Jan., 1874*..	3422	5190	1231	6	29	1316	25 6 8	5 0 <sup>3</sup> / <sub>4</sub>	..	..	..	0 0 <sup>1</sup> / <sub>2</sub>	2579
" 1875..	29456	38684	10047	36	342	10425	26 18 11	5 4 0 <sup>3</sup> / <sub>4</sub>	584	0 3 <sup>1</sup> / <sub>2</sub>	..	..	6466
" 1876..	53687	53702	16936	124	543	17693	32 15 6	6 6 0 <sup>3</sup> / <sub>4</sub>	912	0 4	..	..	9186
" 1877†..	62205	60104	20681	246	780	21657	36 0 6	7 2 0 <sup>3</sup> / <sub>4</sub>	886	0 3 <sup>1</sup> / <sub>2</sub>	..	..	14131
" 1878..	71140	67603	23357	416	1023	24796	36 18 6	7 4 0 <sup>3</sup> / <sub>4</sub>	211	0 0 <sup>3</sup> / <sub>4</sub>	..	..	12922
" 1879..	73881	72939	25902	424	998	27324	37 9 9	7 6 0 <sup>3</sup> / <sub>4</sub>	1575	0 5 <sup>1</sup> / <sub>2</sub>	..	..	14515
Dec., 1879†..	77476	77746	28016	417	945	29378	37 15 8	7 6 0 <sup>3</sup> / <sub>4</sub>	1645	0 5	..	..	24733
" 1880..	84655	84429	29861	444	1241	31551	37 7 4	7 5 0 <sup>3</sup> / <sub>4</sub>	..	..	309	0 0 <sup>1</sup> / <sub>2</sub>	15772
" 1881..	87607	89150	32382	448	1087	34217	38 8 8	7 8 0 <sup>3</sup> / <sub>4</sub>	452	0 1 <sup>1</sup> / <sub>2</sub>	..	..	15594
" 1882..	99098	99517	36388	495	1113	37993	38 3 5	7 7 0 <sup>3</sup> / <sub>4</sub>	1649	0 3 <sup>1</sup> / <sub>2</sub>	..	..	14192
" 1883..	91986	90214	33868	511	1040	35419	39 5 2	7 10 0 <sup>3</sup> / <sub>4</sub>	190	0 0	..	..	10884
" 1884†..	107166	106333	39237	838	1267	41342	38 17 7	7 9 0 <sup>3</sup> / <sub>4</sub>	3261	0 7 <sup>1</sup> / <sub>2</sub>	..	..	17800
" 1885..	109464	107806	39846	1077	1315	42238	39 3 7	7 10 0 <sup>3</sup> / <sub>4</sub>	3078	0 6 <sup>1</sup> / <sub>2</sub>	..	..	15752
" 1886..	122463	122703	44731	1104	1244	47079	38 7 4 <sup>1</sup> / <sub>2</sub>	7 8 0 <sup>3</sup> / <sub>4</sub>	6059	0 11 <sup>1</sup> / <sub>2</sub>	..	..	17736
" 1887..	126417	124324	45895	1120	1230	48245	38 16 1 <sup>1</sup> / <sub>2</sub>	7 9 0 <sup>3</sup> / <sub>4</sub>	6344	1 0	..	..	19118
" 1888..	143488	139955	53206	1124	1381	55711	39 16 1 <sup>1</sup> / <sub>2</sub>	7 11 0 <sup>3</sup> / <sub>4</sub>	6453	0 10 <sup>1</sup> / <sub>2</sub>	..	..	22496
" 1889†	172267	175712	65998	1236	1633	68867	39 3 10 <sup>1</sup> / <sub>2</sub>	7 10 0 <sup>3</sup> / <sub>4</sub>	8347	0 11 <sup>1</sup> / <sub>2</sub>	..	..	33265
" 1890..	206499	220763	81461	1140	2134	84735	38 7 7 <sup>1</sup> / <sub>2</sub>	7 8 0 <sup>3</sup> / <sub>4</sub>	8743	0 10 <sup>1</sup> / <sub>2</sub>	..	..	61935
" 1891..	235410	230858	89350	995	2679	93024	40 5 10 <sup>1</sup> / <sub>2</sub>	8 0 0 <sup>3</sup> / <sub>4</sub>	2594	0 2 <sup>1</sup> / <sub>2</sub>	..	..	62980
" 1892..	256116	292388	109811	3755	4364	117930	40 6 8 <sup>1</sup> / <sub>2</sub>	8 0 0 <sup>3</sup> / <sub>4</sub>	4961	0 4 <sup>1</sup> / <sub>2</sub>	..	..	97381
	2213903	2260115	828509	15956	26388	870853	38 10 7 <sup>1</sup> / <sub>2</sub>	7 8 0 <sup>3</sup> / <sub>4</sub>	57944	..	317	..	..
									317				
									57627	0 6 <sup>1</sup> / <sub>2</sub>			

Less Loss.....

Leaves Net Profit.....

\* One quarter.

† Fifty-three weeks.

‡ Fifty weeks.

# HECKMONDWIKE BOOTS, SHOES, AND CURRYING WORKS SUPPLIES, EXPENSES, PROFIT, AND STOCKS.

*From its Commencement.*

IN YEARS.

YEAR ENDING	Total Supplies.	Boot & Shoe Production.	TOTAL EXPENSES.				B. & S. RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
			Sundry.	Depreciation.	Interest.	Total.	Per cent.	Per £.	Amount.	Rate.	Amount.	Rate.	
	£	£	£	£	£	£	s. d.	s. d.	£	s. d.	£	s. d.	£
Dec., 18-0*	3000	3438	1057	16	30	1103	32 1 7	6 4 $\frac{1}{2}$	....	....	181	1 0 $\frac{1}{2}$	2473
" 1881..	11151	11417	3592	57	157	3806	38 6 8	6 8	....	....	608	1 0 $\frac{1}{2}$	2238
" 1882..	14602	15454	5041	66	183	5290	34 4 8	6 10 $\frac{1}{2}$	....	....	163	0 2 $\frac{1}{2}$	4016
" 1883..	16661	16377	5435	68	222	5725	34 19 1 $\frac{1}{2}$	6 11 $\frac{1}{2}$	294	0 4 $\frac{1}{2}$	....	....	3950
" 1884†	18215	18138	5924	94	220	6238	34 7 10 $\frac{1}{2}$	6 10 $\frac{1}{2}$	287	0 3 $\frac{1}{2}$	....	....	3506
" 1885..	22666	23811	7832	176	256	8264	34 14 1	6 11 $\frac{1}{2}$	261	0 2 $\frac{1}{2}$	....	....	5314
" 1886..	22231	23418	7867	267	405	8539	36 9 3 $\frac{1}{2}$	7 3 $\frac{1}{2}$	375	0 4	....	....	6869
" 1887..	22519	19641	7110	313	880	7803	37 10 3 $\frac{1}{2}$	7 6	237	0 2 $\frac{1}{2}$	....	....	5882
" 1888..	29307	22998	9371	488	588	10447	35 8 10 $\frac{1}{2}$	7 0 $\frac{1}{2}$	1921	0 9 $\frac{1}{2}$	....	....	10863
" 1889†	29815	22899	9155	602	687	10444	35 10 8 $\frac{1}{2}$	7 1 $\frac{1}{2}$	1922	1 5 $\frac{1}{2}$	....	....	10280
" 1890..	35135	28064	11036	719	797	12552	34 15 9 $\frac{1}{2}$	6 11 $\frac{1}{2}$	1398	0 10 $\frac{1}{2}$	....	....	11325
" 1891..	42919	34853	13903	748	872	15523	36 1 2 $\frac{1}{2}$	7 2 $\frac{1}{2}$	3280	1 8 $\frac{1}{2}$	....	....	14594
" 1892..	46198	39347	15155	784	926	16865	35 15 10	7 1 $\frac{1}{2}$	2017	0 11 $\frac{1}{2}$	....	....	15875
	314479	279855	102478	4398	5723	112599	35 7 4 $\frac{1}{2}$	7 0 $\frac{1}{2}$	11092	....	952	....	....
									952	....	....	....	....
									Leaves Net Profit..	10140	0 8 $\frac{1}{2}$		

\* Two quarters.

† Fifty-three weeks.

## HECKMONDWIKE CURRYING SUPPLIES, &c., STATED SEPARATELY.

FIGURES INCLUDED IN PREVIOUS ACCOUNT.

*From its Commencement.*

IN YEARS.

YEAR ENDING	Supplies.	EXPENSES.						PROFIT.		LOSS.		Stocks.
		Sundry.	Depreci- ation.	Interest.	Total.	Rate.	Amount.	Rate.	Amount.	Rate.		
	£	£	£	£	£	s. d.	£	s. d.	£	s. d.	£	
December, 1887 (one q'rter)	538	391	27	17	435	16 2	55	2 0½	..	..	213	
" 1888 .....	3362	2065	169	119	2353	13 11¼	413	2 5½	..	..	687	
" 1889 (53 weeks).	3263	1937	227	143	2307	14 1½	..	..	201	1 2½	306	
" 1890 .....	4103	2361	262	166	2789	13 7½	390	1 10½	..	..	399	
" 1891 .....	4404	2524	264	167	2955	13 5	340	1 6½	..	..	415	
" 1892 .....	3755	2350	264	168	2782	14 9¾	..	..	36	0 2½	286	
	19425	11628	1213	780	13621	14 0¼	1198	..	237	..	..	
Less Loss .....							237	..				
Leaves Net Profit .....							961	0 11¾				

DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT,  
AND STOCKS.

*From its Commencement.*

IN YEARS.

YEAR ENDING	Net Sup- plies.	Production.	EXPENSES.				RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
			Sun- dry.	Depre- ciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£	s. d.	£
Jan., 1875* ....	2099	2976	190	75	85	290	9 14 10	1 11 $\frac{1}{2}$	19	0 11 $\frac{1}{2}$	..	..	1809
" 1876 ....	9264	9309	512	155	213	880	9 9 0	1 10 $\frac{1}{2}$	236	0 6 $\frac{1}{2}$	..	..	1303
" 1877† ....	9549	9725	488	177	271	936	9 12 6	1 11	191	0 4 $\frac{1}{2}$	..	..	3871
" 1878 ....	11098	11913	684	336	448	1468	12 6 5	2 5 $\frac{1}{2}$	..	..	907	0 6 $\frac{1}{2}$	3721
" 1879 ....	11735	11169	883	345	430	1658	14 16 10	2 11 $\frac{1}{2}$	..	..	670	1 2 $\frac{1}{2}$	3190
Dec., 1879‡ ....	8903	9387	715	277	349	1341	14 5 8	2 10 $\frac{1}{2}$	..	..	115	0 2 $\frac{1}{2}$	3769
" 1880 ....	11730	11404	781	289	323	1398	12 4 3	2 5 $\frac{1}{2}$	138	0 2 $\frac{1}{2}$	..	..	3571
" 1881 ....	11871	12265	842	292	376	1510	12 6 2	2 5 $\frac{1}{2}$	132	0 2 $\frac{1}{2}$	..	..	3707
" 1882 ....	12801	12504	795	292	350	1437	11 9 10	2 3 $\frac{1}{2}$	..	..	99	0 1 $\frac{1}{2}$	2628
" 1883 ....	14751	15941	910	299	359	1568	9 16 8	1 11 $\frac{1}{2}$	62	0 0 $\frac{1}{2}$	..	..	5185
" 1884† ....	15219	14731	849	327	343	1519	10 6 4	2 0 $\frac{1}{2}$	97	0 1 $\frac{1}{2}$	..	..	3489
" 1885 ....	17911	17994	1117	320	390	1737	9 13 0	1 11 $\frac{1}{2}$	907	1 0	..	..	4361
" 1886 ....	15886	15783	1623	320	252	2195	13 18 1 $\frac{1}{2}$	2 9 $\frac{1}{2}$	741	0 11 $\frac{1}{2}$	..	..	3999
" 1887 ....	15280	14888	1516	320	244	2080	13 19 5	2 9 $\frac{1}{2}$	524	0 8 $\frac{1}{2}$	..	..	3637
" 1888 ....	21756	22126	1916	320	269	2505	11 6 5 $\frac{1}{2}$	2 3 $\frac{1}{2}$	590	0 6 $\frac{1}{2}$	..	..	5448
" 1889† ....	24643	23986	1821	328	299	2448	10 4 1 $\frac{1}{2}$	2 0 $\frac{1}{2}$	234	0 2 $\frac{1}{2}$	..	..	4938
" 1890 ....	28456	28318	1800	327	255	2382	8 8 2 $\frac{1}{2}$	1 8 $\frac{1}{2}$	733	0 6 $\frac{1}{2}$	..	..	5097
" 1891 ....	33432	32303	1869	173	269	2311	7 3 0 $\frac{1}{2}$	1 5 $\frac{1}{2}$	1248	0 8 $\frac{1}{2}$	..	..	5694
" 1892 ....	33981	32528	1842	172	268	2282	7 0 3 $\frac{1}{2}$	1 4 $\frac{1}{2}$	2316	1 4 $\frac{1}{2}$	..	..	3251
	310365	309240	21093	5144	5703	31940	10 16 6 $\frac{3}{4}$	2 0 $\frac{3}{4}$	8168	..	1191	..	..
Less Loss .....									1191	..			
Leaves Net Profit.									6977	0 5 $\frac{1}{2}$			

\* Two quarters.

† Fifty-three weeks.

‡ Fifty weeks.

# DUNSTON CORN MILL SUPPLIES, EXPENSES, PROFITS, AND STOCKS.

*From its Commencement.*

IN YEARS.

YEAR ENDING	Net Sup- plies.	Production.	EXPENSES.				RATE ON PRODUCTION.		NET LOSS.		Stocks.
			Sun- dry.	Depre- ciation.	In- terest	Total.	Per cent	Per £.	Amount	Rate per £.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£
Dec., 1891*..	178683	185104	8994	8631	3033	15658	8 9 2½	1 8½	543	0 0½	72252
„ 1892..	343264	346804	16239	6255	4912	27406	7 18 0½	1 6½	17838	1 0½	46831
	521947	531908	25233	9886	7945	43064	8 1 11	1 7½	18331	0 8½	..

\* Thirty-six weeks.

# LONGTON CROCKERY DEPÔT TRADE.

*From its Commencement.*

IN YEARS.

DATE.	SUPPLIES.			TOTAL EXPENSES.		NET PROFIT.		NET LOSS		Stocks.
	Selves.	Scot'ish	Total.	Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	£	£	s. d.	£	s. d.	£	s. d.	£
Dec., 1886*..	3968	..	3968	372	1 10½	..	..	37	0 2½	540
„ 1887..	11925	304	12229	876	1 5½	179	0 3½	..	..	596
„ 1888..	14473	1072	15545	1000	1 3½	353	0 5½	..	..	1116
„ 1889†..	17466	1183	18649	1174	1 3	533	0 6½	..	..	1929
„ 1890..	21792	981	22773	1644	1 5½	543	0 5½	..	..	3053
„ 1891..	27238	26	27264	1819	1 4	488	0 4½	..	..	2884
„ 1892..	29627	..	29627	2014	1 4½	681	0 5½	..	..	2868
	126489	3566	130055	8899	1 4½	2777	..	37	..	..
				Less Loss .....		37	..			
				Leaves Net Profit .....		2740	0 5			

\* Two quarters.

† Fifty-three weeks.

## BATLEY WOOLLEN MILL TRADE.

*From its Commencement.*

IN YEARS.

DATE.	Net Supplies.	Production.	EXPENSES.			RATE ON PRODUCTION.						NET PROFIT.		NET LOSS.		Stocks.	
			Sundry.	Depre- ciation.	Inter st.	Total.	Per cent.	Per £.	s.	d.	Amount.	Rate.	Amount.	Rate.			
Dec., 1887 .....	£ 2478	£ 8495	£ 3720	£ 131	£ 164	£ 4015	47	5	34	9	5	£ ..	s. d. ..	£ 483	3	10 3/4	£ 8061
" 1888 .....	11590	13836	6063	297	513	6873	49	13	5	9	11	..	..	1629	2	9 3/4	11876
" 1889* .....	17189	12332	5705	333	534	6572	53	5	10	10	7	..	..	3918	4	6 3/4	7308
" 1890 .....	13069	12955	5485	363	396	6244	48	3	11	9	7	..	..	766	1	2	7326
" 1891 .....	17018	17178	6267	396	407	7070	41	3	1	8	2	622	0 83/100	..	..	..	7740
" 1892 .....	16155	15870	5799	422	390	6611	41	13	1	8	3	325	0 43/100	..	..	..	7557
	77499	80666	33039	1942	2404	37385	46	6	10 1/2	9	3 1/2	947	..	6796	..	..	
Less Profit .....														947	..	..	
Leaves Net Loss .....														5849	1	6	

\* Fifty-three weeks.

## LEEDS AND BATLEY READY-MADES.

*From its Commencement.*

IN YEARS.

DATE.	Net Supplies.	EXPENSES.				NET PROFIT.		NET LOSS.		Stocks.
		Sundry.	Depreciation.	Inter'st.	Total.	Amount	Rate.	Amount	Rate.	
Dec., 1888*	£ 318	£ 392	£ 13	£ 8	£ 413	£ ..	s. d. ..	£ 182	s. d. 11 5 <sup>1</sup> / <sub>4</sub>	£ 320
" 1889†..	4132	2833	58	49	2940	..	..	812	3 11 <sup>3</sup> / <sub>8</sub>	495
" 1890..	6202	3189	78	71	3338	..	..	131	0 5	1316
" 1891..	12929	5933	135	121	6189	687	1 0 <sup>3</sup> / <sub>4</sub>	..	..	1498
" 1892..	14476	7925	148	131	8204	640	0 10 <sup>1</sup> / <sub>2</sub>	..	..	2274
	38057	20272	432	380	21084	1327	..	1125	..	..
Less Loss .....						1125	..	..	..	
Leaves Net Profit .....						202	0 1 <sup>1</sup> / <sub>4</sub>	..	..	

\* One quarter. † Fifty-three weeks.

## DISTRIBUTIVE EXPENSES AND RATE PER CENT ON

SALES =  Expenses =	TOTALS.		MANCHESTER	
	£8,580,509.		GROCERY.	
	Amount.	Rate $\frac{\text{p}}{\text{£100.}}$	Amount.	Rate $\frac{\text{p}}{\text{£100.}}$
	£	d.	£	d.
Wages.....	68662-07	192-05	21197-67	115-60
Auditors' Fees.....	285-01	0-80	146-89	0-80
" Deputation Fees.....	11-74	0-03	6-05	0-03
" Fares.....	115-00	0-32	59-07	0-32
" Deputation Fares.....	19-84	0-06	10-20	0-06
Fees—General and Branch Committees....	857-92	2-43	339-32	1-85
" Sub-Committees.....	461-94	1-29	107-63	0-59
" Propaganda Committee.....	13-25	0-04	6-82	0-04
" Finance Committee.....	78-26	0-22	40-21	0-22
" Stocktakers.....	50-29	0-14	5-62	0-03
" Scrutineers.....	9-01	0-03	4-65	0-03
" Secretaries.....	90-00	0-25	25-00	0-14
" Deputations.....	753-24	2-11	352-41	1-92
Mileages—General and Branch Committees	206-86	0-58	67-30	0-37
" Sub-Committees.....	134-90	0-38	16-03	0-09
" Propaganda Committee.....	4-03	0-01	2-08	0-01
" Finance Committee.....	33-27	0-09	17-10	0-09
" Stocktakers.....	12-01	0-03	0-80	0-01
" Deputations.....	69-73	0-20	18-29	0-10
Fares and Contracts—General and Branch Committees.....	567-18	1-59	243-67	1-33
" Sub-Committees.....	245-87	0-69	46-35	0-25
" Finance Committee.....	8-63	0-02	4-31	0-02
" Stocktakers.....	15-42	0-04	0-99	0-01
" Scrutineers.....	7-24	0-02	3-73	0-02
" Deputations.....	923-55	2-58	416-15	2-27
Price Lists: Printing.....	1465-46	4-10	660-13	3-60
" Postage.....	322-72	0-90	153-25	0-84
Balance Sheets: Printing.....	342-99	0-96	170-60	0-93
Printing and Stationery.....	5215-93	14-59	2059-83	11-23
Periodicals.....	105-90	0-30	48-40	0-26
Travelling.....	6207-44	17-36	1196-46	6-52
Telegrams.....	447-17	1-25	308-80	1-68
Stamps.....	3789-10	10-60	1825-72	9-96
Petty Cash.....	875-72	1-05	191-23	1-04
Advertisements.....	493-97	1-38	261-27	1-43
Rents, Rates, and Taxes.....	3755-41	10-50	1412-64	7-70
Coals, Gas, and Water.....	2968-77	8-30	1096-95	5-98
Oil, Waste, and Tallow.....	169-77	0-48	90-73	0-49
Expenses: Quarterly and Special Meetings	565-88	1-58	332-45	2-09
Legal.....	144-44	0-40	132-35	0-72
Repairs, Renewals, &c.....	4339-82	12-14	1959-38	10-68
Telephones.....	246-25	0-69	112-96	0-62
Conference and Exhibition Expenses.....	43-94	0-12	19-46	0-10
Propaganda Expenses.....	15-39	0-04	1-83	0-01
Opening Expenses—Birmingham Saleroom	25-45	0-07	25-45	0-14
Employés' Picnic.....	97-46	0-27	20-82	0-11
" Annual.....	970-68	2-72	498-20	2-72
Dining-rooms.....	3962-04	11-08	1887-50	10-29
Insurance—Fire and Guarantee.....	2149-84	6-01	212-55	1-16
Depreciation: Land.....	1776-93	4-97	535-89	2-92
" Buildings.....	8271-72	23-14	1843-53	10-05
" Fixtures.....	4216-49	11-79	1117-97	6-10
Interest.....	39604-64	110-78	13775-38	75-12
	165737-58	463-57	55139-60	300-69



## SALES FOR THE YEAR ENDING DECEMBER 24TH, 1892.

## M A N C H E S T E R .

DRAPERY.		WOOLLENS AND READY-MADES.		BOOT AND SHOE.		FURNISHING.	
£370,495.		£40,650.		£233,097.		£142,986.	
Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.
£	d.	£	d.	£	d.	£	d.
8330.90	539.66	1076.65	625.64	3540.00	364.48	3044.55	511.02
12.81	0.80	1.36	0.80	7.83	0.81	4.41	0.74
0.50	0.03	0.05	0.03	0.32	0.03	0.18	0.03
4.99	0.32	0.54	0.32	3.13	0.32	1.76	0.30
0.86	0.06	0.08	0.03	0.53	0.05	0.30	0.05
28.69	1.86	3.14	1.85	18.10	1.86	10.18	1.71
51.39	3.33	5.77	3.41	32.37	3.33	17.87	3.00
0.57	0.04	0.06	0.04	0.35	0.04	0.19	0.03
3.39	0.22	0.36	0.22	2.14	0.22	1.20	0.20
10.50	0.68	1.50	0.89	1.85	0.19	1.50	0.25
0.88	0.02	0.04	0.02	0.25	0.03	0.14	0.02
7.42	0.48	0.45	0.27	4.18	0.43	2.95	0.50
55.77	3.61	5.27	3.11	30.67	3.16	19.53	3.28
5.65	0.37	0.63	0.37	3.57	0.37	2.05	0.34
17.51	1.13	1.89	1.11	10.99	1.13	6.18	1.04
0.17	0.01	0.01	0.01	0.10	0.01	0.05	0.01
1.44	0.09	0.16	0.09	0.91	0.09	0.51	0.03
4.01	0.26	0.22	0.13	0.65	0.07	0.30	0.05
6.07	0.39	0.69	0.41	4.07	0.42	2.43	0.41
21.77	1.41	2.36	1.39	13.86	1.43	7.70	1.29
14.19	0.92	1.94	1.15	11.20	1.15	5.88	0.99
0.37	0.02	0.05	0.03	0.26	0.03	0.16	0.03
0.72	0.05	0.29	0.17	0.94	0.10	0.33	0.06
0.31	0.02	0.03	0.02	0.21	0.02	0.11	0.02
52.04	3.37	4.49	2.65	26.66	2.74	15.62	2.62
16.23	1.05	5.50	3.25	48.54	5.00	95.51	16.03
2.29	0.15	..	..	7.32	0.75	19.38	3.25
14.35	0.93	1.58	0.93	9.14	0.91	5.12	0.86
491.69	31.85	54.00	31.88	309.47	31.86	174.75	29.33
6.37	0.41	0.41	0.24	1.43	0.15	1.46	0.25
1054.55	68.31	449.67	265.49	165.63	17.05	135.32	22.71
6.22	0.40	6.97	4.12	2.56	0.26	5.15	0.86
151.77	9.83	16.92	9.99	96.49	9.93	54.65	9.17
20.75	1.34	14.55	8.59	14.88	1.53	12.87	2.16
19.03	1.23	5.09	3.01	12.15	1.25	6.80	1.14
191.04	12.38	19.06	11.25	122.04	12.57	177.10	29.73
154.01	9.98	35.99	21.25	123.88	12.75	128.29	21.53
7.69	0.50	2.84	0.50	4.85	0.50	2.71	0.45
32.15	2.08	3.74	2.21	21.61	2.22	11.91	2.00
0.64	0.04	0.07	0.04	0.85	0.04	0.21	0.04
460.57	29.84	29.40	17.36	250.15	25.76	267.80	44.95
10.12	0.66	1.58	0.93	2.35	0.24	9.33	1.57
0.74	0.05	0.08	0.05	0.37	0.04	0.25	0.04
0.16	0.01	0.01	0.01	0.08	0.01	0.05	0.01
16.72	1.08	1.50	0.89	7.55	0.78	6.52	1.09
42.47	2.75	4.62	2.73	26.37	2.72	14.92	2.50
455.60	29.51	49.19	29.04	278.30	28.65	160.64	26.96
279.56	18.11	43.31	25.57	164.00	16.89	78.63	13.20
277.72	17.99	37.92	22.39	215.38	22.18	280.17	47.02
1027.92	66.59	140.28	82.82	664.22	68.39	891.15	149.58
791.42	51.27	62.47	36.88	294.67	30.34	215.48	36.17
4702.45	304.62	856.37	505.61	2762.89	284.47	1657.30	278.17
1896.15	1222.11	2949.15	1741.19	9321.81	959.78	7559.55	1268.85

## DISTRIBUTIVE EXPENSES AND RATE PER CENT ON

## NEWCASTLE.

SALES= Expenses=	NEWCASTLE.					
	GROCERY.		DRAPERY.		BOOTS & SHOES.	
	£1,564,121.		£241,002.		£125,484.	
	Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.
	£	d.	£	d.	£	d.
Wages .....	8612.66	132.15	3481.30	346.68	1572.48	300.75
Auditors' Fees .....	51.92	0.80	7.97	0.79	4.19	0.80
„ Deputation Fees .....	2.15	0.03	0.83	0.03	0.18	0.03
„ Fares .....	21.01	0.32	3.22	0.32	1.69	0.32
„ Deputation Fares .....	3.65	0.06	0.55	0.05	0.29	0.06
Fees—General and Branch Committees	202.13	3.10	47.34	4.71	19.36	3.70
„ Sub-Committees .....	62.18	0.95	23.01	2.29	14.40	2.75
„ Propaganda Committee .....	2.45	0.04	0.37	0.04	0.19	0.04
„ Finance Committee .....	14.31	0.22	2.18	0.22	1.15	0.22
„ Stocktakers .....	3.35	0.05	3.75	0.37	1.50	0.29
„ Scrutineers .....	1.64	0.03	0.25	0.03	0.13	0.02
„ Secretaries .....	13.18	0.20	7.62	0.76	0.66	0.13
„ Deputations .....	58.25	0.89	8.08	0.80	3.73	0.71
Mileages—Gen. & Branch Committees..	42.41	0.65	9.15	0.91	3.45	0.66
„ Sub-Committees .....	10.45	0.16	2.98	0.30	1.62	0.31
„ Propaganda Committee .....	0.74	0.01	0.12	0.01	0.06	0.01
„ Finance Committee .....	6.08	0.09	0.93	0.09	0.49	0.09
„ Stocktakers .....	0.46	0.01	1.05	0.10	0.02	0.01
„ Deputations .....	4.02	0.06	0.98	0.10	0.20	0.04
Fares and Contracts—General and						
„ Branch Committees .....	104.96	1.61	16.85	1.68	8.75	1.67
„ Sub-Committees .....	25.12	0.39	7.93	0.79	4.44	0.85
„ Finance Committee .....	1.57	0.02	0.23	0.02	0.14	0.03
„ Stocktakers .....	1.62	0.02	0.22	0.02	0.32	0.06
„ Scrutineers .....	1.31	0.02	0.20	0.02	0.10	0.02
„ Deputations .....	38.05	0.58	5.54	0.55	2.92	0.56
Price Lists: Printing .....	133.95	2.06	..	..	3.43	0.66
„ Postage .....	31.9	0.48	..	..	0.75	0.14
Balance Sheets: Printing .....	40.96	0.63	6.29	0.63	3.28	0.63
Printing and Stationery .....	354.60	5.44	125.52	12.50	96.47	18.45
Periodicals .....	11.26	0.17	1.11	0.11	1.05	0.20
Travelling .....	464.32	7.13	410.58	40.89	225.15	43.06
Telegrams .....	80.39	1.23	4.00	0.40	4.00	0.77
Stamps .....	315.13	4.84	158.39	15.77	51.25	9.80
Petty Cash .....	49.27	0.76	5.48	0.55	3.33	0.64
Advertisements .....	90.05	1.38	13.81	1.38	7.25	1.39
Rents, Rates, and Taxes .....	254.92	3.91	173.11	17.24	141.25	27.02
Coals, Gas, and Water .....	457.78	7.02	113.44	11.80	41.45	7.92
Oil, Waste, and Tallow .....	22.10	0.34	3.50	0.35	1.79	0.34
Expenses: Quarterly & Special Meetings	40.39	0.62	6.12	0.61	3.27	0.63
Legal .....	2.65	0.04	0.43	0.04	0.20	0.04
Repairs, Renewals, &c. ....	360.15	5.53	102.95	10.25	38.87	7.43
Telephones .....	52.39	0.80	5.15	0.52	2.89	0.55
Conference and Exhibition Expenses..	0.91	0.02	0.14	0.01	0.08	0.02
Propaganda Expenses .....	..	..	..	..	..	..
Open'g Expenses—Birm'gh'm Saleroom	..	..	..	..	..	..
Employés' Picnic .....	7.48	0.11	7.44	0.74	1.88	0.36
„ Annual .....	177.26	2.72	27.40	2.73	14.13	2.70
Dining-rooms .....	478.77	7.35	128.96	12.78	67.63	12.93
Insurance—Fire and Guarantee .....	134.29	2.06	143.87	14.33	82.07	15.70
Depreciation: Land .....	113.33	1.74	61.27	6.10	48.63	9.30
„ Buildings .....	723.87	11.10	422.93	42.12	338.88	64.81
„ Fixtures .....	314.64	4.83	171.60	17.09	134.86	25.79
Interest .....	4989.35	76.56	2071.28	206.27	1107.48	211.82
	18986.97	291.33	7796.32	776.39	4063.78	777.23

## SALES FOR THE YEAR ENDING DECEMBER 24TH, 1892.

NEWCASTLE.		L O N D O N .							
FURNISHING.		GROCERY.		DRAPERY.		BOOTS & SHOES.		FURNISHING.	
£81,966.		£1,206,448.		£85,801.		£46,444.		£41,016.	
Amount.	Rate ₣ £100.	Amount.	Rate ₣ £100.	Amount.	Rate ₣ £100.	Amount.	Rate ₣ £100.	Amount.	Rate per £100.
£	d.	£	d.	£	d.	£	d.	£	d.
2070.70	606.31	9956.88	198.06	2819.10	788.55	1275.03	658.87	1634.65	985.75
2.71	0.79	40.14	0.80	2.85	0.80	1.55	0.80	1.38	0.81
0.11	0.03	1.65	0.03	0.11	0.03	0.06	0.03	0.05	0.03
1.09	0.32	16.19	0.32	1.14	0.32	0.62	0.32	0.55	0.32
0.19	0.06	2.79	0.06	0.20	0.06	0.11	0.06	0.09	0.05
12.68	3.71	142.56	2.84	21.73	6.08	11.54	5.96	11.15	6.52
8.22	2.41	75.90	1.51	23.74	7.48	20.23	10.45	16.23	9.50
0.13	0.04	1.86	0.04	0.13	0.04	0.07	0.04	0.06	0.04
0.74	0.22	11.01	0.22	0.77	0.22	0.42	0.21	0.33	0.22
4.12	1.21	8.15	0.16	4.40	1.23	1.85	0.96	2.20	1.29
0.08	0.02	1.28	0.03	0.09	0.02	0.04	0.02	0.04	0.03
0.54	0.16	18.50	0.37	7.64	2.14	0.99	0.51	0.87	0.51
2.91	0.85	144.41	2.87	33.92	9.49	18.52	9.57	19.77	1.57
2.20	0.64	46.58	0.93	11.72	3.28	6.12	3.16	6.03	3.53
1.03	0.30	40.07	0.80	11.76	3.29	7.67	3.96	6.72	3.93
0.04	0.01	0.57	0.01	0.04	0.01	0.03	0.02	0.02	0.01
0.31	0.09	4.68	0.09	0.33	0.09	0.18	0.09	0.15	0.09
0.45	0.13	1.51	0.03	1.07	0.30	0.79	0.41	0.68	0.40
0.22	0.06	20.78	0.41	4.58	1.27	4.00	2.07	3.45	2.02
5.66	1.66	116.83	2.32	11.71	3.27	6.70	3.46	6.36	3.72
2.69	0.79	86.93	1.73	18.52	5.18	10.30	5.17	10.68	6.25
0.09	0.03	1.23	0.03	0.10	0.03	0.06	0.03	0.06	0.04
0.33	0.10	9.12	0.18	0.27	0.08	0.17	0.09	0.10	0.06
0.07	0.02	1.03	0.02	0.07	0.02	0.04	0.02	0.03	0.02
1.90	0.56	254.88	5.07	45.93	12.84	28.42	14.69	30.95	18.11
14.75	4.32	425.27	8.46	..	..	22.35	11.55	39.80	23.28
2.35	0.69	98.72	1.96	..	..	2.40	1.24	5.17	3.03
2.12	0.62	78.29	1.56	5.56	1.56	3.02	1.56	2.68	1.57
109.60	32.09	907.48	18.05	289.55	80.99	124.68	64.43	118.29	69.22
1.48	0.43	26.93	0.54	2.90	0.81	0.90	0.47	2.20	1.29
89.41	23.54	924.51	18.39	503.56	140.85	283.43	146.46	313.85	183.64
2.00	0.59	25.10	0.50	0.97	0.27	0.19	0.10	0.82	0.48
131.61	38.54	713.36	14.19	151.94	42.50	53.99	27.90	67.83	39.72
3.61	1.06	43.40	0.86	10.49	2.93	3.32	1.71	2.54	1.49
4.70	1.38	69.13	1.26	4.86	1.36	2.44	1.26	3.33	1.95
154.38	45.20	835.15	16.61	130.74	36.57	68.24	32.68	80.74	47.24
28.90	8.46	530.73	10.56	113.42	31.73	86.89	44.90	57.04	33.37
1.23	0.36	24.66	0.42	4.44	1.24	3.20	1.65	2.03	1.19
2.05	0.60	49.93	0.99	5.58	1.56	3.40	1.76	3.23	1.92
0.15	0.04	4.98	0.10	0.99	0.28	0.92	0.48	0.50	0.29
20.06	5.87	611.38	12.16	125.05	34.98	75.02	38.76	39.04	22.84
1.95	0.57	32.53	0.65	6.93	1.94	3.45	1.78	4.62	2.70
0.04	0.01	19.73	0.39	0.99	0.28	0.66	0.34	0.44	0.26
..	..	11.52	0.23	0.88	0.24	0.45	0.23	0.38	0.22
0.98	0.27	16.61	0.33	5.10	1.43	1.31	0.63	3.60	2.11
9.29	2.72	136.46	2.71	9.72	2.72	5.19	2.68	4.65	2.72
43.39	12.70	275.24	5.48	66.12	18.49	37.94	19.30	33.96	15.87
53.35	15.62	475.05	9.45	272.76	76.30	112.91	58.35	97.49	57.04
50.18	14.69	92.12	1.83	34.18	9.56	10.99	5.68	19.15	11.21
352.19	103.12	1054.17	20.97	420.84	117.71	140.70	72.71	251.04	146.89
144.36	42.27	583.13	11.60	234.71	65.65	68.58	35.44	82.60	48.33
852.94	249.75	4725.34	94.00	1182.64	330.80	472.43	244.13	448.79	262.60
4187.28	1226.03	23790.06	473.25	6609.79	1848.87	2978.61	1539.20	3488.56	2041.28

# The Co-operative Union Limited.

OFFICES :

CITY BUILDINGS, 69, CORPORATION STREET,  
MANCHESTER.

## WHAT IS THE CO-OPERATIVE UNION ?

**I**T is an institution charged with the duty of keeping alive and diffusing a knowledge of the principles which form the life of the Co-operative movement, and giving to its active members, by advice and instruction—literary, legal, or commercial—the help they may require, that they may be better able to discharge the important work they have to do.

## WHAT HAS IT DONE ?

THE greater part of the legal advantages enjoyed by Co-operators originated in the action of the Central Board of the Union, and the Central Committee which it succeeded. They may be summarised as follows:—

- (1) The right to deal with the public instead of their own members only.
- (2) The incorporation of the Societies, by which they have acquired the right of holding in their own name lands or buildings and property generally, and of suing and being sued in their own names, instead of being driven to employ trustees.
- (3) The power to hold £200 instead of £100 by individual members of our Societies.
- (4) The limitation of the liability of members for the debts of the Society to the sum unpaid upon the shares standing to their credit.
- (5) The exemption of Societies from charge to income tax on the profits of their business, under the condition that the number of their shares shall not be limited.
- (6) The authorising one Registered Society to hold shares in its own corporate name to any amount in the capital of another Registered Society.
- (7) The extension of the power of members of Societies to bequeath shares by nomination in a book, without the formality of a will or the necessity of appointing executors, first from £30 to £50, and now to £100, by the Provident Nominations and Small Intestacies Act, 1883, which also makes this power apply to loans and deposits as well as to shares.
- (8) The Industrial and Provident Societies Act, 1871, which enables Societies to hold and deal with land freely.
- (9) The Industrial and Provident Societies Act 1876, which consolidated into one Act the laws relating to these Societies, and, among many smaller advantages too numerous to be mentioned in detail, gave them the right of carrying on banking business whenever they offer to the depositors the security of transferable share capital.
- (10) The Industrial and Provident Societies Act, 1893.

The Union consists of Industrial and Provident Societies, Joint-Stock Companies, and other bodies corporate.

No Society is admitted into Union unless its management is of a representative character, nor unless it agree—

- (1) To accept the statement of principles in the rules of the Union as the rules by which it shall be guided in all its own business transactions.
- (2) To contribute to the fund called the Congress Fund the annual payment following:—
  - (a) If the number of members of any such Society, or of the employés of any such industrial partnership, is less than 500, then the sum of 2d. for each member.
  - (b) If the number of such members or employés exceed 500, then, at least, the sum of 1,000d.

In estimating the number of members of a Society comprising other Societies, each such Society is considered to be one member.

The subscription is considered due, 1d. in the first and 1d. in the third quarter of each year, but may be wholly paid in the first quarter.

The financial year commences on April 1st in each year, and ends on March 31st following.

N.B.—Secretaries forwarding Cheques on account of the Union are requested to make them payable to the Co-operative Union Limited; Money Orders to A. WHITEHEAD, Cashier.

## SUMMARY OF THE LAW RELATING TO SOCIETIES

UNDER THE

INDUSTRIAL AND PROVIDENT SOCIETIES ACT, 1876,

THE CUSTOMS AND INLAND REVENUE ACT, 1880, AND THE PROVIDENT

NOMINATIONS AND SMALL TESTAMENTS ACT, 1883.

### *I. The Formation of Societies—*

1. Application must be made to the Registrar of Friendly Societies, in London, Edinburgh, or Dublin, according to the case, on a form supplied by the office, signed by seven persons and the secretary, accompanied by two copies of the rules, signed by the same persons.

2. These rules must provide for twenty matters stated on the form of application.

3. No fees charged on the registration of a society.

N.B.—Model rules on these twenty matters can be obtained from the Registrar's office; and the Co-operative Union Limited, 14, City Buildings, Corporation Street, Manchester, publishes, at the cost of 1½d. a copy, general rules, approved of by the Chief Registrar, providing also for many other matters on which rules are useful; and capable of being adopted, either with or without alterations, by a few special rules, with a great saving in the cost of printing.

The General Secretary of the Union will prepare such special rules, without charge, on receiving a statement of the rules desired.

### *II. Rights of a Registered Society—*

1. It becomes a body corporate, which can by its corporate name sue and be sued, and hold and deal with property of any kind, including shares in other societies or companies, and land to any amount.

2. Its rules are binding upon its members, though they may have signed no assent to them; but may be altered by amendments duly made as the rules provide, and registered, for which a fee of 10s. is charged. The application for registration must be made on a form supplied by the Registrar's office.

3. It can sue its own members, and can make contracts, either under its seal or by a writing signed by any person authorised to sign, or by word of mouth of any person authorised to speak for it, which will be binding wherever a contract similarly made by an individual would bind him.

4. It may make all or any of its shares either transferable or withdrawable, and may carry on any trade, including the buying and selling of land, and banking under certain conditions, and may apply the profits of the business to any lawful purpose; and, if authorised by its rules, may receive money on loan, either from its members or others, to any amount so authorised.

5. If it has any withdrawable share capital it may not carry on banking, but may take deposits, within any limits fixed by its rules, in sums not exceeding 10s. in any one payment, or £20 for any one depositor, payable at not less than two clear days' notice.

6. It may make loans to its members on real or personal security; and may invest on the security of other societies or companies, or in any except those where liability is unlimited.

7. If the number of its shares is not limited either by its rules or its practice, it is not chargeable with income tax on the profits of its business.

8. It can, in the way provided by the Act, amalgamate with or take over the business of any other society, or convert itself into a company.

9. It can determine the way in which disputes between the society and its officers or members shall be settled.

10. It can dissolve itself, either by an instrument of dissolution signed by three-fourths of its members, or by a resolution passed by a three-fourths vote at a special general meeting, of which there are two forms—(A) purely voluntary, when the resolution requires confirmation at a second meeting; (B) on account of debts, when one meeting is sufficient. In such a winding up hostile proceedings to seize the property can be stayed.

### *III. Rights of the Members (see also IV., 4, 5, 6)—*

1. They cannot be sued individually for the debts of the society, nor compelled to pay more towards them than the sum remaining unpaid on any shares which they have either expressly agreed to take or treated as their property, or which the rules authorise to be so treated.

2. If they transfer or withdraw their shares, they cannot be made liable for any debts contracted subsequently, nor for those subsisting at the time of the transfer or withdrawal, unless the other assets are insufficient to pay them.

3. Persons not under the age of 16 years may become members, and legally do any acts which they could do if of full age, except holding any office

4. An individual or company may hold any number of shares allowed by the rules, not exceeding the nominal value of £200, and any amount so allowed as a loan. A society may hold any number of shares.

5. A member who holds at his death not more than £100 in the society as shares, loans, or deposits, may, by a writing recorded by it, nominate, or vary or revoke the nomination of any persons to take this investment at his death; and if he dies intestate, without having made any subsisting nomination, the committee of management of the society are charged with the administration of the fund; subject in either case to a notice to be given to the Commissioners of Inland Revenue whenever the sum so dealt with exceeds £80.

6. The members may obtain an inquiry into the position of the society by application to the Registrar.

### *IV. Duties of a Registered Society—*

1. It must have a registered office, and keep its name painted or engraved outside, and give due notice of any change to the Registrar.

2. It must have a seal on which its name is engraved.

3. It must have its accounts audited at least once a year, and keep a copy of its last balance sheet and the auditors' report constantly hung up in its registered office.

4. It must make to the Registrar, before the 31st of March in every year, a return of its business during the year ending the 31st December previous, and supply a copy of its last returns gratis to every member and person interested in its funds on application.

5. It must allow any member or person interested in its funds to inspect his own account and the book containing the names of the members.

6. It must supply a copy of its rules to every person on demand, at a price not exceeding one shilling.

7. If it carries on banking, it must make out in February and August in every year, and keep hung up in its registered office, a return, in a form prescribed by the Act; and it has also to make a return every February to the Stamp-office under the Banking Act.

The non-observance by a society of these duties exposes it and its officers to penalties varying from £1 to £50, which are in some cases cumulative for every week during which the neglect lasts.

THE  
 “Co-operative      News”

AND  
 JOURNAL OF ASSOCIATED INDUSTRY.

— — — — —  
 The Official Organ of Industrial and Provident  
 Co-operative Societies.  
 — — — — —

THE *NEWS* is the property of a Federation of Co-operative Societies located in all parts of Great Britain. It is an exponent of opinion, thoroughly impartial and comprehensive, upon all subjects connected with Association, particularly in its application to the Distribution and Production of Wealth. It is a free platform for the discussion of topics bearing upon the social well-being of the people, and affords an opportunity for the expression of every view of Co-operation which commends itself as thoughtful and sincere.

The importance of maintaining a vehicle for the conveyance of co-operative intelligence cannot be over-rated.

**Each Society is invited to become a Shareholder, and every Individual Co-operator is solicited to Subscribe.**

The *News* may be had by application to any Bookseller, through the Local Stores, or from the Offices of the Society,

88 AND 90, CORPORATION STREET, MANCHESTER;

119, PAISLEY ROAD, GLASGOW;

AND

35, RUSSELL STREET, COVENT GARDEN, LONDON, W.C.

N.B.—CLOTH CASES for the *News* will be SUPPLIED GRATIS to Societies who send copies to public and semi-public reading-rooms.

**PRICE ONE PENNY WEEKLY.**

*Sold at many of the Stores at One Halfpenny.*

THE  
Co-operative Insurance Company

LIMITED.

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ESTABLISHED 1867.

HEAD OFFICES :  
CITY BUILDINGS, CORPORATION ST., MANCHESTER.

PRINCIPAL AGENCIES :  
SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED,

119, PAISLEY ROAD, GLASGOW ;

*And each Branch of the Co-operative Wholesale Society Limited.*

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DIRECTORS :

CHAIRMAN—MR. WILLIAM BARNETT, Macclesfield.

MR. WM. BAMFORTH, Manchester.	MR. ROBERT HOLT, Rochdale.
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MR. B. HEPWORTH, Heckmondwike.	MR. A. MILLER, Glasgow.
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MR. W. A. HILTON, Bolton.	MR. T. RAWLINSON, Burnley.
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MR. T. WOOD, Manchester.

AUDITORS :

MR. A. HACKNEY, Bolton, and MR. J. E. LORD, Rochdale.

MANAGER :

JAMES ODGERS.

BANKERS :

THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED.



THE CO-OPERATIVE INSURANCE COMPANY LIMITED was registered on August 29th, 1867, to save the difference between the premiums usually charged for insurance and the actual losses and central and local expenses incurred.

This difference consists of two parts—

- (A) Any excess of Agents' Commission over fair payment for local work done ; such commissions being fixed percentages, irrespective of the ratios of losses and expenses of management.
- (B) The balances of premiums left after paying claims, expenses, and commissions ; such balances increasing the funds when the claims do not exceed the average, and reducing them when the claims are exceptionally heavy.

Every member, whether a shareholder or not, guarantees £5, no part of which is to be paid up except in the remote contingency of the Company being wound up. In the latter event no loss can be suffered under these guarantees, unless the fully subscribed capital of £50,000 should prove insufficient to meet the liabilities.

The balances of premiums referred to in clause B above are required by the Articles of Association to be accumulated to form three separate Insurance Funds, for the Fire, Fidelity, and Life Departments respectively, "neither of which shall be available for the payment of a dividend to shareholders as such," this growth of the funds being needed to provide for the growing liabilities of the Company under its policies.

The income from the investments of the Life Insurance Fund is credited to that fund, the profits of which are divisible exclusively with Life policy-holders. The balance of the income from all other investments after paying an annual dividend of 6 per cent upon one-fifth of the shareholders' liability, *i.e.*, upon the four shillings per share called up, and 3 per cent upon the sum (if any) paid up in advance of calls, is carried to the Reserve Fund to increase the general security.

The following statement shows the progress of the Company to the end of 1892:—

YEAR.	No. of Society Members.	Subscribed Capital, 4s. per Share Called up.	Fire Insurance.		Fidelity Guarantee.		Life Insurance.		Commission Allowed to Society Agents.	Funds in excess of Paid-up Capital.
			Premiums after Deducting Re-Insurances.	Losses.	Pre-miums.	Losses.	Pre-miums.	Claims.		
	Seven months only —	£	£	£	£	£	£	£	£	£
1868..	41	1,715	208	6	67	Nil.	Nil.	Nil.	* Includes Bonus for first Seven Years.	188
1870..	41	1,715	157	1	123	..	..	..	Nil.	378
1871..	42	4,216	173	Nil.	162	..	..	..	..	597
1872..	46	6,468	256	62	253	..	..	..	..	961
1873..	51	9,494	369	28	392	3	..	..	..	1,488
1874..	64	10,706	571	29	449	200	..	..	2	2,121
1875..	71	11,314	1,075	1,861	559	Nil.	..	..	*100	1,508
1876..	89	11,877	1,725	39	457	..	..	..	18	3,444
1877..	96	12,365	3,896	1,613	525	270	..	..	34	5,250
1878..	109	13,208	6,343	6,933	399	Nil.	..	..	51	3,545
1879..	128	15,996	5,114	3,888	568	23	..	..	142	4,094
1880..	144	17,698	3,405	3,403	543	50	..	..	229	3,425
1881..	169	19,377	3,062	2,738	541	402	..	..	357	3,068
1882..	180	20,170	2,834	1,741	537	692	..	..	426	3,197
1883..	194	22,985	3,111	2,275	551	278	..	..	509	3,403
1884..	204	23,760	3,448	461	620	286	..	..	470	5,369
1885..	236	26,475	4,425	2,463	777	1,132	..	..	552	5,665
1886..	260	29,020	4,711	1,117	699	300	118	..	588	8,007
1887..	268	30,540	5,590	1,387	803	794	613	..	663	10,655
1888..	278	31,855	6,138	1,245	786	225	963	..	672	14,761
1889..	287	33,775	6,702	3,400	894	726	1,069	125	722	17,153
1890..	293	43,465	7,393	3,005	958	37	1,256	100	745	21,376
1891..	305	50,000	8,086	2,634	1070	268	1,692	25	835	26,767
1892..	317	50,000	9,199	5,261	1188	222	1,950	100	898	30,396

Individuals are no longer admitted members of the Company, and when existing members wish to dispose of their shares the preference as transferees is given to societies.

**All Co-operative Societies in the United Kingdom that are not yet connected with the Company are invited to join it as members and agents. By doing so they will be entitled to take part, by representation, in the general meetings which elect the directors and control the administration; and will obtain the usual commission on insurances effected through their agency, including commission on insurances of their own corporate property.**

**FIRE DEPARTMENT BEGUN 1868.**

**CLAIMS PAID, £45,590.**

INSURANCES against loss by Fire are effected on Co-operative Stores, Dwelling-houses, Schools, Public Buildings, Churches, Chapels, Farming Property, and most other classes of risk.

Losses by Lightning are paid, also losses by the Explosion of Coal Gas in buildings other than gasworks.

Societies are invited to transfer Insurances from other companies to the "Co-operative." Their members are also invited to have their Houses, Furniture, and other property insured by it.

## FIDELITY DEPARTMENT BEGUN 1869.

## CLAIMS PAID, £5,908.

POLICIES are issued insuring Co-operative Societies against loss by acts of Embezzlement or Theft committed by persons employed by them in situations of trust.

## LIFE DEPARTMENT BEGUN 1886.

## CLAIMS PAID, £350.

LOW RATES.—Surplus divisible exclusively with Life policy-holders. Claims paid immediately after proof of death and title. All reasonable facilities given to prevent lapsing of policies. Liberal surrender values.

## PREMIUMS FOR THE INSURANCE OF £100 AT DEATH.

Age next Birthday.	Single Premium.	Yearly.	Half-yearly.	Quarterly.	Age next Birthday.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
20	37 8 6	1 15 8	0 18 10	0 10 0	20
30	43 17 1	2 5 10	1 4 0	0 12 8	30
40	51 13 3	3 1 8	1 12 1	0 16 8	40
50	60 17 5	4 7 6	2 5 4	1 3 4	50

## PREMIUMS FOR THE INSURANCE OF £100 AT AGE 60 OR AT DEATH, IF THAT EVENT SHOULD OCCUR EARLIER.

Age next Birthday.	Single Premium.	Yearly.	Half-yearly.	Quarterly.	Age next Birthday.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
20	43 1 2	2 5 2	1 3 11	0 12 11	20
30	51 19 2	3 3 0	1 12 11	0 17 5	30
40	63 11 7	4 17 11	2 10 9	1 6 6	40
50	79 11 4	9 14 11	5 1 4	2 12 3	50

## NEW SYSTEM OF DEFERRED INSURANCE ON CHILDREN'S LIVES WITHOUT MEDICAL EXAMINATION.

The full sum insured becomes payable at death if taking place after age twenty-one, or on the attainment of age fifty. The whole of the premiums paid, with compound interest thereon at 4 per cent per annum, will be returned in the event of death occurring under age twenty-one.

The policies carry the right to participation in the profits of the not medically examined section of the Life business of the Company.

The Rates of Premium for the various Insurances will be supplied on application.

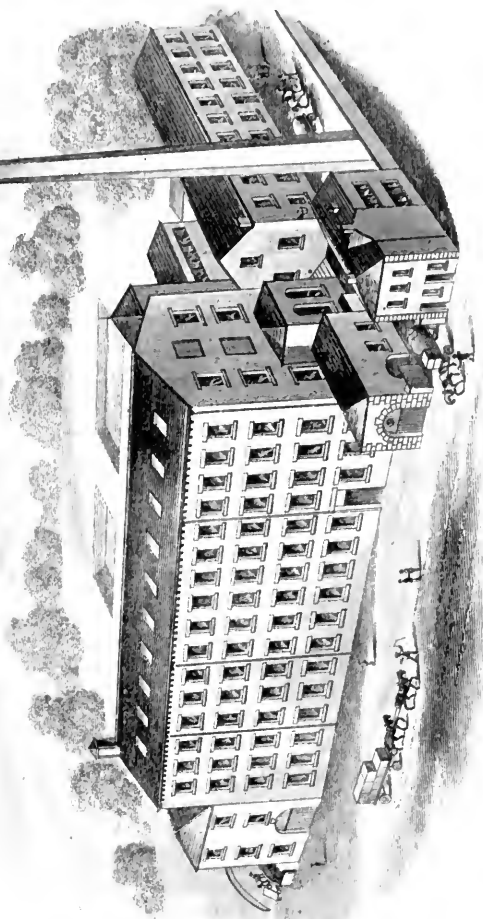
Policies Insuring £25, £50, and £75 are issued for proportionate parts of the premium for £100, subject to the limitation that no Life Policy is issued for a less premium than Five Shillings.

*Forms of Application for Admission of Societies as Members, and for Appointment as Agents; also Proposal Forms for Insurance, may be obtained from the Office as above.*

THE LANCASHIRE & YORKSHIRE PRODUCTIVE SOCIETY LIMITED.

Anti-Rheumatic Flannels.

Domestic Flannels.



MANUFACTURERS,

HARE HILL MILLS, LITTLEBOROUGH, near Manchester.

*The Celebrated Economic Flannels.*

We beg most respectfully to ask your kind and generous support of the above Society.



The various descriptions of FLANNELS now made are admitted by those who have fully tried them to be unsurpassed in MAKE, WEIGHT, QUALITY, and PRICE.

It is earnestly requested that all Co-operative Societies press the sale of these Flannels amongst their members.

Economy is the order of the day, and we are fully justified in describing the Flannels made at the above mills as the

# Celebrated Economic Flannels.

Whenever you are buying be sure and ask for them.

They can be had at any of the following Co-operative Establishments :

1, BALLOON STREET, MANCHESTER.

WATERLOO STREET, NEWCASTLE-ON-TYNE.

LEMAN STREET, WHITECHAPEL, LONDON.

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY, PAISLEY ROAD, GLASGOW.  
AND AT

THE MILLS, HARE HILL ROAD, LITTLEBOROUGH.

# THE LANCASHIRE AND YORKSHIRE PRODUCTIVE SOCIETY LIMITED.

## STATEMENT SHOWING CONDITION AND PROGRESS OF THE SOCIETY SINCE ITS COMMENCEMENT.

DATE.	Share Redemp- tion Fund.	Share Capital.	LOAN CAPITAL.				Profits.	Losses.	SALES.		
			Co-operative Societies.	Friendly Societies.	Individuals.	Total.			Co-operative.	Merchants.	Total.
Half-year ending July 11, 1874....	£	6195	..	.. 50	841	891	..	..	..	..	..
" " Jan. 9, 1875....	..	6195	2380	668	1234	4432	456	..	..	16	1597
" " July 9, ".....	..	6495	2388	920	1273	4581	..	1896	5919	167	6087
" " Jan. 8, 1876....	..	6495	2423	960	1372	4756	43	43	5585	659	6244
" " July 8, ".....	..	6495	2492	1091	1461	5525	..	..	4338	9827	7165
" " Jan. 6, 1877....	..	6800	2972	1297	1835	6067	157	496	2677	3136	6814
" " July 7, ".....	..	6800	2946	1382	1723	6051	..	544	3094	4437	7551
" " Jan. 5, 1878....	..	6800	2918	1295	1808	5821	..	†1451	3683	4273	6273
" " June 29, ".....	..	*2640	2856	1268	1269	5395	..	966	1329	3958	5287
4½ Months ending Nov. 16, " ..	..	2640	2856	1268	1269	5395	..	..	..	..	..
IN LIQUIDATION.											
1½ Months ending Jan. 4, 1879....	..	2640	2876	1277	1278	5432	20	..	473	939	1413
" " April 5, ".....	..	2640	2912	1363	1364	5499	25	..	1531	1271	2803
" " July 5, ".....	..	2640	2948	1390	1310	5568	88	..	1546	709	2256
" " Oct. 4, ".....	..	2640	2985	1325	1386	5637	55	..	1639	172	1812
" " Jan. 3, 1880....	..	2640	3022	1341	1345	5708	92	..	3988	210	4198
" " April 3, ".....	..	2640	3060	1357	1382	5799	93	..	3276	115	3391
" " July 3, ".....	..	2640	5406	1373	1511	8290	95	..	3707	204	3911
" " Oct. 2, ".....	..	2640	5449	1411	1529	8389	84	..	3169	138	3307
" " Jan. 1, 1881....	..	2640	5486	1439	1575	8490	21	..	4366	175	4441
" " April 2, ".....	..	2640	5528	1448	1611	8587	32	..	3906	143	3949
" " July 2, ".....	..	2640	5569	1465	1631	8665	19	..	3249	124	2973
" " Oct. 1, ".....	..	2640	5609	1484	1652	8745	8	..	3803	932	4295
" " Jan. 7, 1882....	..	2640	5651	1502	1723	8876	12	..	3719	562	4311
" " April 8, ".....	..	2640	5692	1521	1765	8978	12	..	3417	133	3550



THE  
SCOTTISH  
CO-OPERATIVE WHOLESALE SOCIETY  
LIMITED.

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PLATES, ADVERTISEMENTS, STATISTICS, &c.,

PAGES 118 TO 170.



## INTRODUCTION.

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TO THE MEMBERS :

IN placing the "Annual" for 1894 in your hands, we have no doubt that the interest it will excite will be not less than that evoked by previous issues. The contents are equally varied and interesting, and well worthy, we think, of a careful and thoughtful perusal. The subjects dealt with in the general part of the volume are of widespread importance, and we feel certain that the manner in which they are treated will do something in the way of solving some of the social problems which are being so generally debated at the present time.

Those portions of the volume which are specially reserved for matters affecting the Scottish Wholesale are compiled on the same lines as last year. The statistics have been brought up to date, and record continued progress in all departments of the Society. We do not think it necessary to say anything further by way of recommending the "Annual." We leave it to speak for itself, and that is, after all, really the truest and best recommendation.





John Arthur.	Thos. Little.	Daniel Thomson.	Peter Glasce.	T. C. McNab.	Henry Murphy.
John Stevenson.	Andrew Miller, <i>Secy.</i>	Wm. Maxwell, <i>Pres.</i>	John Pearson.	I. MacDonald.	John Adams.

**DIRECTORS: SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY, LIMITED.**



# Twenty-five Years' Wholesale Distribution in Scotland.

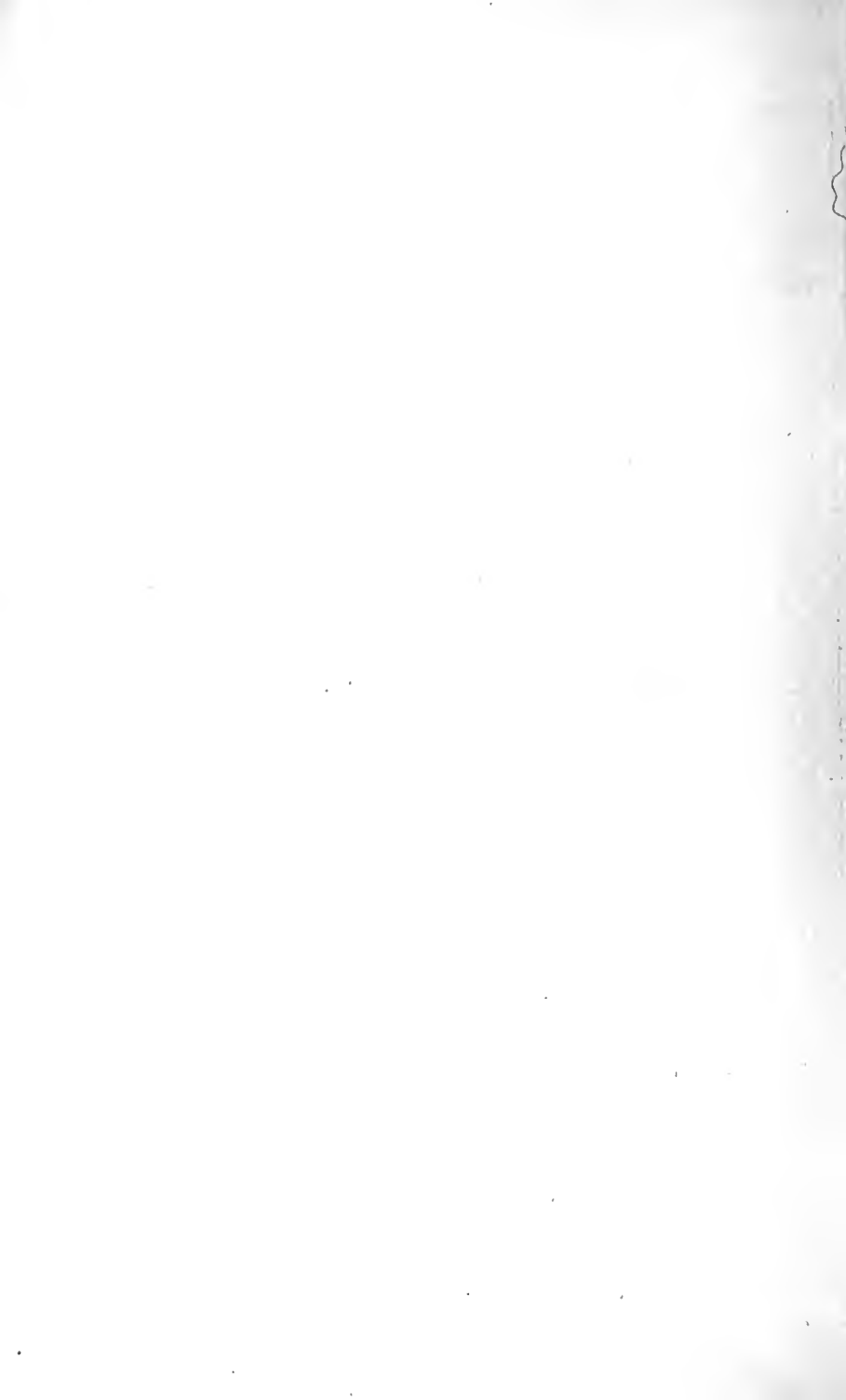


## Scottish Co-operative Wholesale Society Ltd.

YEARS.	CAPITAL.	SALES.	PROFITS.	YEARS.
1868, 13 weeks	£1,795	£9,697	£48	13 weeks, 1868
1869, 52 "	5,175	81,094	1,304	52 " 1869
1870, 50 "	12,543	105,249	2,419	50 " 1870
1871, 52 "	18,009	162,658	4,131	52 " 1871
1872, 52 "	30,931	262,530	5,435	52 " 1872
1873, 52 "	50,433	384,489	7,446	52 " 1873
1874, 52 "	48,982	409,947	7,553	52 " 1874
1875, 52 "	56,751	430,169	8,233	52 " 1875
1876, 51 "	67,219	457,529	8,836	51 " 1876
1877, 52 "	72,568	589,221	10,925	52 " 1877
1878, 52 "	83,174	600,590	11,969	52 " 1878
1879, 52 "	93,077	630,097	14,989	52 " 1879
1880, 52 "	110,179	845,221	21,685	52 " 1880
1881, 54 "	135,713	986,646	23,981	54 " 1881
1882, 52 "	169,429	1,100,588	23,220	52 " 1882
1883, 52 "	195,396	1,253,154	28,366	52 " 1883
1884, 52 "	244,186	1,300,331	29,435	52 " 1884
1885, 52 "	288,946	1,438,220	39,641	52 " 1885
1886, 60 "	333,653	1,857,152	50,398	60 " 1886
1887, 53 "	367,309	1,810,015	47,278	53 " 1887
1888, 52 "	409,668	1,963,853	53,538	52 " 1888
1889, 52 "	480,622	2,273,782	61,756	52 " 1889
1890, 52 "	575,322	2,475,601	76,545	52 " 1890
1891, 52 "	671,108	2,828,036	89,090	52 " 1891
1892, 53 "	778,494	3,104,768	96,027	53 " 1892
1893, 26 "	821,541	1,538,449	48,970	26 " 1893
TOTALS.	821,541	28,899,086	773,218	TOTALS.



Commenced September, 1868.



# SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

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*Enrolled 20th April, 1868, under the provisions of the Industrial and Provident Societies Act, 20th August, 1867, 30 and 31 Vict., cap. 117, sec. 4.*

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Business Commenced 8th September, 1868.

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REGISTERED OFFICE, GROCERY AND PROVISION WAREHOUSE:

119, PAISLEY ROAD, GLASGOW.

DRAPERY WAREHOUSE:

DUNDAS AND ST. JAMES' STREETS, GLASGOW.

BOOT AND SHOE WAREHOUSE:

PATERSON AND ST. JAMES' STREETS.

FURNITURE WAREHOUSE:

DUNDAS STREET, GLASGOW.

BOOT AND SHOE FACTORY, CLOTHING FACTORY, CABINET WORK-  
SHOP, PRINTING WORKSHOP, PRESERVE AND CONFECTION  
WORKS, MANTLE FACTORY, COFFEE ESSENCE WORKS,  
TOBACCO FACTORY, AND PICKLE WORKS:

SHIELDHALL, near GOVAN, GLASGOW.

# Scottish Co-operative Wholesale Society Limited.

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## BRANCHES :

LINKS PLACE, LEITH.      GRANGE PLACE, KILMARNOCK.

TRADES LANE, DUNDEE.

HENRY STREET, ENNISKILLEN, IRELAND.

## TEA AND COFFEE DEPARTMENT :

Hooper Square, Leman Street, Whitechapel, London.

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## BANKERS :

THE UNION BANK OF SCOTLAND LIMITED.

## HEAD OFFICES :

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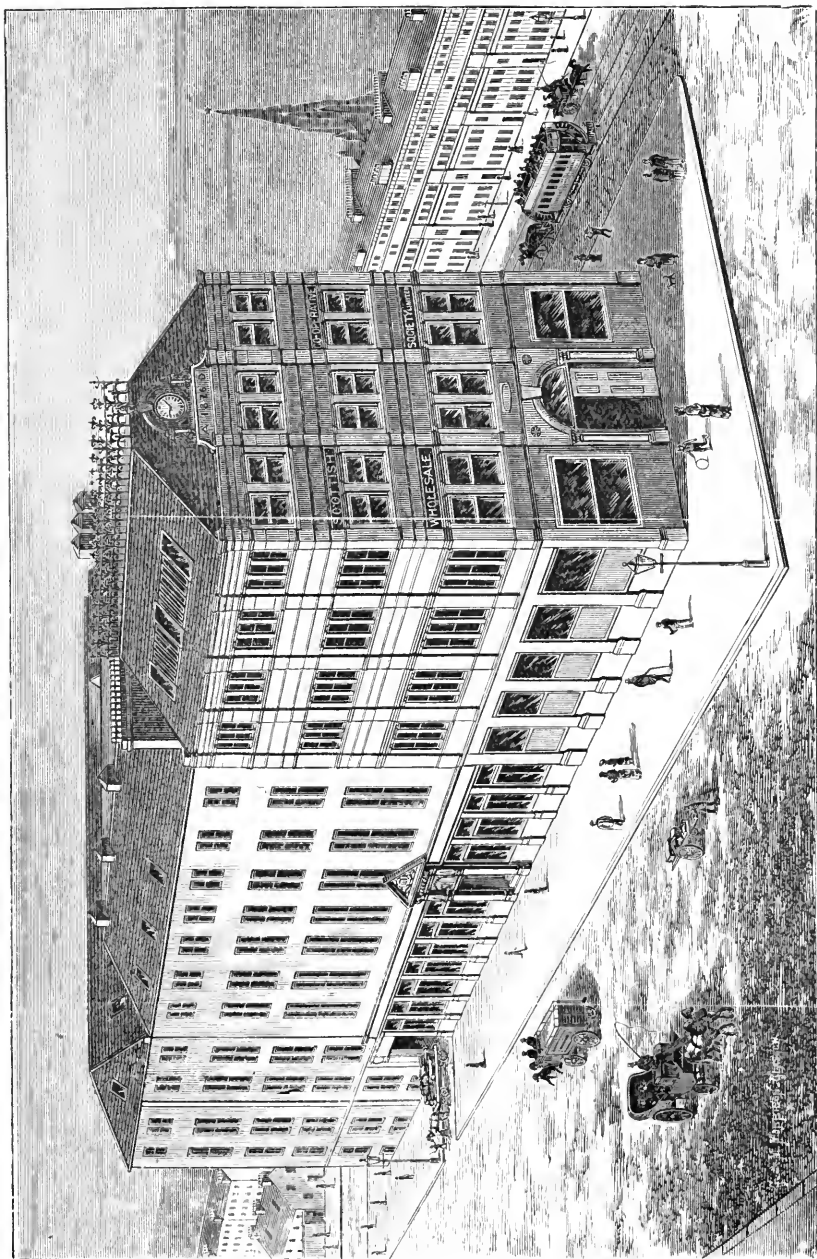
GLASGOW :  
INGRAM STREET.

LONDON :  
62, CORNHILL, E.C.

EDINBURGH :  
GEORGE STREET.

MANAGER :	MANAGER :	MANAGER :
CHARLES GAIRDNER.	JOHN A. FRADGLEY.	HENRY HAY NORIE.

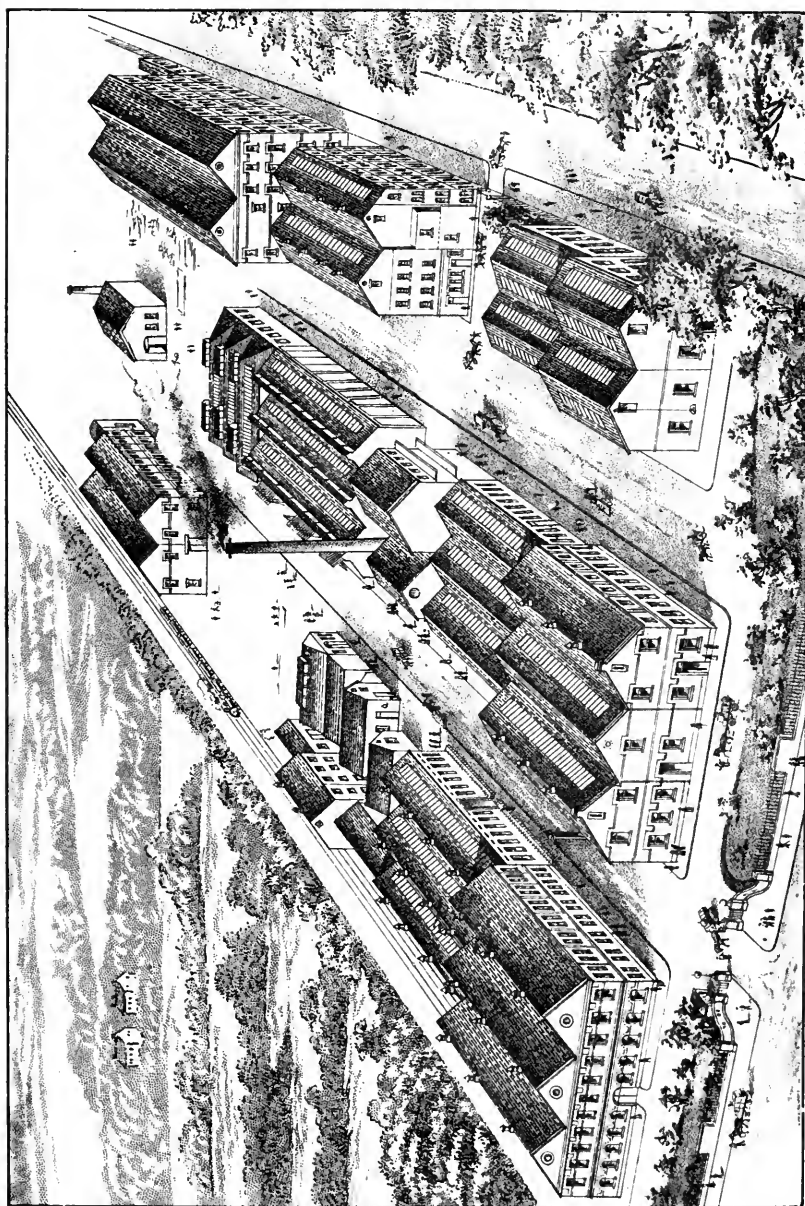




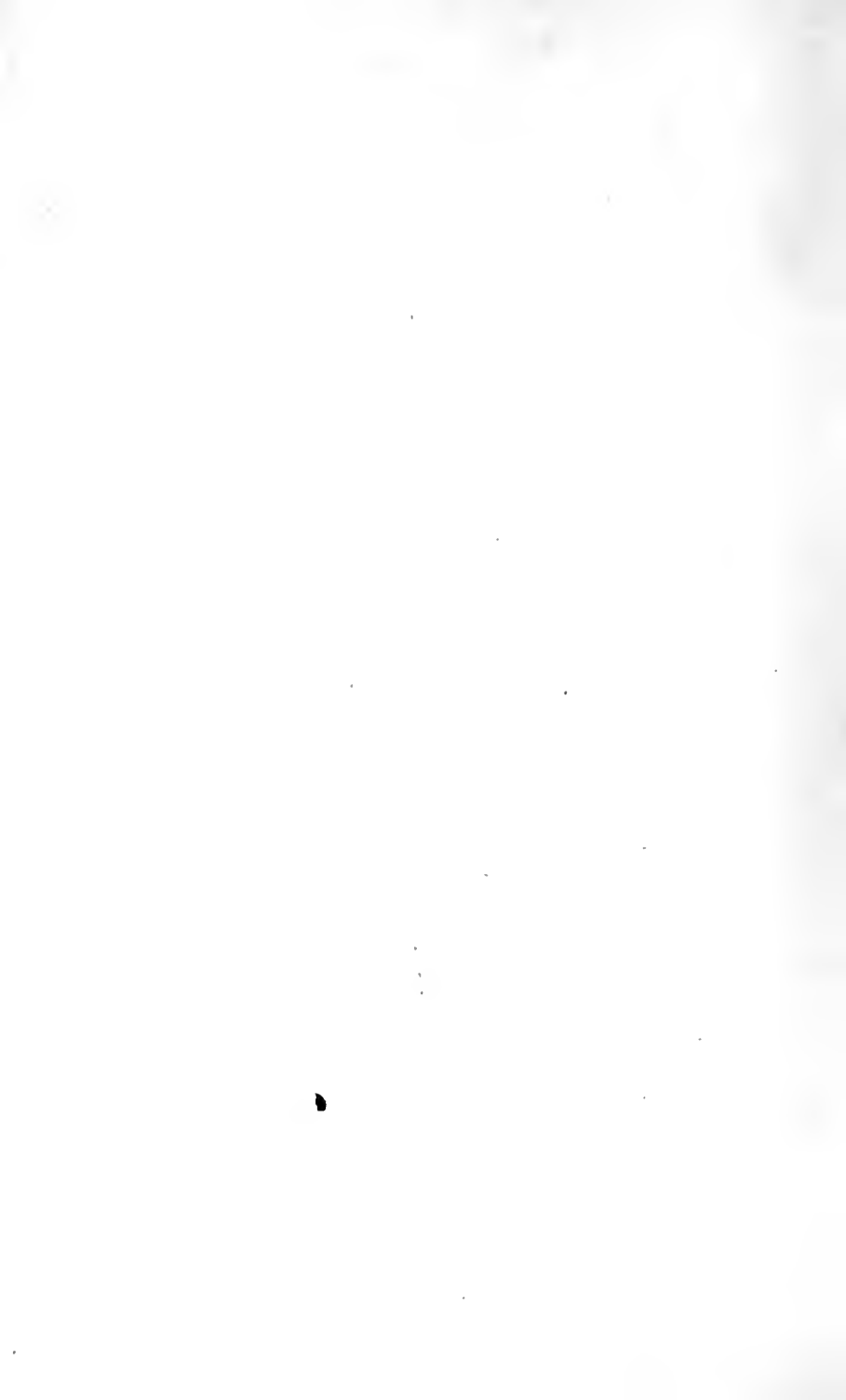
REGISTERED OFFICE, GROCERY AND PROVISION WAREHOUSES, 119, PAISLEY ROAD, GLASGOW.

*See pages 130, to 132.*





· PRODUCTIVE WORKS · SHIELDHALL, GOVAN; NEAR GLASGOW.



## General Committee.

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### PRESIDENT :

Mr. WILLIAM MAXWELL, 36, Woodburn Terrace, Morningside, Edinburgh.

### SECRETARY :

Mr. ANDREW MILLER, Moss Road, Tillicoultry.

### DIRECTORS :

Mr. ISAAC MACDONALD ..... 7, Knoxland Street, Dumbarton.  
 Mr. DANIEL THOMSON ..... 67, Priory Lane, Dunfermline.  
 Mr. JOHN STEVENSON ..... 2, Park Lane, Kilmarnock.  
 Mr. T. C. McNAB ..... 25, Dalmeny Street, Leith.  
 Mr. JOHN ARTHUR ..... 139, George Street, Paisley.  
 Mr. HENRY MURPHY ..... Bloomgate, Lanark.  
 Mr. JOHN PEARSON .... . Ludgate Place, Alloa.  
 Mr. JOHN ADAMS..... 12, Anderson Street, Kinning Park.  
 Mr. PETER GLASSE ..... Myrtle Street, Glasgow.  
 Mr. THOMAS LITTLE ..... 3, Hall Street, Galashiels.

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### SUB-COMMITTEES.

FINANCE :	{	Mr. WILLIAM MAXWELL, Mr. JOHN STEVENSON. Mr. ANDREW MILLER (Convener).
BUILDING :	{	Mr. ISAAC MACDONALD. Mr. HENRY MURPHY. Mr. ANDREW MILLER. Mr. THOMAS LITTLE. Mr. WILLIAM MAXWELL (Convener).
PRODUCTIVE :	{	Mr. ISAAC MACDONALD. Mr. JOHN ADAMS. Mr. JOHN PEARSON (Convener).
DRAPERY :	{	Mr. THOMAS LITTLE. Mr. PETER GLASSE. Mr. T. C. McNAB (Convener).
GROCERY :	{	Mr. HENRY MURPHY. Mr. DANIEL THOMSON. Mr. JOHN ARTHUR (Convener).

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### AUDITORS :

Mr. JOHN ALEXANDER, Paisley. | Mr. JOHN MILLEN, Rutherglen.  
 Mr. JAMES INGLIS, Paisley.

# Officers of the Society.

---

## MANAGER :

Mr. JAMES MARSHALL, Glasgow.

## ACCOUNTANT :

Mr. ROBERT MACINTOSH, Glasgow.

## CASHIER :

Mr. ALLAN GRAY, Glasgow.

## BUYERS, SALESMEN, &c.

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### GROCERY AND PROVISION DEPARTMENTS.

Mr. E. ROSS .....	Glasgow.
Mr. J. MACDONALD .....	Glasgow.
Mr. R. REYBURN .....	Glasgow.
Mr. JNO. JAMIESON .....	Glasgow.
Mr. JAS. CALDWELL (Carting Superintendent) .....	Glasgow.
Mr. W. F. STEWART .....	Leith.
Mr. PETER ROBERTSON .....	Leith.
Mr. ANDREW PENNEY (Cattle Buyer) .....	Leith.
Mr. W. LAIRD .....	Kilmarnock.
Mr. DAVID CALDWELL .....	Kilmarnock.
Mr. J. BARROWMAN .....	Dundee.
Mr. WILLIAM WHYTE .....	Enniskillen.
Mr. CHARLES FIELDING (Tea) .....	London.
Mr. JOHN M'INTYRE (Potatoes) .....	Glasgow.
Mr. JOHN WHITE (Potatoes) .....	Leith.
Mr. N. ANDERSON (Traveller, Grocery Department) .....	Glasgow.
Mr. GEORGE BLACKWOOD (Traveller, Grocery Department) ..	Glasgow.
Mr. WM. DUNCAN (Cattle Buyer) .....	Glasgow.
<hr/>	
Mr. DAVID GARDINER (Drapery Department) .....	Glasgow.
Mr. ALEX. McFARLANE (Tailoring Factory) .....	Glasgow.
Mr. ALBERT JOHNSON (Boot and Shoe Factory) .....	Glasgow.
Mr. WILLIAM MILLER (Furniture Department) .....	Glasgow.
Mr. DAVID CAMPBELL (Printing) .....	Glasgow.
Mr. HENRY HEGGERTY (Preserve Works) .....	Glasgow.
Mr. THOMAS HARKNESS (Tobacco Factory) .....	Glasgow.
Mr. JAMES DAVIDSON (Clerk of Works) .....	Glasgow.
Mr. JAMES COATS (Mechanics' Department) .....	Glasgow.

## Business Arrangements.

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REGISTERED OFFICE :

119, PAISLEY ROAD, GLASGOW.

BRANCHES :

LINKS PLACE, LEITH ; GRANGE PLACE, KILMARNOCK ;

TRADES LANE, DUNDEE ;

HENRY STREET, ENNISKILLEN, IRELAND ;

HOOPER SQUARE, LEMAN STREET, WHITECHAPEL, LONDON.

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### BUSINESS ARRANGEMENTS.

SOCIETIES or Companies Registered (*to which our trade is strictly confined*) desirous of opening an account with this Society, will please forward a copy of the registered Rules and latest issued balance sheet. If newly started, a statement showing the number of members ; value of shares ; amount subscribed for and paid up ; weekly turnover expected ; also, if credit is allowed, the amount per member in proportion to the capital paid up. The information forwarded will be carefully considered, and, if found satisfactory, goods will be supplied on the usual business terms.

### CASH PAYMENTS.

BESIDES the usual invoice sent with each consignment of goods, a weekly statement of accounts (see page 126) is sent to each society, so that there may be no delay in remitting the amount due for the month, the limit of credit allowed by this Society. Interest at the rate of 5 per cent per annum is charged on all over-due accounts, and by a resolution adopted at a general meeting of the members, the committee of management are instructed and empowered to examine the books of defaulting societies and take the necessary steps to protect the interest of the federated societies.

### BUSINESS NOTICE.

WHEN ordering goods state price or brand of the article wanted, also mode of transit, and name of station to which the goods are to be sent. Orders for the different departments should be written on separate slips. Goods not approved of must be returned at once and intact. No claim for breakage, short weight, &c., can be entertained unless made within six days after goods are received. Delay in delivery should be at once advised.

# WEEKLY STATEMENT OF ACCOUNT.

5TH WEEK.

73RD QUARTER.

LEDGER FOLIO, 929.

119, PAISLEY ROAD,

GLASGOW, September 3rd, 1887.

*The Grahamston and Bainsford Co-operative Society Limited.*

**Dr. To The Scottish Co-operative Wholesale Society Limited. Cr.**

GOODS.			CASH AND CREDITS.			
Date.	Amount of each Invoice.	Balance last Statement.	Date.	Cash.	Credit.	Totals.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
Aug. 30..	0 4 3	698 7 2	Aug. 30..	....	0 5 0	....
" 30..	18 11 7	....	" 31..	....	1 0 0	....
" 30..	29 0 8	....	" 31..	....	0 12 9	....
" 30..	32 4 0	....	" 31..	....	0 12 10	....
" 30..	0 17 7	....	Sept. 1..	....	0 5 6	....
" 30..	4 10 0	....	" 1..	....	0 1 0	....
" 30..	4 4 0	....	" 1..	....	1 3 6	....
" 30..	3 2 6	....	" 1..	....	2 7 0	....
" 31..	0 6 6	....	" 2..	....	0 12 9	....
" 31..	0 8 3	....	" 2..	....	0 12 9	....
" 31..	0 10 10	....	" 2	....	0 14 9	....
" 31..	0 8 3	....	" 2..	....	0 10 0	....
" 31..	1 5 0	....	" 3..	....	0 15 6	....
" 31..	0 10 11	....	" 3..	....	10 11 1	....
" 31..	59 16 9	....	" 3..	....	0 15 6	....
" 31..	0 11 3	....	" 3..	....	1 12 0	....
" 31..	7 3 5	....				22 11 11
Sept. 1..	2 10 6	....	" 2..	600 0 0	....	600 0 0
" 1..	4 17 6	....				
" 1..	0 15 2	....				
" 3..	0 6 6	....				
" 3..	0 9 2	....				
" 3..	17 10 0	....				
" 3..	0 18 0	....				
" 3..	3 10 6	....				
" 3..	5 13 8	....				
" 3..	12 11 1	....				
" 3..	4 18 7	....				
" 3..	5 3 6	....				
" 3..	0 12 9	....				
" 3..	0 1 10	....				
" 3..	2 14 9	....				
" 3..	1 8 6	....				
" 3..	27 12 8	....				
		255 10 5				
	Tobalance,	....			By balance	331 5 8
	£	937 17 7			£	953 17 7

*If the above Statement differs from your Books, we shall be glad if you will point out the difference at once.*



# Terms of Membership.

## MEMBERSHIP.

The Rules relating to the admission of members are:—

No. 6.—The society (that is, the Wholesale) shall consist of such co-operative societies, registered or deemed to be registered under the Industrial and Provident Societies Act, 1876, or Companies Act, 1862–67, as have been admitted by the committee, and each admission must be entered in the minute book of the society. Every application for shares must be sanctioned by a resolution of a general meeting of any society or company making such. The application must be made on the printed form supplied, and duly attested by the signatures of the president, secretary, and three members thereof, and stamped with such society's seal. Every society or company making an application for shares shall state the number of its members, and take not less than one share for each member, and shall increase the number annually as its members increase in accordance with its last return to the Registrar; but no member other than a society registered under the Industrial and Provident Societies Act, 1876, shall hold an interest in the funds exceeding £200.

No. 7.—The capital of the society shall be raised in shares of twenty shillings each. Every member on admission shall pay the sum of not less than one shilling on each share taken up, and the unpaid portion of the shares may be paid up by dividends and interest; but any member may pay up shares in full or part at any time.

### APPLICATION FORM.

*Whereas, by a resolution of the ..... Co-operative Society Limited, passed at a general meeting held on the....day of....., it was resolved to take up.....shares (being one share of twenty shillings for each member), said shares being transferable, in the Scottish Co-operative Wholesale Society Limited, and to accept the same on the terms and conditions specified in the Rules. Executed under the seal of the society on the....day of..... Attested by*

..... }  
 ..... } *Three Members.*  
 .....

## BENEFITS DERIVED FROM MEMBERSHIP.

(a) The liability of the member is limited, each member being only responsible for the value of the shares held.

(b) Members receive double the rate of dividend on purchases paid to non-members.

(c) Share capital is paid 5 per cent per annum.

(d) Members have a share in the management of the Wholesale in proportion to the amount of goods bought, as each society, besides one vote in right of membership, is allowed an extra vote for each £1,000 worth of goods bought.

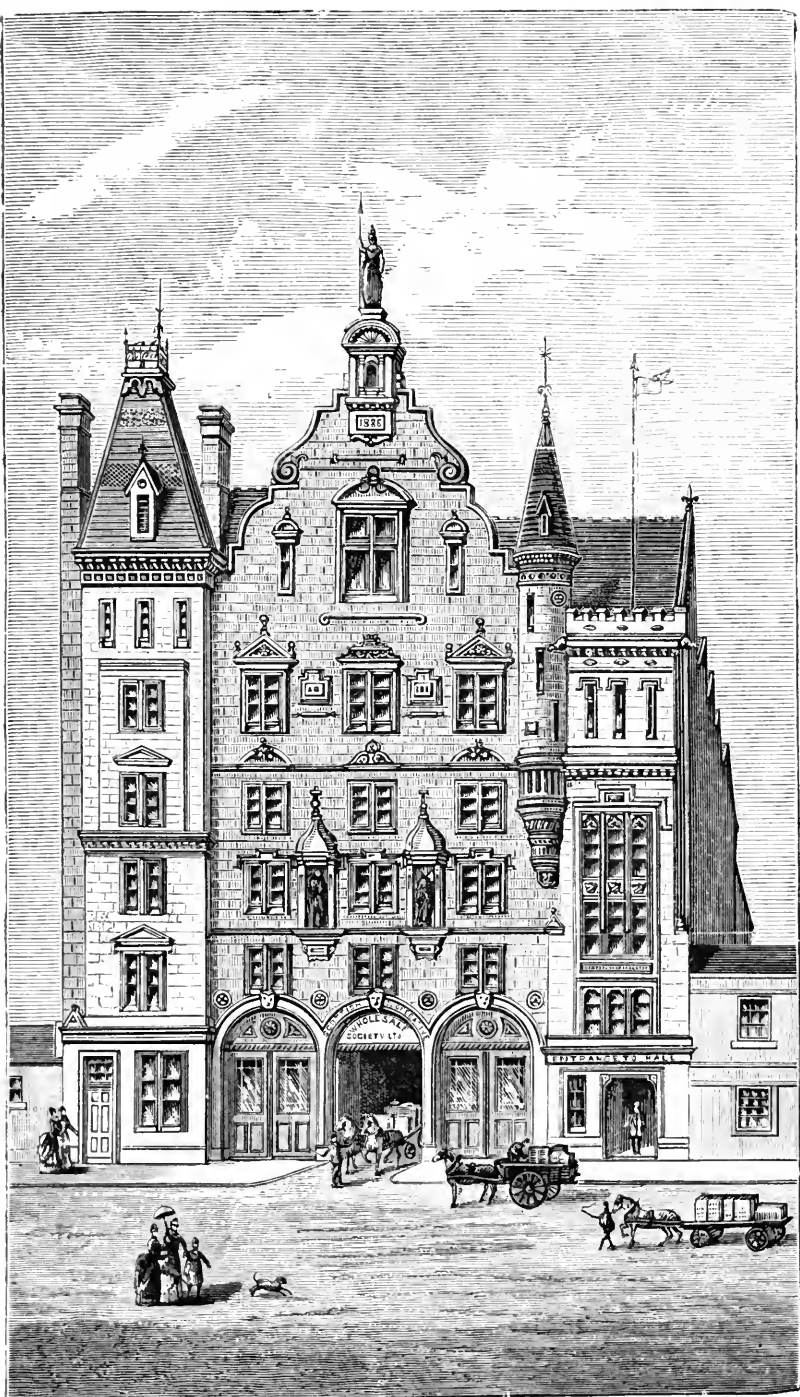
These advantages, added to the special benefits secured by the leading position of the Wholesale, will, we trust, induce societies as yet non-members to carefully reconsider the question, and take the necessary steps to secure to their members the full benefits of co-operative distribution.

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## CORRESPONDENCE.

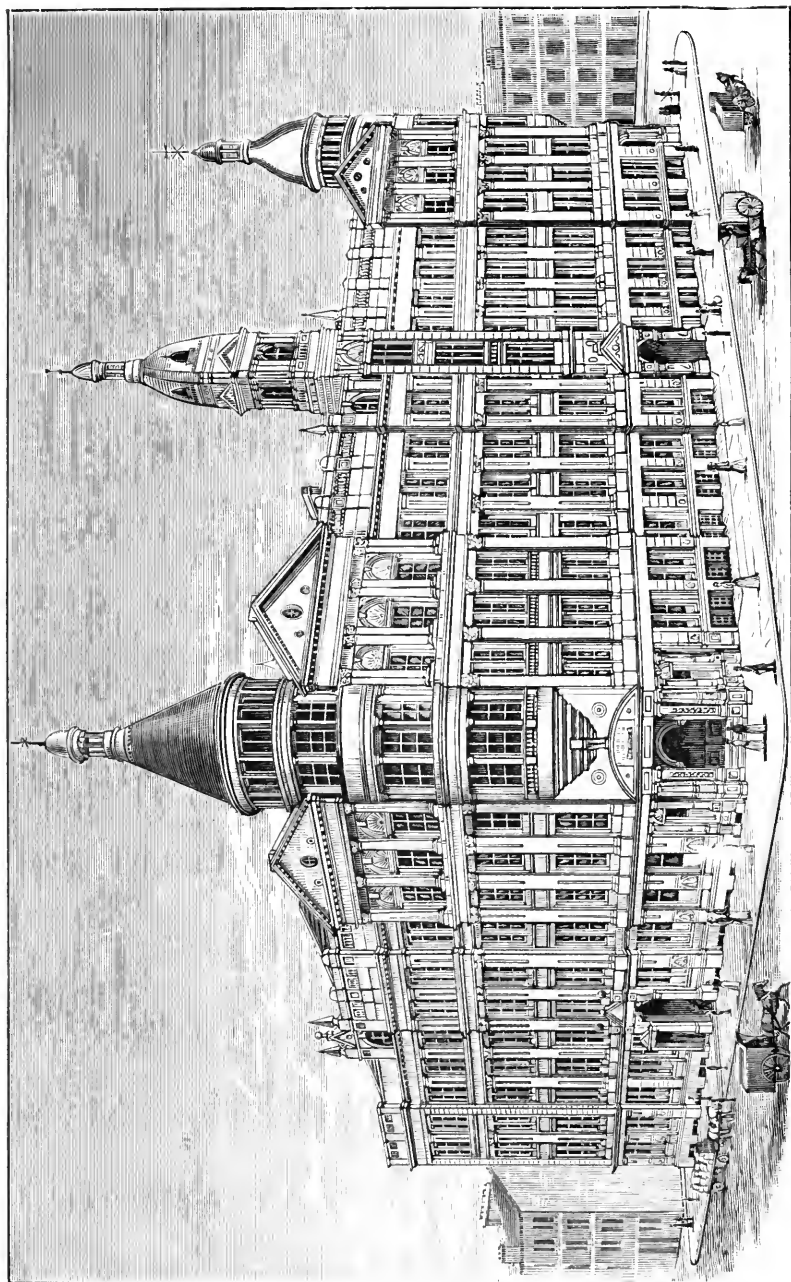
All letters must be addressed to the society, and not to individuals. Addressed envelopes are supplied at cost price. Separate slips ought to be used for the different departments—the Accountant's, Grocery and Provision, Drapery, Boot and Shoe, Furniture. The slips can all be enclosed in the one envelope. Attention to this simple rule will greatly facilitate the despatch of goods and ensure promptitude in answering inquiries; it will also aid in the classification of the letters for reference in any case of irregularity or dispute.

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GLASGOW GROCERY AND PROVISION WAREHOUSE AND HALL,  
CLARENCE STREET.—See page 132.





GLASGOW DRAPERY, BOOT AND SHOE, AND FURNITURE WAREHOUSES, DUNDAS STREET.

*See pages 138 to 143.*



# Cash Remittance.

Cheques must be made payable to the Society. If remitted through the UNION BANK OF SCOTLAND LIMITED, the usual commission charged will be saved.

## LIST OF BRANCHES OF THE UNION BANK OF SCOTLAND LIMITED.

HEAD OFFICES:—GLASGOW, INGRAM STREET; EDINBURGH, GEORGE STREET.

LONDON OFFICE:—62, CORNHILL, E.C.

### Branches:

Aberdeen.	Edinburgh, Morningside.	Lerwick.
Aberdeen, George Street.	„ Newington.	Leslie.
„ West End.	„ Norton Park.	Lochgelly, Fifeshire.
Aberfeldy.	„ S. Morningside	Lochgilphhead.
Aberlour, Strathspey.	(sub to Morningside).	Macduff.
Alloa.	Edzell.	Maryhill.
Alva.	Elgin.	Maybole.
Auchterarder.	Ellon.	Mearns (open on Tues-
Auchtermuchty.	Errol.	days and Fridays—sub
Ayr.	Fochabers.	to Barrhead).
Ballater.	Forfar.	Millport.
Banchory.	Fraserburg.	Moffat.
Banff.	Galston.	Moniaive.
Barrhead.	Gatehouse.	New Pitsligo.
Barrhill.	Girvan.	Paisley.
Bathgate.	Glasgow, Anderston.	Partick.
Beith.	„ 174, Argyle St.	Perth.
Blair-Athole (sub to Pit-	„ Bridgeton Cross.	Peterhead.
lochrie).	„ Cowcaddens.	Pitlochrie.
Blairgowrie.	„ Hillhead.	Port-Glasgow.
Braemar.	„ Kinning Park.	Portsoy.
Brechin.	„ St. Vincent St.	Renfrew.
Bridge of Allan.	„ Tradeston.	Rosehearty.
Buckie, Banffshire.	„ Trongate.	St. Margaret's Hope,
Castle-Douglas.	Gourock.	Orkney.
Coatbridge.	Govan.	Scalloway, Shetland (open
Coupar-Angus.	Greenock.	on Tuesdays and Fri-
Crieff.	Hamilton.	days—sub to Lerwick).
Cullen.	Helensburgh.	Shawlands, Glasgow.
Dalbeattie.	Huntly.	Stewarton.
Dalry, Ayrshire (open on	Inverary.	Stirling.
Thursdays—sub to Beith)	Inverness.	Stonehouse (open on Mon-
Dalry, Galloway.	Inverurie.	days, Wednesdays, and
Darvel (sub to Galston).	Irvine.	Saturdays—sub to Lark-
Doune.	Johnstone.	hall).
Dumbarton.	Keith.	Stranraer.
Dumfries.	Killin.	Strathaven.
Dunblane.	Kilmarnock.	Stromness.
Dundee.	Kincardine.	Tarbert, Lochfine.
Dunkeld.	Kirkcaldy.	Tarland.
Dunning.	Kirkwall.	Thornhill.
Dunoon.	Kirriemuir.	Tillicoultry.
Edinburgh, Downie Place.	Ladybank.	Troon.
„ Forrest Road.	Largs.	Turiff.
„ Haymarket.	Larkhall.	Wick.
„ Hunter Square	Leith.	

*STATEMENT Showing the Progress of the Society from its Commencement in September, 1868, till date,  
with Comparisons of Sales, and other information.*

1st Quarter	Year or Quarter ending.	Number of Shares Subscribed— Societies.	Number of Shares Sub- scribed— Employés.	Capital: Includes Share, Loan, Reserve, and Insurance Funds.	Net Sales.	Gross Total.	Increase on Corresponding Quarter or previous Year.	Rate per Cent Inc.	Expenses.	Rate per £ on Sales.
1st Quarter	Dec. 7, 1868	..	..	£1,795	£9,697	£	£	..	£153	3·8
1st Year—52 wks	Dec. 5, 1869	..	..	5,174	81,094	90,791	..	..	1,055	3·0
2nd " 50 "	Nov. 19, 1870	..	..	12,542	105,249	196,041	24,155	29·7	1,549	3·5
3rd " 52 "	" 18, 1871	..	..	18,009	162,658	358,699	57,408	54·5	2,180	3·2
4th " 50 "	" 16, 1872	18,708	..	30,931	262,530	621,230	99,872	61·4	3,469	3·1
5th " 50 "	" 15, 1873	21,271	..	50,433	384,489	1,005,719	121,958	46·4	5,055	3·1
6th " 50 "	" 14, 1874	24,654	..	48,981	409,947	1,415,667	25,458	6·6	6,696	3·9
7th " 50 "	" 13, 1875	27,112	..	56,750	430,169	1,845,836	20,222	4·9	7,137	3·9
8th " 51 "	" 4, 1876	29,008	..	67,218	457,529	2,303,365	27,359	6·3	7,540	3·9
9th " 52 "	" 3, 1877	31,945	..	72,568	589,221	2,892,586	131,692	28·7	8,648	3·5
10th " 50 "	" 2, 1878	34,830	..	83,173	600,590	3,493,177	11,369	1·9	10,095	4·0
11th " 50 "	" 2, 1879	36,008	..	93,076	630,697	4,123,275	29,507	4·9	11,117	4·2
12th " 50 "	Oct 30, 1880	41,584	..	110,179	845,221	4,968,496	215,124	34·1	13,020	3·7
13th " 50 "	Nov 5, 1881	49,073	..	135,713	986,646	5,955,143	141,424	16·7	15,757	3·8
14th " 50 "	" 4, 1882	53,684	..	169,438	1,100,588	7,055,732	113,942	11·5	19,686	4·2
15th " 50 "	" 3, 1883	59,529	..	195,396	1,253,154	8,308,886	152,565	13·8	22,120	4·2
16th " 50 "	" 1, 1884	65,331	..	244,186	1,300,331	9,609,218	47,177	3·7	24,307	4·5
17th " 50 "	Oct. 31, 1885	70,066	..	288,945	1,438,220	11,047,438	137,888	10·6	27,314	4·5
18th " 60 "	Dec. 25, 1886	79,874	..	333,058	1,857,152	12,904,590	418,931	29·1	36,942	4·7
19th " 53 "	" 31, 1887	87,220	..	367,309	1,810,015	14,714,606	153,965	9·2	35,800	4·7
20th " 52 "	" 29, 1888	96,521	..	409,068	1,963,853	16,678,460	178,897	10·0	39,411	4·8
21st " 52 "	" 28, 1889	107,004	..	480,622	2,273,782	18,932,242	309,928	15·7	44,311	4·6
22nd " 52 "	" 27, 1890	117,664	..	575,322	2,475,501	21,427,843	201,819	8·8	49,641	4·8
23rd " 52 "	" 26, 1891	131,086	..	671,108	2,828,036	24,255,880	352,435	14·2	58,140	4·8
24th " 53 "	" 31, 1892	139,022	..	778,494	3,104,768	27,360,648	276,731	9·7	64,905	5·0
98th Quarter	April 1, 1893	142,653	1,400	833,930	740,997	28,101,646	28,683	3·7	16,952	5·5
99th " " "	July 1, 1893	145,895	2,175	821,541	797,452	28,899,499	39,515	5·2	17,810	5·4



*STATEMENT Showing the PROGRESS of the SOCIETY FROM ITS COMMENCEMENT in September, 1868, till date,  
with COMPARISONS of SALES, and other information.—Continued.*

1st Quarter...	Year or Quarter ending.	Net Profit.	Total Net Profit.	Aver- age Divi- dend.	RESERVE AND INSURANCE FUNDS.			DEPRECIATIONS ALLOWED ON BUILDINGS AND FIXTURES.	
					Added.	Withdrawn.	Total Amount.	Amount.	Total Amount.
					£48	£	£	£9	£
December...	December 7, 1868..	£48		d.					
1st Year—52 wks	December 5, 1869..	1,303	1,352	3½	63	..	112	129	138
2nd " 50 "	November 19, 1870..	2,418	3,770	4½	324	..	436	111	250
3rd " 52 "	" 18, 1871..	4,131	7,902	5½	578	..	1,014	205	455
4th " " "	" 16, 1872..	5,435	13,337	4½	471	..	1,485	346	801
5th " " "	" 15, 1873..	7,445	20,783	4½	355	141	1,700	657	1,439
6th " " "	" 14, 1874..	7,553	28,336	4½	1,049	104	2,644	784	2,243
7th " " "	" 13, 1875..	8,232	36,569	4	338	580	2,402	321	2,565
8th " " "	" 4, 1876..	8,836	45,405	4	791	672	2,522	452	3,017
9th " " "	" 3, 1877..	10,925	56,330	4	918	343	3,097	485	3,503
10th " " "	" 2, 1878..	11,968	68,298	4	721	269	3,549	1,155	4,659
11th " " "	" 2, 1879..	14,988	83,287	4½	2,215	160	5,606	1,336	5,995
12th " " "	October 30, 1880..	21,685	104,973	6½	3,131	336	8,404	1,086	7,082
13th " 53 "	November 5, 1881..	23,981	128,954	6	3,086	2,694	8,796	1,653	8,735
14th " 52 "	" 4, 1882..	23,219	152,171	5½	3,824	334	12,286	1,688	10,424
15th " " "	" 3, 1883..	28,365	180,540	5½	3,801	1,530	14,557	2,420	12,484
16th " " "	" 1, 1884..	29,434	209,974	5½	4,428	1,525	17,471	2,039	14,881
17th " " "	October 31, 1885..	39,641	249,616	6½	4,393	610	21,254	3,475	18,359
18th " 60 "	December 25, 1886..	50,398	300,014	6½	5,528	1,315	25,566	2,980	21,340
19th " 53 "	" 31, 1887..	47,278	347,293	6½	8,471	1,382	32,651	3,019	24,360
20th " 52 "	" 29, 1888..	53,538	400,832	6½	7,615	3,392	36,874	8,170	32,530
21st " " "	" 28, 1889..	61,756	462,588	6½	10,241	2,941	44,177	6,284	38,815
22nd " " "	" 27, 1890..	76,545	539,134	7	10,636	1,931	52,882	6,843	45,659
23rd " " "	" 26, 1891..	89,090	628,225	6½	12,326	3,362	61,846	11,433	57,092
24th " 53 "	" 23, 1892..	96,027	724,252	6½	17,353	5,052	74,147	10,219	67,311
98th Quarter	April 1, 1893..	24,266	748,519	7	3,770	1,026	76,892	4,866	72,178
99th " " "	July 1, 1893..	24,704	773,223	7	4,068	964	79,997	3,019	75,228

## GROCERY DEPARTMENT, GLASGOW.

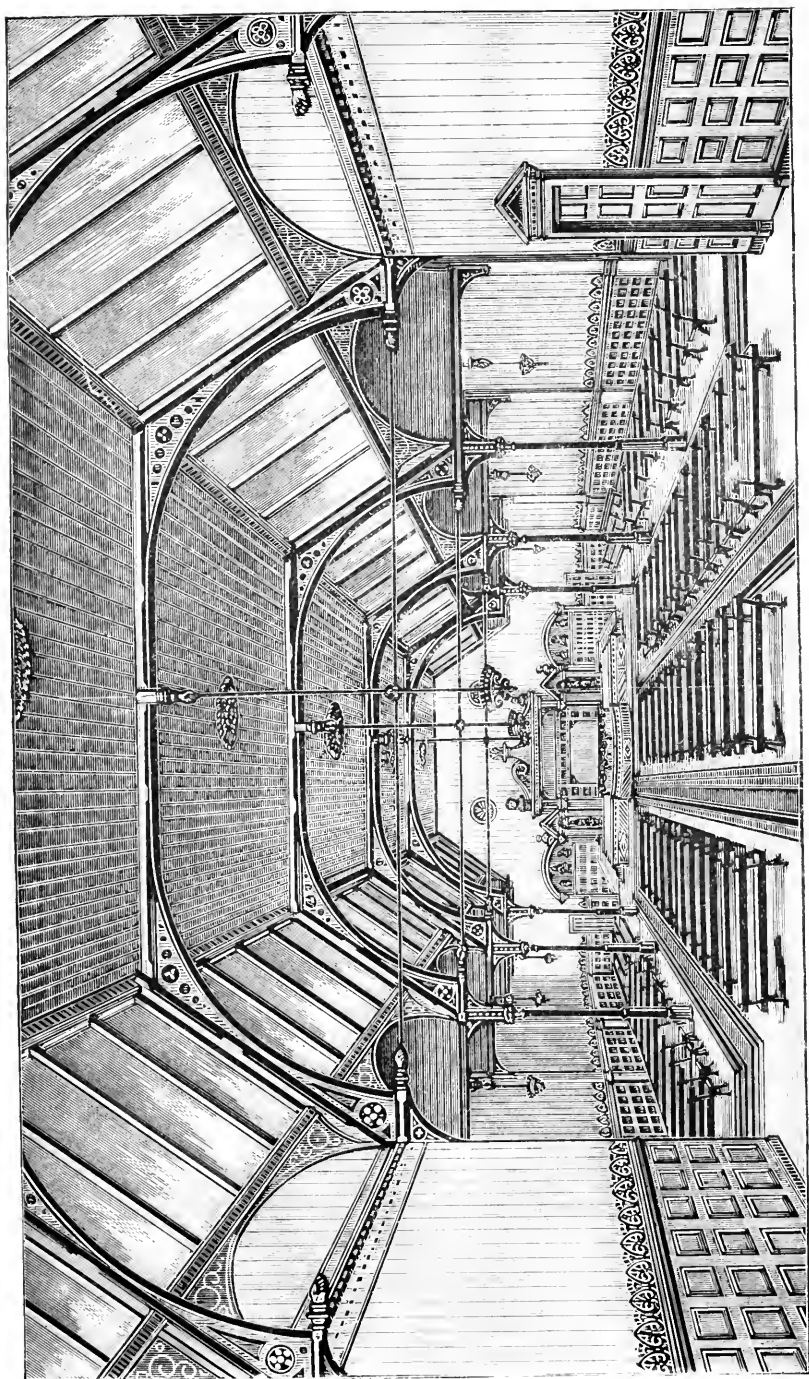
## YEARLY STATEMENT. SALES, EXPENSES, AND NET PROFIT.

NET SALES.									
		Drapery and Boots.		Bundee.		Kilmarnock.		Grocery, Glasgow.	
		£	s. d.	£	s. d.	£	s. d.	£	s. d.
Quarter ending	Dec. 7, 1868.	449,357	15 1	21,507	10 0	12,982	1 4	16,972	604 15 7
53 weeks	" 5, 1869.	449,357	15 1	21,507	10 0	12,982	1 4	16,972	604 15 7
50 "	" 9, 1870.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 18, 1871.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	" 16, 1872.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 15, 1873.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	" 14, 1874.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 13, 1875.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
51 "	" 4, 1876.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 3, 1877.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	" 2, 1878.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 2, 1879.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	Oct. 30, 1880.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	Nov. 5, 1881.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
6 months	" May 6, 1882.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 weeks	Nov. 4, 1882.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 3, 1883.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 1, 1884.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	Oct. 31, 1885.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
60 "	Dec. 25, 1886.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	" 31, 1887.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 28, 1888.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 27, 1889.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 26, 1890.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	" 31, 1891.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
13 "	April 31, 1893.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
13 "	July 1, 1893.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
Totals.	.....	449,357	15 1	21,507	10 0	12,982	1 4	16,972	604 15 7

## NET SALES.

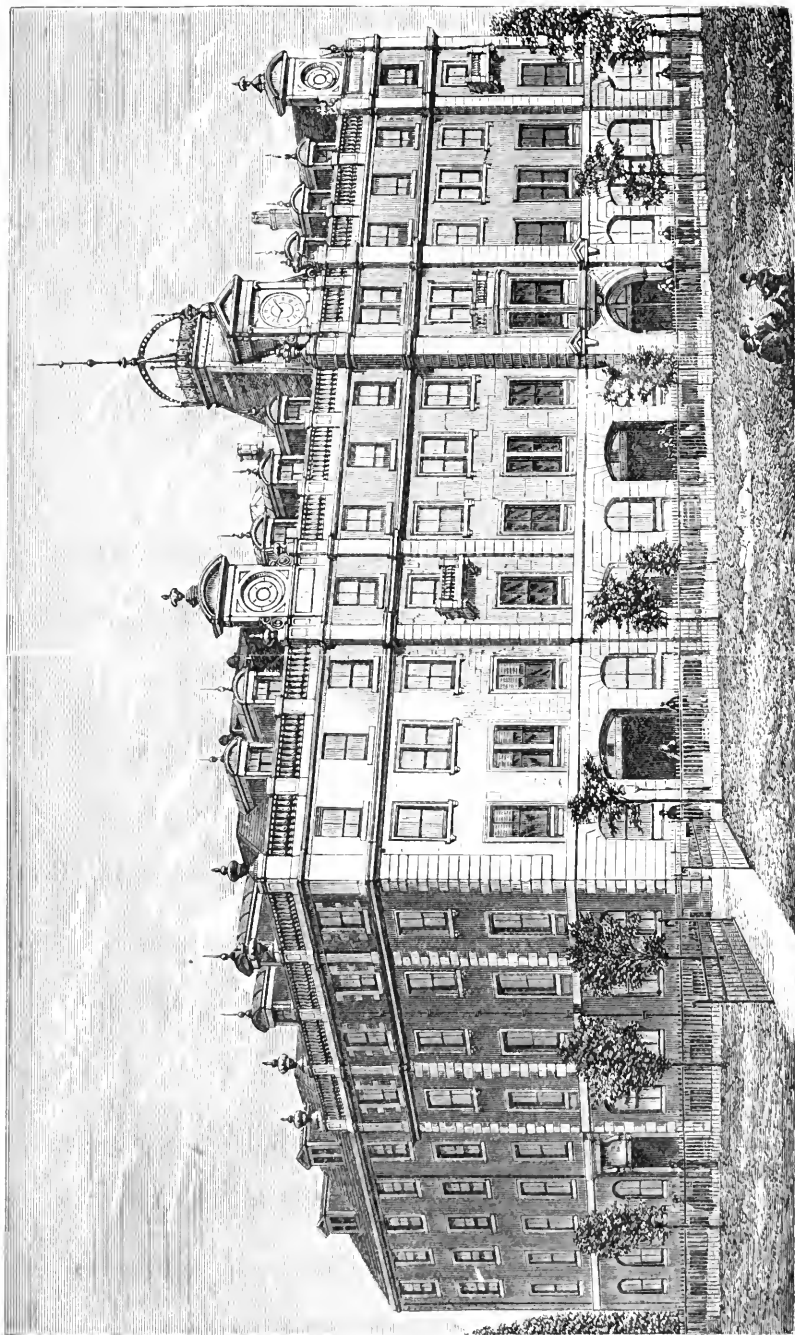
## GROCERY, EXPENSES, AND NET PROFIT.

		Drapery and Boots.		Bundee.		Kilmarnock.		Grocery, Glasgow.		Total.		Expenses.		Rate per £ of Sales.		Net Profit.		Rate per £ of Sales.		Stocks.	
		£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	d.	s. d.	£	s. d.	d.	s. d.	£	s. d.
Quarter ending	Dec. 7, 1868.	449,357	15 1	21,507	10 0	12,982	1 4	16,972	604 15 7	17,456	492 2 0	208,685	5 3	36	388,740	10 8	53	36	388,740	10 8	53
53 weeks	" 5, 1869.	449,357	15 1	21,507	10 0	12,982	1 4	16,972	604 15 7	17,456	492 2 0	208,685	5 3	36	388,740	10 8	53	36	388,740	10 8	53
50 "	" 9, 1870.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 18, 1871.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	" 16, 1872.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 15, 1873.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	" 14, 1874.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 13, 1875.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
51 "	" 4, 1876.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 3, 1877.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	" 2, 1878.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 2, 1879.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	Oct. 30, 1880.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	Nov. 5, 1881.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
6 months	" May 6, 1882.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 weeks	Nov. 4, 1882.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 3, 1883.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 1, 1884.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	Oct. 31, 1885.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
60 "	Dec. 25, 1886.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	" 31, 1887.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 28, 1888.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 27, 1889.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
52 "	" 26, 1890.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
53 "	" 31, 1891.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
13 "	April 31, 1893.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
13 "	July 1, 1893.	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2	50,654	11 2
Totals.	.....	449,357	15 1	21,507	10 0	12,982	1 4	16,972	604 15 7	17,456	492 2 0	208,685	5 3	36	388,740	10 8	53	36	388,740	10 8	53



INTERIOR OF CO-OPERATIVE HALL, CLARENCE STREET, GLASGOW.





LEITH GROCERY AND PROVISION WAREHOUSE, LINKS PLACE.

*See page 133.*



## GROCERY DEPARTMENT, LEITH.

## YEARLY STATEMENT, SHOWING SALES, EXPENSES, AND NET PROFIT.

	Net Sales.		Expenses.		Rate per £ of Sales.		Net Profit.		Rate per £ of Sales.		Amount of Stock.	
	£	s. d.	£	s. d.	d.		£	s. d.	d.		£	
Year ending November 3, 1877	30,984	0 9	451	17 0	3·5		481	12 9	3·7		4,590	
" " 2, 1878	76,767	11 1	1,119	10 4	3·5		1,679	0 11	5·2		3,000	
" " 1, 1879	88,101	15 11	1,284	16 8	3·5		2,363	8 3	6·4		6,480	
" " October 30, 1880	145,764	0 3	2,140	6 2	3·5		3,777	4 2	6·2		8,410	
" " November 5, 1881—53	193,833	10 10	2,826	11 8	3·5		5,542	7 9	6·8		13,400	
" " 4, 1882—52	205,728	16 3	2,927	11 2	3·4		4,895	11 9	5·7		14,890	
" " 3, 1883	255,160	2 2	3,488	17 9	3·2		6,093	19 3	5·7		20,045	
" " 1, 1884	281,509	2 4	3,992	8 2	3·4		6,935	10 4	5·9		16,250	
" " 31, 1885	363,664	7 11	5,031	1 8	3·3		10,572	0 8	6·9		29,750	
" " December 25, 1886—60	496,240	13 8	7,160	19 5	3·4		12,452	11 4	6·0		24,000	
" " 31, 1887—53	496,673	11 8	7,256	5 4	3·5		13,217	13 3	6·3		12,420	
" " 29, 1888—52	536,600	10 6	7,971	7 4	3·5		14,112	13 9	6·3		31,080	
" " 28, 1889—52	584,617	12 1	8,381	3 1	3·4		13,525	12 9	5·5		35,750	
" " 27, 1890—52	602,908	9 5	8,371	5 10	3·3		15,031	4 6	5·9		34,600	
" " 26, 1891—52	693,179	13 10	9,825	7 8	3·4		18,421	11 10	6·4		42,820	
" " 31, 1892—53	737,663	6 4	10,317	18 1	3·3		17,767	8 10	5·7		41,050	
Quarter ending April 1, 1893—13	172,516	2 10	2,615	13 9	3·6		4,616	2 0	6·4		43,770	
" " 1, 1893—13	191,505	13 7	2,581	13 2	3·2		4,857	14 8	6·0		40,900	
Totals .....	6,153,419	1 5	87,744	14 3	3·4		156,343	8 9	6·1		....	

## QUARTERLY STATEMENT,

FROM DATE OF KEEPING

Quarter Ending		Net Sales.			Expenses.		
		£	s.	d.	£	s.	d.
August	5, 1882	6,594	0	5	190	15	1
November	4 1882	8,849	10	3	221	7	8
February	3, 1883	9,894	13	1	245	18	11
May	5, 1883	10,192	13	4	236	7	10
August	4, 1883	7,979	7	10	245	14	8
November	3, 1883	11,625	19	8	225	0	1
February	2, 1884	8,446	16	2	217	1	5
May	3, 1884	9,492	2	9	197	12	5
August	2, 1884	9,145	12	11	208	15	8
November	1, 1884	12,989	11		198	7	11
January	31, 1885	10,094	9	8	204	18	3
May	2, 1885	8,874	3	9	159	14	3
August	1, 1885	8,644	2	7	192	11	6
October	31, 1885	14,012	17	7	208	14	3
January	30, 1886	9,461	10	4	204	13	0
May	1, 1886	9,439	14	11	177	13	5
July	31, 1886	9,434	7	4	193	15	8
December	25, 1886	23,129	5	10	309	3	2
March	26, 1887	11,129	13	7	170	3	9
June	25, 1887	9,928	13	5	189	4	9
September	24, 1887	15,469	2	4	221	10	8
† December	31, 1887	16,152	2	11	245	9	8
March	31, 1888	11,715	9	7	179	9	8
June	30, 1888	13,539	14	3	202	10	10
September	29, 1888	13,946	14	7	218	14	2
December	29, 1888	15,162	13	11	229	9	1
March,	30 1889	10,597	0	5	178	4	0
June	29, 1889	11,538	7	6	216	13	3
September	28, 1889	14,378	11	7	224	18	1
December	28, 1889	17,926	18	8	233	2	5
March	29, 1890	12,361	8	6	194	12	5
June	28, 1890	13,618	4	4	275	0	3
September	27, 1890	14,223	6	2	199	8	3
December	27, 1890	16,807	11	3	246	2	10
March	28, 1891	14,162	9	0	222	13	6
June	27, 1891	14,804	7	6	274	11	7
September	26, 1891	16,299	14	11	264	15	11
December	26, 1891	22,168	2	4	327	1	2
March	26, 1892	16,745	1	7	276	11	9
June	25, 1892	15,327	12	8	315	14	3
September	24, 1892	17,342	12	1	335	16	11
† December	31, 1892	23,251	16	11	374	11	5
April	1, 1893	17,353	1	8	305	15	3
July	1, 1893	15,298	10	11	339	9	7
Totals		579,549	16	11	10,300	0	7

\* Twenty-one weeks. † Fourteen weeks.



## GROCERY DEPARTMENT, KILMARNOCK.

## A SEPARATE ACCOUNT.

Rate per £ of Sales.	Net Profit.			Rate per £ of Sales.	Stocks.
d.	£	s.	d.	d.	£
7.0	163	7	8	6.0	535
6.0	137	9	1	3.7	1,550
5.9	362	11	7	8.7	2,320
5.5	472	3	0	11.1	2,120
7.3	238	4	11	7.1	720
4.6	176	13	6	3.6	1,663
6.1	123	10	4	3.5	2,898
4.9	162	2	9	4.0	1,781
5.4	114	15	5	3.0	963
3.7	235	6	3	4.2	2,812
4.8	69	14	9	1.6	2,521
4.3	258	5	9	6.9	1,750
5.3	102	4	1	2.8	1,132
3.5	534	12	2	9.1	2,300
5.2	295	13	5	7.5	2,010
4.5	289	7	4	7.3	1,600
4.9	264	10	0	6.7	760
3.2	908	16	9	9.4	2,070
3.6	364	3	8	7.8	2,615
4.5	255	7	8	6.1	1,525
3.4	895	18	3	13.6	1,070
4.2	758	15	6	11.2	2,585
4.0	328	8	3	6.7	2,850
3.6	379	15	5	6.7	2,410
3.8	23	10	11	0.4	2,329
3.6	324	10	8	5.1	3,200
4.0	178	19	2	4.0	2,080
4.5	102	6	9	2.1	2,600
3.7	406	12	5	6.8	1,420
3.1	623	11	11	8.3	2,910
3.7	560	3	8	10.8	2,040
4.8	563	8	7	9.9	1,050
3.3	550	8	9	9.2	190
3.5	972	15	1	13.8	2,400
3.7	685	3	1	11.6	1,480
4.4	609	2	3	9.8	2,000
3.8	620	3	7	9.1	1,170
3.5	875	2	0	9.5	2,225
3.9	1,070	6	5	15.3	2,400
4.9	786	7	3	12.3	2 440
4.6	358	10	10	4.9	2,070
3.8	897	7	7	9.2	2,000
4.2	658	4	6	9.1	2,070
5.3	298	14	7	4.6	1,985
4.2	19,047	7	6	7.9	....

# QUARTERLY STATEMENT, FROM DATE OF KEEPING

Quarter Ending		Net Sales.			Expenses.		
		£	s.	d.	£	s.	d.
August	5, 1882	6,328	4	0	237	2	11
November	4, 1882	7,180	12	3	207	17	9
February	3, 1883	8,513	10	1	217	6	4
May	5, 1883	8,583	16	3	226	13	4
August	4, 1883	9,050	6	4	245	1	3
November	3, 1883	8,533	5	8	218	11	2
February	2, 1884	9,278	1	10	235	12	9
May	3, 1884	10,943	14	6	252	16	9
August	2, 1884	12,648	2	11	262	11	10
November	1, 1884	13,776	3	6	275	12	6
January	31, 1885	12,080	7	2	291	8	8
May	2, 1885	13,424	7	0	242	12	6
August	1, 1885	14,930	3	3	251	12	1
October	31, 1885	15,685	3	4	271	7	11
January	30, 1886	12,248	16	9	248	12	8
May	1, 1886	13,616	12	9	283	8	7
July	31, 1886	14,912	1	10	265	7	11
* December	25, 1886	22,975	17	8	397	17	9
March	26, 1887	13,916	4	6	244	6	5
June	25, 1887	13,810	2	11	241	9	2
September	24, 1887	15,064	15	6	265	8	7
† December	31, 1887	16,231	4	0	281	14	4
March	31, 1888	12,205	12	7	246	11	4
June	30, 1888	14,865	19	7	262	6	11
September	29, 1888	14,857	13	3	281	9	7
December	29, 1888	15,323	1	0	284	8	1
March	30, 1889	16,415	11	3	256	13	3
June	29, 1889	20,090	11	2	286	1	0
September	28, 1889	19,022	12	6	295	18	4
December	28, 1889	17,987	11	8	284	1	6
March	29, 1890	15,713	6	7	274	19	11
June	28, 1890	16,324	16	0	288	16	9
September	27, 1890	18,593	3	6	321	13	11
December	27, 1890	16,411	8	5	303	8	0
March	28, 1891	19,284	18	2	322	10	5
June	27, 1891	19,673	16	4	313	17	9
September	26, 1891	21,683	3	1	310	16	4
December	26, 1891	19,207	14	2	296	1	6
March	26, 1892	21,503	7	8	290	18	2
June	25, 1892	22,609	4	1	314	3	2
September	24, 1892	24,100	0	1	354	16	8
† December	31, 1892	23,459	3	2	314	3	2
April	1, 1893	21,282	4	1	299	13	0
July	1, 1893	24,031	11	5	313	9	1
Totals		688,405	3	9	12,181	11	0

\* Twenty-one weeks.

† Fourteen weeks.

## GROCERY DEPARTMENT, DUNDEE.

## A SEPARATE ACCOUNT.

Rate per £ of Sales.	Net Profit.	Rate per £ of Sales.	Net Loss.	Rate per £ of Sales.	Stocks.
d.	£ s. d.	d.	£ s. d.	d.	£
8·8	....	..	126 19 9	4·8	1,205
7·0	....	..	98 12 7	3·3	1,474
6·1	67 12 4	1·8	....	..	1,040
6·3	96 1 7	2·7	....	..	1,080
6·5	5 15 3	0·1	....	..	1,923
6·1	71 2 5	2·0	....	..	2,455
6·1	88 14 11	2·2	...	..	2,250
5·6	181 7 10	4·0	....	..	1,975
5·0	260 9 7	4·9	....	..	2,950
4·8	73 16 8	1·3	....	..	2,690
5·8	111 1 3	2·2	....	..	1,080
4·3	189 3 2	3·4	....	..	1,950
4·0	359 16 4	5·8	....	..	2,940
4·2	348 15 2	5·3	....	..	2,890
4·8	238 13 5	4·6	....	..	1,300
5·0	86 11 2	1·5	....	..	2,670
4·2	205 17 7	3·3	..	..	3,250
4·1	348 8 3	3·7	....	..	2,600
4·2	163 5 0	2·8	....	..	1,885
4·2	210 10 3	3·6	....	..	3,050
4·2	212 6 11	3·4	....	..	3,020
4·2	279 17 11	4 2	....	..	3,210
4·8	286 9 8	5·6	....	..	2,770
4·2	154 19 5	2·5	....	..	3,740
4·5	253 8 2	4·1	....	..	5,370
4·4	321 3 11	5·0	....	..	2,710
3·7	245 2 6	3·5	....	..	3,230
3·4	618 7 4	7·3	....	..	5,940
3·7	60 4 11	0·7	....	..	4,590
3·7	206 9 7	2·7	....	..	4,150
4 2	244 7 7	3·7	....	..	3,420
4·2	244 8 2	3·6	....	..	3,590
4·1	290 8 8	3·7	....	..	5,390
4·4	364 2 5	5·3	....	..	4,070
4·0	282 12 10	3·5	...	..	4,070
3·8	309 10 10	3·7	....	..	5,200
3·4	458 0 11	5·0	....	..	4,360
3·7	338 8 8	4·2	....	..	3,550
3·2	390 5 0	4·3	....	..	3,500
3·3	251 1 8	2·6	....	..	4,660
3·5	464 9 11	4 7	....	..	7,940
3 2	553 0 11	5·6	....	..	3,990
3·3	453 10 4	5·1	....	..	2,970
3·1	606 6 8	6 0	....	..	5,280
4·2	10,996 7 1	..	225 12 4	..	....
	225 12 4	..			
	10,770 14 9	3·7			

## QUARTERLY STATEMENT,

FROM DATE OF KEEPING

Quarter Ending	NET SALES.								
	Boots.			Furniture.			Drapery.		
	£	s.	d.	£	s.	d.	£	s.	d.
August 5, 1882.....	8,351	15	0	2,693	6	11	21,144	6	11
November 4, 1882.....	9,267	11	10	2,057	1	11	25,587	12	9
February 3, 1883.....	7,520	4	4	2,280	17	3	22,301	14	3
May 5, 1883.....	8,159	0	7	1,904	14	4	25,682	6	9
August 4, 1883.....	9,368	12	4	3,045	1	9	23,937	10	11
November 3, 1883.....	9,658	4	3	2,518	11	10	30,562	12	8
February 2, 1884.....	8,944	16	1	2,994	17	9	26,445	3	8
May 3, 1884.....	9,782	13	2	2,307	11	1	30,463	14	9
August 2, 1884.....	10,981	0	10	4,595	4	10	28,337	2	6
November 1, 1884.....	10 884	13	3	2,887	1	9	34,034	16	0
January 31, 1885.....	....			....			30,267	3	3
May 2, 1885.....	....			....			37,153	15	9
August 1, 1885.....	....			....			33,578	12	7
October 31, 1885.....	....			....			39,994	14	4
January 30, 1886.....	....			....			33,029	17	3
May 1, 1886.....	....			....			44,570	7	11
July 31, 1886.....	....			....			42,129	5	5
* December 25, 1886.....	....			....			75,835	10	10
March 26, 1887.....	....			....			40,647	13	5
June 25, 1887.....	....			....			50,432	4	9
September 24, 1887.....	....			....			47,697	15	3
† December 31, 1887.....	....			....			55,420	13	10
March 31, 1888.....	....			....			48,630	9	0
June 30, 1888.....	....			....			56,216	13	4
September 29, 1888.....	....			....			57,138	9	11
December 29, 1888.....	....			....			56,928	16	6
March 30, 1889.....	....			....			55,006	12	0
June 29, 1889.....	....			....			64,163	10	4
September 28, 1889.....	....			....			67,747	18	7
December 28, 1889.....	....			....			74,256	1	8
March 29, 1890.....	....			....			71,632	4	4
June 28, 1890.....	....			....			81,166	2	4
September 27, 1890.....	....			....			82,909	0	0
December 27, 1890.....	....			....			90,353	10	7
March 28, 1891.....	....			....			75,469	2	3
June 27, 1891.....	....			....			87,041	2	1
September 26, 1891.....	....			....			87,043	18	2
December 26, 1891.....	....			....			100,331	15	2
March 26, 1892.....	....			....			90,987	12	0
June 25, 1892.....	....			....			100,312	14	3
September 24, 1892.....	....			....			97,495	2	3
† December 31, 1892.....	....			....			112,572	7	1
April 1, 1893.....	....			....			92,117	12	4
July 1, 1893.....	....			....			94,045	12	6
Totals.....	....			....			2,542,821	13	5

\* Twenty-one weeks.

† Fourteen weeks.

# DRAPERY DEPARTMENT.

## A SEPARATE ACCOUNT.

NET SALES.			Expenses.			Rate per £ of Sales.			Net Profit.			Rate per £ of Sales.			Stocks.		
Total.																	
£	s.	d.	£	s.	d.	£	£	s.	d.	£	£						
32,189	8	10	1,123	9	9	8.4	1,171	8	2	8.7	28,560						
36,912	6	6	1,356	1	2	8.8	1,308	6	6	8.7	34,030						
32,102	15	10	1,409	11	3	10.5	967	14	0	7.2	33,260						
35,746	1	8	1,438	12	11	9.6	1,090	8	2	7.3	31,231						
36,351	5	0	1,447	8	1	9.5	1,284	12	4	8.5	31,253						
42,739	8	9	1,534	9	3	8.6	1,807	4	8	10.1	32,281						
38,384	17	6	1,588	18	8	9.9	1,605	11	5	10.0	33,192						
42,553	19	0	1,666	5	8	9.4	1,591	16	7	9.0	36,065						
43,913	8	2	1,731	9	9	9.4	1,717	4	10	9.3	35,784						
47,806	11	0	1,827	15	5	9.1	1,899	14	5	9.5	39,661						
30,267	3	3	1,290	0	9	10.2	1,319	11	1	10.1	31,084						
37,153	15	9	1,414	15	11	9.1	1,492	17	7	9.6	32,340						
33,578	12	7	1,438	19	0	10.2	1,211	0	11	8.7	31,020						
39,994	14	4	1,547	6	10	9.2	1,847	0	5	11.0	35,990						
33,029	17	3	1,554	9	2	11.2	1,216	7	10	9.0	33,150						
44,570	17	11	1,641	9	6	8.8	1,709	19	3	9.2	36,340						
42,129	5	5	1,705	8	3	9.7	1,801	11	5	10.3	40,100						
75,835	10	10	3,362	6	4	10.6	3,983	5	11	12.6	45,740						
40,647	13	5	2,028	12	8	11.9	1,248	2	8	7.3	47,670						
50,432	4	9	2,081	15	1	9.9	2,185	17	1	10.4	42,170						
47,697	15	3	2,065	14	10	10.3	2,234	6	10	11.2	45,870						
55,420	13	10	2,294	1	9	10.0	2,487	10	2	10.7	41,400						
48,630	9	0	2,176	17	7	10.7	1,661	14	11	8.2	48,645						
56,216	13	4	2,257	18	4	9.6	2,175	16	9	9.2	43,240						
57,138	9	11	2,324	4	0	9.7	2,186	15	11	9.2	50,050						
56,928	16	6	2,486	11	6	10.4	2,057	16	3	8.6	47,990						
55,006	13	0	2,493	3	11	10.8	2,294	3	2	10.0	54,600						
64,163	10	4	2,645	6	9	9.9	3,167	18	6	11.8	50,900						
67,747	18	7	2,776	1	7	9.8	2,707	18	0	9.5	64,600						
74,256	1	8	2,887	18	9	9.3	3,230	4	0	10.4	58,800						
71,632	4	4	2,997	12	3	10.0	3,297	1	4	11.0	72,080						
81,166	2	4	3,306	17	9	9.7	3,416	9	5	10.1	62,200						
82,909	0	0	3,597	19	6	10.4	3,400	5	8	9.8	74,620						
90,353	10	7	3,709	0	1	9.8	4,456	19	3	11.8	64,000						
75,469	2	3	3,915	7	4	12.4	2,738	0	2	8.7	78,000						
87,041	2	1	4,101	15	7	11.3	3,088	16	11	8.5	70,100						
87,043	18	2	4,030	16	4	11.1	3,269	6	3	9.0	80,980						
100,331	15	2	4,091	11	4	9.7	4,716	18	9	11.2	69,970						
90,987	12	0	4,312	4	7	11.3	3,410	19	8	9.0	84,400						
100,312	14	3	4,375	13	0	10.4	4,331	15	8	10.3	77,810						
97,495	2	3	4,541	0	1	11.1	4,141	16	5	10.2	85,680						
112,572	7	1	4,838	11	9	10.3	5,132	1	9	10.9	79,420						
92,117	12	4	4,708	2	4	12.2	2,895	2	10	7.5	90,050						
94,045	12	6	4,793	14	5	12.2	3,645	10	11	9.3	85,269						
2,663,024	14	6	114,917	10	9	10.3	108,605	4	9	9.8	....						

QUARTERLY STATEMENT,  
FROM DATE OF KEEPING

	Net Sales.			Expenses.		
	£	s.	d.	£	s.	d.
Quarter ending January 31, 1885..	10,188	11	5	290	18	9
"    "    May 2, 1885..	12,549	19	5	353	2	4
"    "    August 1, 1885..	16,185	10	11	429	16	10
"    "    October 31, 1885..	16,542	18	4	529	0	6
"    "    January 30, 1886..	14,120	7	6	549	9	11
"    "    May 1, 1886..	16,190	5	3	556	12	0
"    "    July 31, 1886..	16,467	16	11	538	0	6
"    "    *December 25, 1886..	28,856	18	8	980	7	10
"    "    March 25, 1887..	14,242	19	10	602	18	11
"    "    June 25, 1887..	18,416	14	3	602	10	3
"    "    September 24, 1887..	17,259	16	10	598	15	6
"    "    †December 31, 1887..	20,704	14	9	736	4	10
"    "    March 31, 1888..	16,373	12	5	669	10	7
"    "    June 30, 1888..	19,721	3	3	652	6	7
"    "    September 29, 1888..	19,657	10	9	705	7	2
"    "    December 29, 1888..	22,183	2	7	781	13	8
"    "    March 30, 1889..	18,000	17	5	751	17	11
"    "    June 29, 1889..	24,306	1	9	873	14	1
"    "    September 28, 1889..	22,671	17	3	872	5	2
"    "    December 28, 1889..	26,200	2	6	893	19	7
"    "    March 29, 1890..	22,593	13	8	900	17	4
"    "    June 28, 1890..	28,847	19	5	1,022	19	8
"    "    September 27, 1890..	29,285	17	2	929	3	8
"    "    December 27, 1890..	31,008	16	11	958	18	0
"    "    March 28, 1891..	27,090	17	3	988	0	7
"    "    June 27, 1891..	34,702	19	11	1,040	19	8
"    "    September 26, 1891..	33,273	16	8	1,019	3	9
"    "    December 26, 1891..	37,424	1	0	1,097	15	8
"    "    March 26, 1892..	29,028	13	5	1,088	15	7
"    "    June 25, 1892..	39,526	1	10	1,230	1	10
"    "    September 24, 1892..	35,601	10	8	1,200	1	5
"    "    †December 31, 1892..	42,902	19	10	1,387	11	9
"    "    April 1, 1893..	32,874	3	1	1,352	1	5
"    "    July 1, 1893..	43,534	17	11	1,742	5	2
Totals .....	838,537	10	9	28,927	8	5

\* Twenty-one weeks.

† Fourteen weeks.

# BOOT AND SHOE DEPARTMENT.

## A SEPARATE ACCOUNT.

Rate per £ of Sales.	Net Profit.	Rate per £ of Sales.	Stocks.
	£ s. d.		£
6·8	596 3 8	14·0	5,990
6·7	608 18 9	11·6	5 530
6·4	777 3 8	11·5	9,400
7 6	499 12 2	7·2	11,520
9·3	460 5 6	7 8	11,200
8·3	560 19 3	8·3	11,130
7 9	585 11 5	8·5	11,490
8·2	942 0 7	7·8	15,500
10·1	256 19 6	4·3	14,150
7·8	616 6 6	8·0	13,185
8·2	310 11 7	4·3	14,730
8·3	605 2 9	7 0	15,490
10·1	153 9 6	2·3	15,630
8·0	389 16 3	4·7	11,710
8·6	464 2 1	5·6	13,300
8·4	424 2 5	4·7	15,390
10·0	240 2 8	3·2	14,680
8·6	589 8 9	5·8	15,070
9·2	441 5 7	4·7	18,000
8·2	720 13 3	6·6	16,950
9·5	444 10 10	4·7	16,420
8·5	885 16 10	7·4	16,560
7·7	888 6 1	7·2	15,650
7·4	1,012 6 5	7·8	14,360
8·7	889 8 2	7·8	14,930
7·2	1,292 6 11	8·9	17,050
7·3	1,238 11 2	8·9	14,800
7·0	1,515 18 10	9·7	17,470
9·0	1,009 4 2	8·3	17,630
7 4	1,645 17 8	9·9	16,760
8·1	1,208 12 7	8·1	16,650
7·7	1,906 4 3	10·6	20 490
9·8	1,084 0 1	7 9	21,480
9·6	1,442 18 6	7 9	25,747
8·0	26,706 18 4	7·6	....

## QUARTERLY STATEMENT, FURNITURE

FROM DATE OF KEEPING

	Net Sales.			Expenses.		
	£	s.	d.	£	s.	d.
Quarter ending January 31, 1885..	3,022	18	2	210	11	11
„ „ May 2, 1885..	2,636	9	6	262	5	10
„ „ August 1, 1885..	7,200	12	9	392	6	7
„ „ October 31, 1885..	5,599	11	1	420	1	5
„ „ January 20, 1886..	6,744	8	11	445	7	4
„ „ May 1, 1886..	7,026	7	0	470	18	2
„ „ July 31, 1886..	9,621	1	11	500	9	6
„ „ *December 25, 1886..	13,157	12	1	914	4	7
„ „ March 25, 1887..	7,315	11	8	577	14	1
„ „ June 25, 1887..	11,033	17	4	590	17	11
„ „ September 24, 1887..	8,567	19	0	618	12	4
„ „ †December 31, 1887..	11,956	12	7	723	6	11
„ „ March 31, 1888..	8,295	17	1	667	6	7
„ „ June 30, 1888..	12,865	9	6	738	3	6
„ „ September 29, 1888..	9,876	13	4	780	1	6
„ „ December 29, 1888..	12,582	11	8	860	10	4
„ „ March 30, 1889..	9,970	0	8	814	4	1
„ „ June 29, 1889..	15,812	15	7	918	7	0
„ „ September 28, 1889..	12,451	19	0	905	16	2
„ „ December 28, 1889..	16,871	0	8	930	18	5
„ „ March 29, 1890..	14,418	6	7	926	4	4
„ „ June 28, 1890..	21,501	17	11	1,045	3	0
„ „ September 27, 1890..	18,076	15	11	1,103	5	1
„ „ December 27, 1890..	22,149	13	4	1,261	10	4
„ „ March 28, 1891..	15,095	13	8	1,287	17	7
„ „ June 27, 1891..	25,335	18	11	1,412	1	8
„ „ September 26, 1891..	19,759	6	0	1,384	18	2
„ „ December 26, 1891..	24,953	4	7	1,471	7	10
„ „ March 26, 1892..	18,157	8	11	1,492	1	11
„ „ June 25, 1892..	27,834	1	5	1,578	10	5
„ „ September 24, 1892..	20,853	9	11	1,527	8	3
„ „ †December 31, 1892..	27,476	19	0	1,740	6	7
„ „ April 1, 1893..	19,575	15	1	1,662	14	7
„ „ July 1, 1893..	28,271	11	10	1,870	18	4
Totals.....	496,069	12	7	32,506	12	3

\* Twenty-one weeks.

† Fourteen weeks.



## AND FURNISHING DEPARTMENT.

## A SEPARATE ACCOUNT.

Rate per £ of Sales.	Net Profit.	Rate per £ of Sales.	Stocks.
d.	£ s. d.	d.	£
16·7	81 13 3	6·4	3,500
23·8	†4 17 11	0·4	4,410
13·0	221 4 9	7·4	4,620
18·0	133 3 10	5·6	5,600
15·8	145 4 10	5·2	6,180
16·0	195 9 8	6·4	7,020
12·4	410 10 0	10·2	7,650
16·6	292 9 7	5·4	7,400
18·9	160 16 8	5·2	8,750
12·8	641 14 4	13·9	9,290
17·3	323 12 11	9·0	9,570
14·5	677 17 2	13·6	9,150
19·3	311 7 10	9·0	10,370
13·9	735 16 7	13·9	10,540
18·9	245 16 0	5·9	10,000
16·4	412 16 5	7·8	10,820
19·6	285 2 3	6·8	11,990
13·9	762 19 10	7·5	11,170
17·4	625 14 2	12·0	10,380
13·2	916 2 10	13·0	10,450
15·4	567 11 8	9·4	11,410
11·6	1,339 5 4	14·9	11,150
15·3	1,287 13 10	17·0	12,240
13·6	1,504 10 0	16·2	13,600
20·4	557 8 2	8·8	15,700
13·3	1,323 6 11	12·5	16,350
16·8	1,138 9 3	13·8	16,520
14·1	1,026 0 6	9·9	16,400
19·7	410 18 11	5·4	18,330
13·6	1,368 12 10	11·8	16,600
17·2	1,096 18 3	12·6	16,700
15·2	1,298 19 10	11·3	16,330
20·3	356 2 2	4·3	17,350
16·0	1,440 19 1	12·2	17,453
15·7	22,301 6 7	10·9	....

## PRODUCTIVE DEPARTMENT.

## QUARTERLY STATEMENT SHOWING

Quarter Ending		Transferred.			Production.			Expenses on Production.		
		£	s.	d.	£	s.	d.	£	s.	d.
November 4, 1882..		427	10	10	427	10	10	319	12	11
February 3, 1883..		542	7	3	542	7	3	386	2	6
May 5, 1883..		541	8	10	541	8	10	404	5	6
August 4, 1883		647	18	2	647	18	2	484	17	7
November 3, 1883..		537	13	10	537	13	10	357	13	9
February 2, 1884..		464	3	0	464	3	0	304	3	7
May 3, 1884..		587	6	0	587	6	0	435	16	7
August 2, 1884..		631	8	0	631	8	0	463	8	0
November 1, 1884		838	10	10	838	10	10	450	5	9
January 31, 1885..		661	1	6	661	1	6	426	4	10
May 2, 1885..		838	8	3	838	8	3	491	7	3
August 1, 1885..		947	8	5	947	8	5	569	11	6
October 31, 1885..		1,164	13	7	1,164	13	7	692	2	0
January 30, 1886..		1,128	2	2	1,128	2	2	742	7	1
May 1, 1886..		1,474	0	7	1,474	0	7	814	6	1
July 31, 1886..		1,511	2	1	1,511	2	1	869	4	8
*December 25, 1886..		2,139	13	9	2,139	13	9	1,420	12	6
March 26, 1887..		1,587	2	3	1,587	2	3	926	18	10
June 25, 1887..		2,265	11	8	2,265	11	8	1,351	1	8
September 24, 1887..		1,927	17	10	1,927	17	10	1,282	9	8
December 31, 1887..		2,298	14	10	1,965	1	1	1,286	17	8
March 31, 1888..		1,529	11	9	1,692	5	1	1,077	12	1
June 30, 1888..		2,212	9	9	2,227	2	1	1,335	15	10
September 29, 1888..		2,270	9	2	2,203	14	3	1,404	15	8
December 29, 1888		2,319	5	1	2,516	5	1	1,492	14	4
March 30, 1889..		1,892	6	4	1,784	6	5	1,210	6	10
June 29, 1889..		2,464	17	4	2,449	6	3	1,450	15	11
September 28, 1889..		1,865	7	0	1,932	14	0	1,258	6	5
December 28, 1889..		3,027	12	11	3,233	4	0	1,660	14	5
March 29, 1890..		2,624	6	1	6,446	19	3	1,703	14	3
June 28, 1890..		4,078	11	4				1,957	3	8
September 27, 1890..		3,208	11	1	7,691	2	10	1,936	15	4
December 27, 1890..		3,957	18	3				2,175	4	5
March 28, 1891..		2,249	16	9	6,012	16	5	1,666	3	10
June 27, 1891..		3,877	5	5				1,908	17	10
September 26, 1891..		2,507	17	0	6,743	18	1	1,833	12	2
December 26, 1891		4,482	8	3				1,878	19	3
March 26, 1892..		2,558	0	1	7,283	9	10	1,973	10	0
June 25, 1892..		4,886	4	6				2,212	16	0
September 24, 1892..		2,952	8	1	8,533	19	11	1,974	6	8
†December 31, 1892..		5,201	6	11				2,436	5	7
April 1, 1893..		3,429	12	9	8,263	11	8	2,182	7	8
July 1, 1893..		4,609	15	8				2,515	6	9
Totals .....		92,368	5	2	91,843	5	1	53,785	14	10

\* Twenty-one weeks.

† Fourteen weeks.

## TAILORING FACTORY.

## EXPENSES AND NET PROFIT.

Rate per Cent.	Net Profit on Production.	Rate per Cent.	Net Loss.	Rate per Cent.	Stocks.
	£ s. d.		£ s. d.		£
74·71	1 11 2	0·23	....	....	..
71·21	34 9 10	6·27	....	....	168
74·67	....	....	15 9 5	2·77	187
74·80	....	....	7 2 10	1·08	258
66·48	....	....	0 8 2	....	304
65·51	13 14 9	2·80	....	....	289
74·11	....	....	1 16 4	0·2	344
73·37	15 1 0	2·37	....	....	415
53·70	18 9 9	2·14	....	....	341
64·45	....	....	38 15 8	5·74	306
58·59	54 17 5	6·44	....	....	327
60·08	58 3 2	6·12	....	....	410
59·45	5 19 5	0·51	....	....	445
65·78	....	....	4 1 11	0·35	523
55·22	38 14 11	2·57	....	....	326
57·51	15 13 10	0·99	....	....	268
66·38	....	....	36 17 2	1·68	485
58·34	21 3 11	1·32	....	....	407
59·64	111 17 4	4·90	....	....	617
66·52	....	....	139 11 0	7·21	849
65·44	....	....	68 18 3	3·51	424
63·65	42 14 2	2·48	....	....	615
59·94	109 15 2	8·16	....	....	687
63·73	167 6 10	7·58	....	....	818
59·30	189 7 3	7·51	....	....	1,083
67·76	84 0 11	4·70	....	....	1,083
59·12	241 16 2	9·84	....	....	1,012
65·11	142 3 3	7·35	....	....	1,278
51·34	467 1 9	14·44	....	....	1,280
56·77	646 2 7	10·02	....	....	1,191
54·23	699 16 9	9·10	....	....	1,564
59·46	550 6 9	9·15	....	....	1,638
55·02	736 18 7	10·92	....	....	1,222
57·47	867 10 0	11·90	....	....	1,218
51·67	1,011 1 4	11·84	....	....	1,663
56·84	1,026 10 2	12·41	....	....	1,782
58·56	7,372 8 2	....	313 0 9	0·34	....
	313 0 9	....			
	7,059 7 5	7·68			

## PRODUCTIVE DEPARTMENT.

## QUARTERLY STATEMENT SHOWING

Quarter Ending		Transferred.			Production.			Expenses on Production.		
		£	s.	d.	£	s.	d.	£	s.	d.
November 4, 1882..		201	11	0	201	11	0	159	13	10
February 3, 1883..		207	9	10	207	9	10	176	16	1
May 5, 1883..		208	8	0	208	8	0	171	5	8
August 4, 1883..		168	1	11	168	1	11	147	14	11
November 3, 1883..		175	13	4	175	13	4	159	3	1
February 2, 1884..		225	16	1	225	16	1	188	4	5
May 3, 1884..		234	2	3	234	2	3	193	8	0
August 2, 1884..		178	18	8	178	18	8	161	13	5
November 1, 1884..		231	2	7	231	2	7	200	15	11
January 31, 1885..		294	9	10	294	9	10	244	0	8
May 2, 1885..		474	7	1	474	7	1	256	1	5
August 1, 1885..		303	19	5	303	19	5	182	7	11
October 31, 1885..		334	11	4	334	11	4	202	10	8
January 30, 1886..		355	4	8	355	4	8	216	10	6
May 1, 1886..		409	10	4	409	10	4	245	3	7
July 31, 1886..		422	4	4	422	4	4	252	13	2
December 25, 1886..		705	17	7	705	17	7	418	5	3
March 26, 1887..		391	17	6	391	17	6	248	3	1
June 25, 1887..		400	7	4	400	7	4	235	18	8
September 24, 1887..		343	6	10	343	6	10	228	16	4
December 31, 1887..		496	4	8	514	14	4	320	12	8
March 31, 1888..		517	4	1	510	6	9	314	13	9
June 30, 1888..		557	17	2	564	7	9	377	0	4
September 29, 1888..		605	11	11	606	7	8	410	5	2
December 29, 1888..		691	7	4	699	12	10	475	8	0
March 30, 1889..		765	6	11	753	8	2	443	10	7
June 29, 1889..		677	5	1	677	7	0	429	14	6
September 28, 1889..		650	4	0	643	7	8	406	11	7
December 28, 1889..		705	1	8	730	5	7	448	10	7
March 29, 1890..		674	5	11	1,357	11	9	409	13	6
June 28, 1890..		695	7	3				431	7	9
September 27, 1890..		614	9	2	1,495	2	10	431	0	2
December 27, 1890..		874	10	9				509	0	0
March 28, 1891..		608	3	7	1,687	17	8	475	0	10
June 27, 1891..		1,059	13	5				523	3	3
September 26, 1891..		566	17	11	1,666	15	3	471	3	6
December 26, 1891..		1,155	17	3				577	11	4
March 26, 1892..		637	4	9	1,570	7	10	490	16	11
June 25, 1892..		909	19	9				530	6	5
September 24, 1892..		631	17	2	1,862	13	4	503	18	5
December 31, 1892..		1,181	18	5				688	16	9
April 1, 1893..		880	18	5	1,816	19	3	573	14	8
July 1, 1893..		994	10	11				643	4	1
Totals .....		23,418	17	5	23,424	5	7	15,174	11	4

## SHIRT FACTORY.

## EXPENSES AND NET PROFIT.

Rate per Cent.	Net Profit on Production.	Rate per Cent.	Net Loss.	Rate per Cent.	Stocks.
	£ s. d.		£ s. d.		£
79-10	21 9 4	10-44	....	....	..
85-02	8 5 6	3-86	....	....	12
82-21	5 7 8	2-40	....	....	12
87-5	7 16 9	4 76	....	....	11
90-85	0 9 3	..	....	....	15
83-55	9 18 8	4-44	....	....	29
82-47	7 16 10	2 99	....	....	22
90-44	..	..	8 16 10	4-91	16
86-57	..	..	7 9 9	3-22	20
83-02	13 1 3	4-42	....	....	20
54-00	37 16 7	7-80	....	....	55
60-06	23 18 5	7-78	....	....	53
60-47	14 9 3	4-19	....	....	70
60-84	10 18 9	3-09	....	....	52
59-9	14 10 1	3-42	....	....	43
59-71	26 7 6	6 16	....	....	61
59-29	20 7 0	2-83	....	....	48
63-26	8 10 8	2-04	....	....	108
59-00	8 8 3	2-00	....	....	90
66-76	3 11 6	1-02	....	....	86
62-25	19 15 0	3-83	....	....	92
61-57	9 10 1	1-76	....	....	97
66-84	1 11 10	..	....	....	115
67-65	....	..	12 9 7	1-98	114
67-85	....	..	11 17 10	1-71	112
58-80	69 7 11	9-16	....	....	102
63-36	30 7 9	4-43	....	....	106
63-14	58 19 9	9-17	....	....	105
61-37	51 13 11	7-12	....	....	119
61-09	122 10 9	8-99	....	....	93
62-87	131 5 9	8-76	....	....	72
59-16	142 5 10	8-41	....	....	131
62-90	192 18 10	11-58	....	....	120
65-03	141 6 3	8-98	....	....	215
64-01	103 19 8	5-58	....	....	208
66-97	147 2 7	8 09	....	....	146
64-78	1,465 19 3	..	40 14 0	0-17	....
	40 14 0	..			
	1,425 5 3	6-08			

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.  
SLOP FACTORY.

Quarter Ending	Transferred.	Production.	Expenses.	Rate per Cent.	Net Profit.	Rate per Cent.	Stocks
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£
*December 27, 1890 ..	84 19 9	104 0 10	97 11 11	93·80	146 7 9	44·58	160
March 28, 1891 ..	508 13 4		424 10 9		95 4 1	7·18	192
June 27, 1891 ..	778 19 4	1,322 12 7	465 18 11				
September 26, 1891 ..	479 9 10		415 18 10				
December 26, 1891 ..	709 17 1	1,211 19 8	451 2 9	71·53	40 2 6	3·30	186
March 26, 1892 ..	567 2 11		429 12 7				
June 25, 1892 ..	747 17 8	1,272 2 11	465 3 2	70·28	68 11 9	5·34	126
September 24, 1892 ..	531 11 6		414 17 8				
†December 31, 1892 ..	845 8 9	1,358 1 6	540 19 2	70·32	67 2 6	4·93	100
April 1, 1893 ..	639 4 3		496 4 8				
July 1, 1893 ..	737 9 11	1,481 6 11	509 8 8	67·86	36 10 0	2·43	434
Totals .....	6,630 14 4	6,750 4 5	4,711 9 1	69·79	261 3 1	3·86	...

\* Three Weeks only.

† Loss.

‡ Fourteen weeks.

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.  
MANTLE FACTORY.

Quarter Ending	Transferred.	Production.	Expenses.	Rate per Cent.	Net Profit.	Rate per Cent.	Net Loss.	Rate per Cent.	Stocks.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£ s. d.		£
March 28, 1891 ..	268 15 9	1,005 7 3	275 8 11	73-03	..	..	86 17 4	8-64	203
June 27, 1891 ..	725 14 5		458 17 5		..	..			
Sept. 26, 1891 ..	534 5 6	1,352 19 4	398 15 3	64-30	..	..	52 3 0	3-84	350
Dec. 26, 1891 ..	795 15 6		471 8 3		..	..			
March 26, 1892 ..	413 15 3	1,165 4 11	399 19 2	69-44	..	..	107 17 7	9-26	321
June 25, 1892 ..	744 4 5		409 13 8		..	..			
Sept. 24, 1892 ..	641 10 5	1,541 19 2	396 11 9	57-84	97 6 1	6-30	....	..	275
Dec. 31, 1892 ..	917 11 9		495 19 8		..	..			
April 1, 1893 ..	589 7 9	1,166 0 2	421 16 9	68-52	..	..	63 4 9	5-40	463
July 1, 1893 ..	570 13 4		377 6 2						
Totals ..	6,201 14 1	6,231 10 10	4,105 17 0	65-88	97 6 1	1-55	310 2 8	4-97	..

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.  
HOSIERY FACTORY.

Quarter Ending	Transferred.	Production.	Expenses.	Rate per Cent.	Net Profit.	Rate per Cent.	Net Loss.	Rate per Cent.	Stocks.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£ s. d.		£
April 1, 1893 ..	1,248 13 3	2,724 0 3	467 5 10	35-35	..	..	43 8 2	1-57	785
July 1, 1893 ..	1,583 7 8		496 6 9		..	..			
Totals ....	2,832 0 11	2,724 0 3	963 12 7	35-35	..	..	43 8 2	1-57	..

## PRODUCTIVE DEPARTMENT.

## QUARTERLY STATEMENT SHOWING

Quarter Ending		Transferred.			Production.			Expenses.		
		£	s.	d.	£	s.	d.	£	s.	d.
May	2, 1885..	3,298	16	7	3,298	16	7	1,183	10	5
August	1, 1885..	5,222	6	4	5,222	6	4	1,642	8	2
October	31, 1885..	5,283	9	3	5,283	9	3	1,686	10	3
January	30, 1886..	5,456	19	0	5,456	19	0	1,723	7	0
May	1, 1886..	6,535	2	5	6,535	2	5	2,010	0	5
July	31, 1886..	6,217	1	1	6,217	1	1	2,101	11	6
* December	25, 1886..	15,607	4	2	15,607	4	2	4,290	7	0
March	26, 1887..	6,105	16	5	6,105	16	5	2,161	8	4
June	25, 1887..	8,757	13	0	8,757	13	0	2,796	10	5
September	24, 1887..	9,100	13	10	9,100	13	10	2,882	11	1
December	31, 1887..	9,892	17	1	9,870	13	7	3,198	1	6
March	31, 1888..	7,857	5	5	8,162	3	4	2,759	2	8
June	30, 1888..	6,564	3	5	7,293	17	3	2,747	5	0
September	29, 1888..	11,007	15	8	11,335	14	3	3,813	4	4
December	29, 1888..	12,744	8	7	12,575	18	10	4,243	14	6
March	30, 1889..	9,242	10	9	10,446	4	1	3,691	18	3
June	29, 1889..	13,064	4	11	14,383	1	10	4,649	4	7
September	28, 1889..	14,117	19	7	14,256	5	10	5,174	0	5
December	28, 1889..	13,205	8	3	15,000	9	10	5,407	3	1
March	29, 1890..	10,964	14	3	28,621	13	5	4,854	0	3
June	28, 1890..	16,035	18	0				5,611	6	2
September	27, 1890..	14,536	8	8	30,503	13	1	5,555	17	10
December	27, 1890..	15,871	2	0				5,824	0	0
March	28, 1891..	12,981	3	3	36,406	9	8	5,794	18	7
June	27, 1891..	19,068	3	9				6,789	1	8
September	26, 1891..	16,072	6	8	36,629	1	10	6,248	2	6
December	26, 1891..	23,005	11	5				7,194	6	9
March	26, 1892..	16,447	13	2	38,374	15	3	6,629	12	5
June	25, 1892..	20,794	11	8				7,512	4	7
September	24, 1892..	19,032	8	6	47,150	2	10	7,280	1	6
† December	31, 1892..	26,477	12	5				9,894	2	8
April	1, 1893..	19,388	17	1	52,446	7	4	8,464	16	11
July	1, 1893..	28,250	0	7				9,578	9	8
Totals.....		428,208	7	2	445,041	14	4	155,393	0	5

\* Twenty-one weeks.

† Fourteen weeks.



## BOOT AND SHOE FACTORY.

## EXPENSES AND NET PROFIT.

Rate per Cent on Production.	Net Profit on Production.	Rate per Cent on Production.	Net Loss.	Rate per Cent.	Stocks.
	£ s. d.		£ s. d.		£
35·87	....	..	47 9 10	1·42	2,176
31·44	65 14 11	1·24	....	....	2,613
31·91	175 4 4	3·31	....	....	3,435
31·57	81 8 8	1·48	....	....	3,386
30·75	165 13 2	2·52	....	....	4,042
33·77	215 3 5	3·45	....	....	5,231
27·49	651 19 9	4·17	....	....	4,020
35·39	60 12 7	0·98	....	....	7,189
31·92	63 15 4	0·72	....	....	7,350
31·66	393 16 3	4·31	....	....	6,108
32·40	619 19 8	6·28	....	....	5,406
33·80	405 4 1	4·96	....	....	6,965
37·66	282 10 0	3·86	....	....	7,886
33·64	450 13 11	3·97	....	....	10,606
33·74	621 9 0	4·93	....	....	11,869
35·32	430 0 7	4·11	..	....	12,423
32·32	611 3 0	4·24	....	....	12,588
36·29	600 7 3	4·28	....	....	14,658
36·04	909 12 1	6·06	....	....	15,890
36·56	1,867 10 10	6·52	....	....	19,920
37·30	1,744 10 11	5·71	....	....	17,349
34·56	1,635 2 2	4·49	....	....	24,080
36·69	1,996 18 7	5·45	....	....	18,292
36·85	2,115 17 8	5·51	....	....	18,006
36·42	2,743 19 7	5·82	....	....	18,220
34·40	4,070 11 6	7·76	....	....	24,660
34·91	22,978 19 3	..	47 9 10	0·01	....
	47 9 10	..			
	22,931 9 5	5·15			

## PRODUCTIVE DEPARTMENTS.

## CABINET

Quarter Ending		Transferred.			Production.			Expenses.		
		£	s.	d.	£	s.	d.	£	s.	d.
January	31, 1885..	144	3	9	144	3	9	102	19	9
May	2, 1885..	338	8	1	338	8	1	179	12	0
August	1, 1885..	388	0	5	388	0	5	228	3	10
October	31, 1885..	417	17	7	417	17	7	214	13	5
January	30, 1886..	361	0	0	361	0	0	219	0	5
May	1, 1886..	371	8	1	371	8	1	209	0	6
July	31, 1886..	504	6	6	504	6	6	276	16	0
*December	25, 1886..	994	19	4	994	19	4	499	14	10
March	26, 1887..	620	2	1	620	2	1	312	11	11
June	25, 1887..	582	12	0	582	12	0	326	19	9
September	24, 1887..	656	13	0	656	13	0	329	10	7
December	31, 1887..	629	9	6	697	19	11	410	6	10
March	31, 1888..	457	14	8	651	11	8	330	15	11
June	30, 1888..	960	9	2	801	0	9	384	2	8
September	29, 1888..	1,194	4	6	1,269	8	0	680	17	9
December	29, 1888..	1,477	10	8	1,601	12	11	914	6	0
March	30, 1889..	1,445	7	0	1,612	15	3	885	4	8
June	29, 1889..	1,830	0	8	1,797	2	9	950	10	7
September	28, 1889..	1,784	1	6	1,707	6	11	927	14	11
December	28, 1889..	2,594	18	11	2,654	14	7	1,258	14	10
March	29, 1890..	2,626	4	5	6,116	7	10	1,520	7	11
June	28, 1890..	3,511	12	4				1,740	10	6
September	27, 1890..	2,933	19	11	7,312	2	1	1,674	16	6
December	27, 1890..	4,266	18	5				2,180	11	7
March	28, 1891..	2,682	8	8	7,340	2	9	1,791	8	2
June	27, 1891..	4,294	4	10				2,140	1	1
September	26, 1891..	3,364	10	4	7,806	11	0	1,868	19	0
December	26, 1891..	4,338	3	11				2,196	7	4
March	26, 1892..	3,182	12	0	7,784	17	1	1,973	16	7
June	25, 1892..	4,374	4	4				2,277	5	11
September	24, 1892..	3,793	5	6	9,602	0	0	2,141	0	0
†December	31, 1892..	5,168	3	11				2,879	15	3
April	1, 1893..	2,983	11	9	9,781	11	7	2,319	11	6
July	1, 1893..	5,549	4	11				2,618	4	7
Totals....		70,822	12	8	73,916	15	11	38,964	13	1

\* Twenty-one weeks.

† Fourteen weeks.

## QUARTERLY STATEMENT.

## WORKSHOP.

Rate per Cent.	Net Profit.	Rate per Cent.	Net Loss.	Rate per Cent.	Stocks.
	£ s. d.		£ s. d.		£
71·52	..	..	10 6 0	6·94	298
52·95	4 1 11	1·18	..	..	294
58·76	16 14 8	4·12	..	..	425
51·31	9 19 8	2·39	..	..	364
60·66	15 14 5	4·30	..	..	444
56·06	0 6 11	..	..	..	484
54·76	14 7 6	2·77	..	..	486
50·15	69 3 5	6·93	..	..	425
50·32	18 1 0	2·90	..	..	520
56·18	6 18 3	1 20	..	..	676
50·15	15 11 6	2·28	..	..	787
58·73	27 0 3	3·86	..	..	1,069
50·69	24 9 8	3 68	..	..	1,415
47·94	12 7 7	1·49	..	..	1,281
53·58	..	..	115 11 2	7·38	1,818
57·08	58 1 10	3·62	..	..	2,152
54·90	30 0 1	1·24	..	..	2,467
52·86	19 8 6	1·05	..	..	2,358
54·30	20 16 0	1·23	..	..	2,341
47·40	113 13 11	4·25	..	..	2,466
53·30	478 5 4	7·81	..	..	3,470
52·72	420 19 9	5·75	..	..	4,975
53·55	..	..	40 12 10	0·54	5,484
52·07	215 6 10	2·75	..	..	6,124
54·61	216 4 7	2·77	..	..	5 845
52·28	724 4 5	7·54	..	..	6,808
50·48	510 16 10	5·21	..	..	7,976
52·71	3,042 14 10	..	166 10 0	0·22	....
	166 10 0	..			
	2,876 4 10	3·89			

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.  
BRUSH FACTORY.

Quarter Ending	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.	Stocks.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£
March 29, 1890 ..	483 10 9						
June 28, 1890 ..	874 8 11	1,510 1 0	238 15 2	39·66	144 15 1	9·53	823
September 27, 1890 ..	753 10 9		360 8 6				
December 27, 1890 ..	1,015 13 6	2,295 16 10	404 1 1	36·16	121 13 11	5·27	1,302
March 28, 1891 ..	903 7 9		426 3 3				
June 27, 1891 ..	1,099 18 11	2,244 13 0	412 1 10	40·68	168 15 11	7·48	1,775
September 26, 1891 ..	735 0 3		501 10 8				
December 26, 1891 ..	1,059 12 9	1,849 7 7	416 0 1	43·10	88 8 1	4·75	2,758
March 26, 1892 ..	906 14 9		381 0 0				
June 25, 1892 ..	1,185 11 7	1,975 19 11	387 15 8	42·46	67 8 4	3·39	2,281
September 24, 1892 ..	992 9 10		451 3 0				
* December 31, 1892 ..	1,406 16 0	2,454 14 4	456 12 0	44·13	128 15 7	5·25	2,991
April 1, 1893 ..	1,039 1 5		626 5 0				
July 1, 1893 ..	1,250 13 3	2,526 6 10	357 17 0	38·12	30 0 11	1·19	2,920
			6 5 13 9				
Totals .....	13,706 10 5	14,856 19 6	6,025 7 0	40·55	749 17 10	5·05	....

\* Fourteen weeks.

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.  
PRINTING WORKSHOP.

Quarter Ending	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.	Stocks.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£
December 31, 1887 ..	649 14 2	653 15 5	347 14 7	53-13	41 19 10	6-43	175
March 31, 1888 ..	698 16 9	692 5 2	350 5 6	50-57	44 14 0	6-35	287
June 30, 1888 ..	767 14 9	783 8 7	355 11 1	45-33	72 16 5	9-19	180
September 29, 1888 ..	759 11 6	760 19 5	369 12 1	48-55	90 6 5	11-84	240
December 30, 1888 ..	888 14 4	884 19 4	405 8 8	45-81	78 5 7	8-82	228
March 30, 1889 ..	812 18 0	846 17 10	469 9 4	55-43	43 9 6	5-08	326
June 29, 1889 ..	957 11 10	995 2 4	530 13 9	53-26	71 16 7	7-13	425
September 28, 1889 ..	991 9 2	1,027 3 8	510 0 0	49-65	77 14 6	7-59	438
December 28, 1889 ..	1,093 8 5	1,116 8 1	616 4 6	55-19	68 19 11	6-18	602
March 29, 1890 ..	1,307 11 4	3,170 2 11	689 7 1	48-10	291 9 3	9-17	706
June 28, 1890 ..	1,785 12 1		837 4 9				
September 27, 1890 ..	1,981 12 2		861 11 8				
December 27, 1890 ..	2,167 4 9		908 19 5	44-16	200 9 5	4-99	832
March 28, 1891 ..	2,080 9 8		913 0 9				
June 27, 1891 ..	2,016 0 0		883 18 3	44-10	245 16 10	6-03	1,223
September 26, 1891 ..	1,970 2 5		942 18 1				
December 26, 1891 ..	2,951 12 6		1,117 0 4	40-51	472 6 10	9-28	1,351
March 26, 1892 ..	2,408 17 7		1,147 12 6				
June 25, 1892 ..	3,321 8 10		1,257 17 1	40-99	596 19 0	10-17	2,144
September 24, 1892 ..	2,732 8 5		1,363 16 9				
December 31, 1892 ..	4,180 13 5		1,615 19 8	43-38	290 3 4	4-22	2,058
April 1, 1893 ..	3,566 6 1		1,565 1 5				
July 1, 1893 ..	3,886 11 4		1,476 10 0	40-89	797 17 0	10-73	1,850
Totals .....	43,976 9 6	44,270 11 8	19,535 17 3	44-12	3,485 4 5	7-87	....

\* Fourteen weeks.

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.  
PRESERVE WORKS.

Quarter Ending	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.	Stocks.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£
* June 28, 1890 ..	375 10 6	798 8 7	93 3 9	11.65	415 5 1	1.89	944
September 27, 1890 ..	6,568 13 9		529 3 8		696 11 5	5.79	3,091
December 27, 1890 ..	4,256 1 5	12,017 16 0	413 13 1	7.84			
March 28, 1891 ..	5,165 12 2		520 10 4				
June 27, 1891 ..	3,467 19 0	7,615 18 9	545 10 5	14.00	592 6 2	7.77	5,980
September 26, 1891 ..	12,893 19 9		1,095 12 4				
December 26, 1891 ..	7,840 0 11	28,495 2 7	838 19 4	6.78	1,147 2 0	4.02	9,042
March 26, 1892 ..	13,228 1 9		1,010 4 4				
June 25, 1892 ..	5,542 3 1	10,410 16 11	999 18 1	19.30	1,063 13 3	10.21	11,041
September 24, 1892 ..	10,338 8 9		1,610 8 0				
* December 31, 1892 ..	13,391 2 8	40,212 8 7	1,431 9 4	7.56	1,742 14 3	4.33	21,380
April 1, 1893 ..	14,173 17 5		1,241 1 7				
July 1, 1893 ..	12,216 0 5	21,419 16 11	1,569 3 7	13.11	757 10 6	3.53	16,566
Totals .....	109,457 11 7	120,970 8 4	11,898 17 10	9.83	5,984 12 6	4.94	....

\* Fourteen Days.      † Loss.      ‡ Fourteen weeks.

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.  
CONFECTIONERY WORKS.

Quarter Ending	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.	Stocks.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£
June 27, 1891 ..	846 1 1	962 2 0	133 15 9	13·91	18 15 7	1·97	818
September 26, 1891 ..	978 6 6		143 12 10				
December 26, 1891 ..	1,341 15 2	2,316 5 3	135 12 3	12·04	76 15 3	3·28	439
March 26, 1892 ..	967 13 7		138 18 10				
June 25, 1892 ..	1,218 1 11	2,073 11 0	156 13 3	14·23	45 6 7	2·17	344
September 24, 1892 ..	1,240 8 3		293 6 9				
*December 31, 1892 ..	2,053 9 9	3,991 17 5	694 5 4	24·72	†494 16 7	12·40	1,234
April 1, 1893 ..	2,321 12 5		718 13 9				
July 1, 1893 ..	2,872 11 10	5,157 1 5	739 14 9	28·27	†238 10 2	4·61	1,175
Totals .....	13,840 0 6	14,500 17 1	3,154 13 6	21·75	†592 9 4	4·0	....

\* Fourteen weeks.

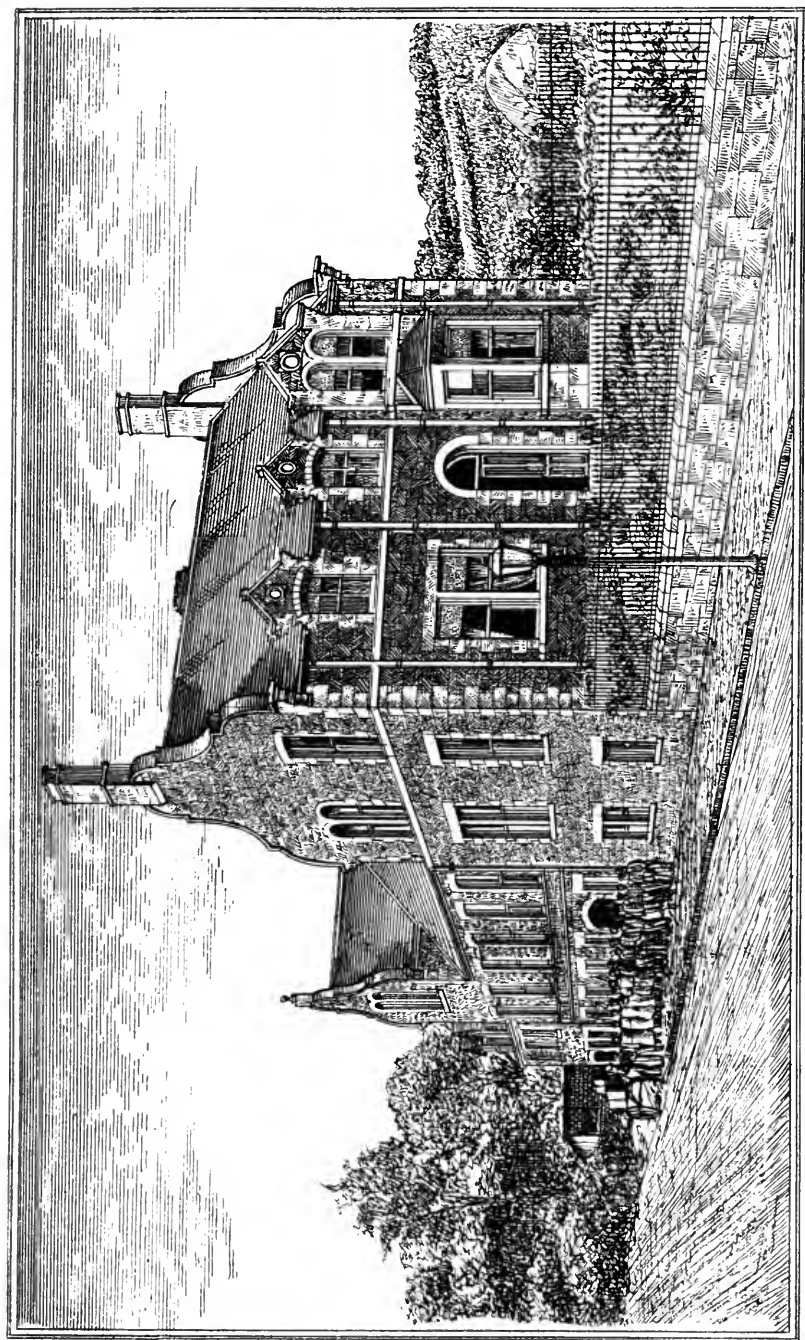
† Loss.

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.  
TOBACCO FACTORY.

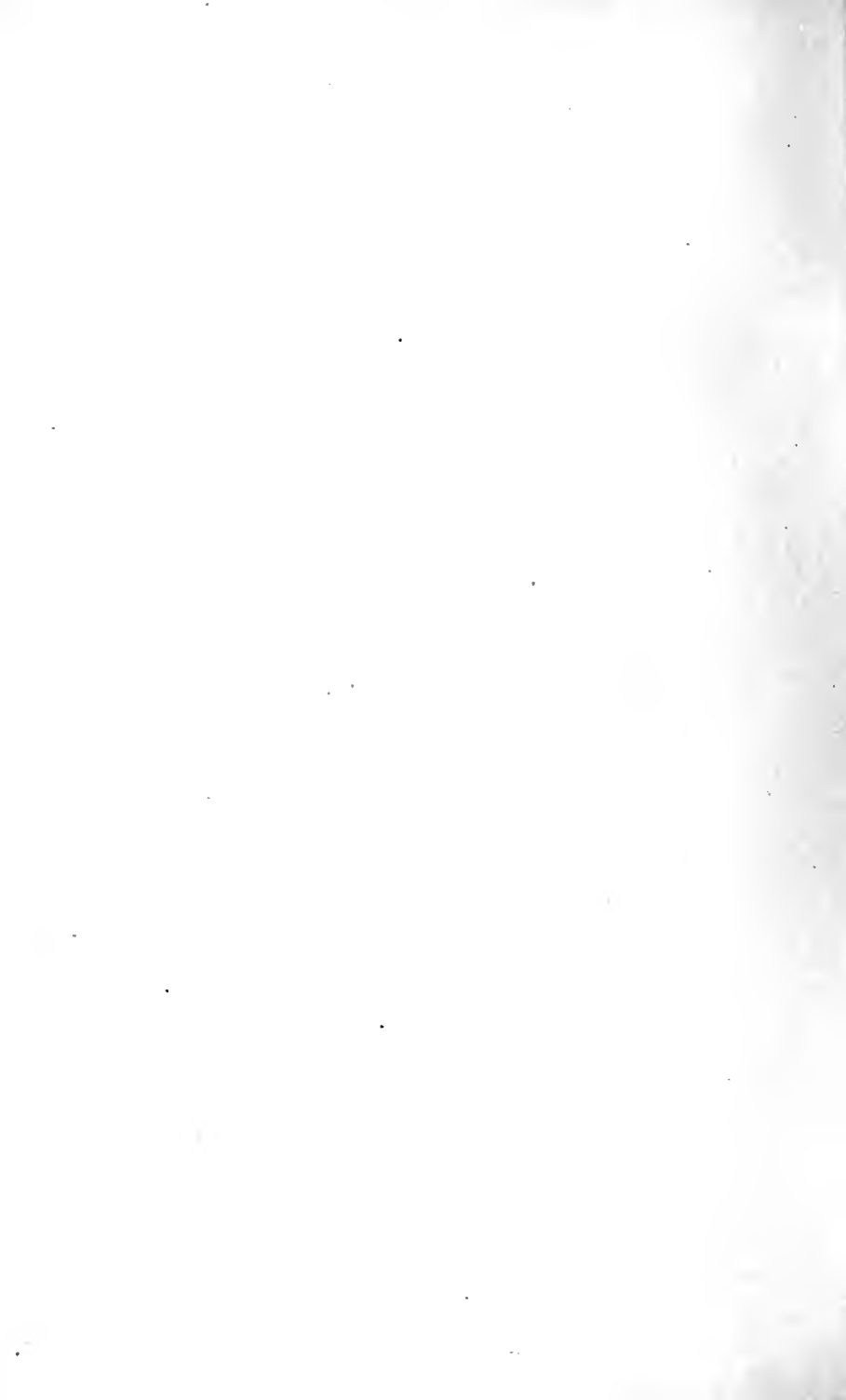
Quarter Ending	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.	Net Loss.	Rate per Cent.	Stocks.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£ s. d.		£
June 27, 1891..	.....	.....	38 0 3	.....	.....	.....	41 11 0	.....	3,101
Sept. 26, 1891..	3,144 18 9	21,326 17 2	587 19 2	7·81	693 2 11	3·25	.....	.....	8,958
Dec. 26, 1891..	12,365 5 11		1,079 0 1						
March 26, 1892..	11,909 10 1	26,056 14 0	1,110 10 9	8·65	713 4 9	2·73	.....	.....	9,233
June 25, 1892..	14,037 15 7		1,143 7 6						
Sept. 24, 1892..	14,706 1 2	32,859 15 4	1,171 11 3	7·64	1,725 6 10	5·25	.....	.....	13,461
*Dec. 31, 1892..	18,679 17 4		1,341 6 5						
April 1, 1893..	16,704 9 6	32,756 15 0	1,348 14 0	8·14	1,216 10 8	3·71	.....	.....	18,572
July 1, 1893..	16,811 8 2		1,319 9 5						
Totals.....	108,359 6 6	113,000 1 6	9,139 18 10	8·08	4,348 5 2	.....	41 11 0	0·03	.....
					41 11 0	.....			
					4,306 14 2	3·81			

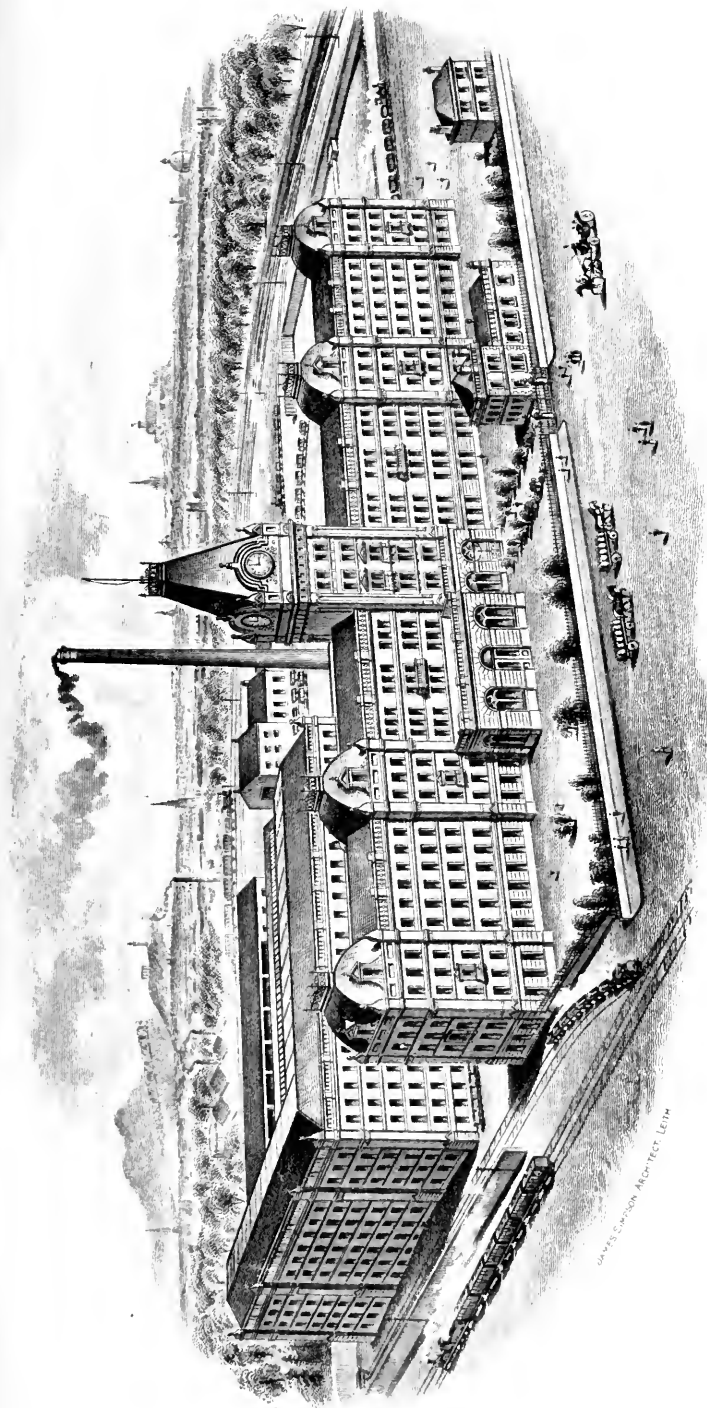
\* Fourteen weeks.





ENNISKILLEN DEPOT—BUTTER, EGGS, AND BACON.





·CHANCELOT ·ROLLER ·FLOUR ·MILLS, ·EDINBURGH, 1891·

·THE ·SCOTTISH ·CO-OPERATIVE ·WHOLESALE ·SOCIETY ·L<sup>D</sup>·



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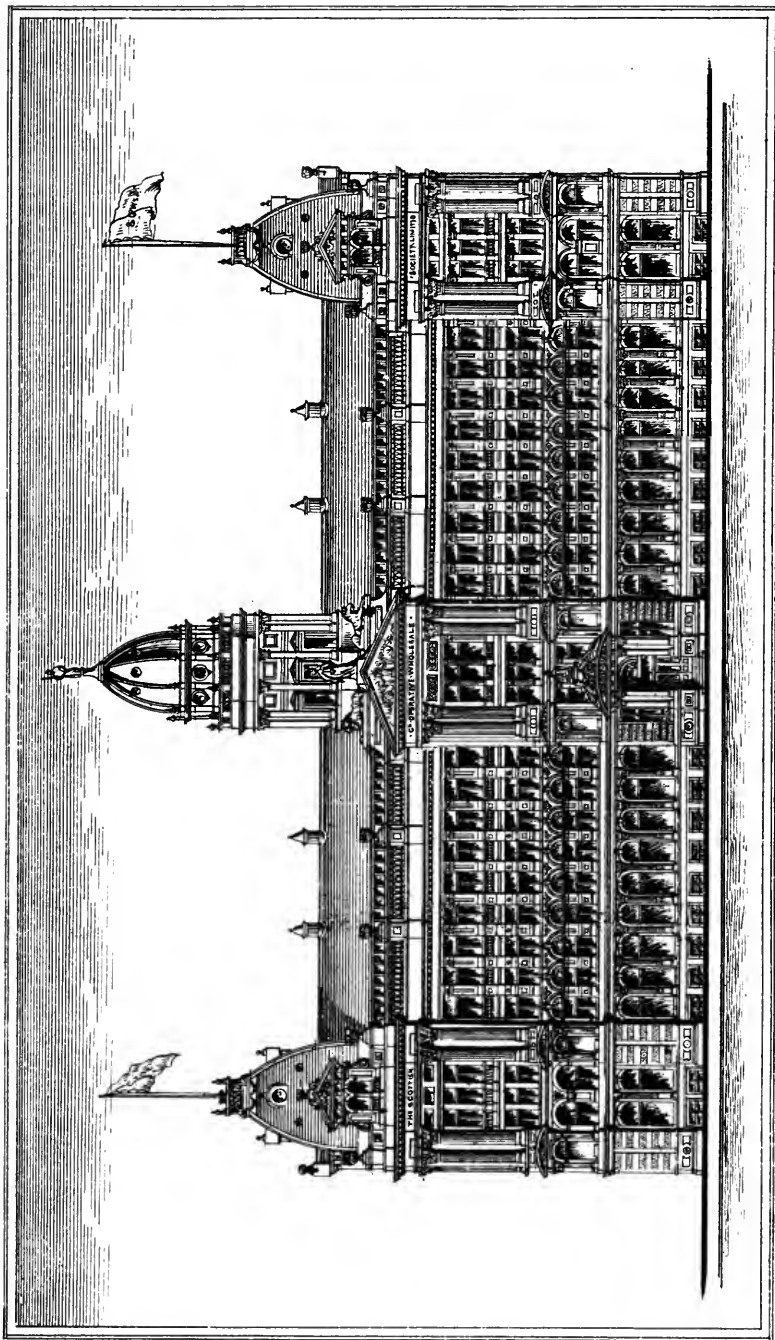
## NUMBER OF EMPLOYÉS, SEPTEMBER 30TH, 1893.

PRODUCTIVE DEPARTMENTS, SHIELDHALL.—*Con.*

	Collective Totals
Brought forward .....	1,844
Preserve and Confectionery Works .....	138
Tobacco Factory .....	73
Hosiery „ .....	47
Slop „ .....	47
Mantle „ .....	36
Shirt „ .....	89
Coffee Essence Factory .....	6
Drug Department .....	9
Mechanical Department .....	42
Tinware Factory .....	14
Pickle Work .....	22
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## BUILDING DEPARTMENT.

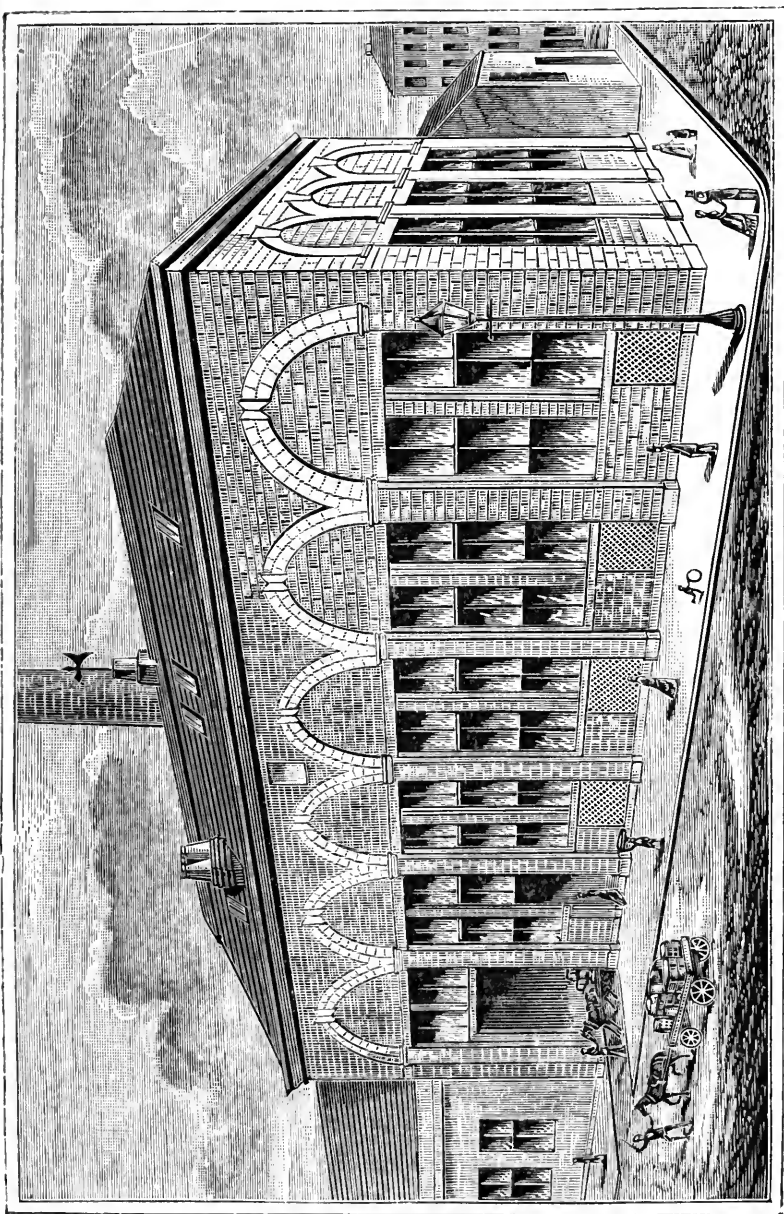
GLASGOW—Joiners .....	67
Builders .....	10
Bricklayers .....	10
Hewers .....	21
Labourers .....	75
Cooper .....	1
Slaters and Plasterers .....	2
Carvers .....	4
Causeway Layer....	1
Plumbers .....	10
Painters .....	28
Electricians .....	3
Management .....	5
	<hr/> 237
LEITH—Joiners .....	22
Builders.....	46
Hewers .....	67
Labourers .....	75
Painters .....	2
Plumbers .....	8
FARM—Carbrook Mains .....	16
	<hr/> 236
Total.....	<hr/> 2,840



NEW CENTRAL OFFICES MORRISON STREET, GLASGOW.

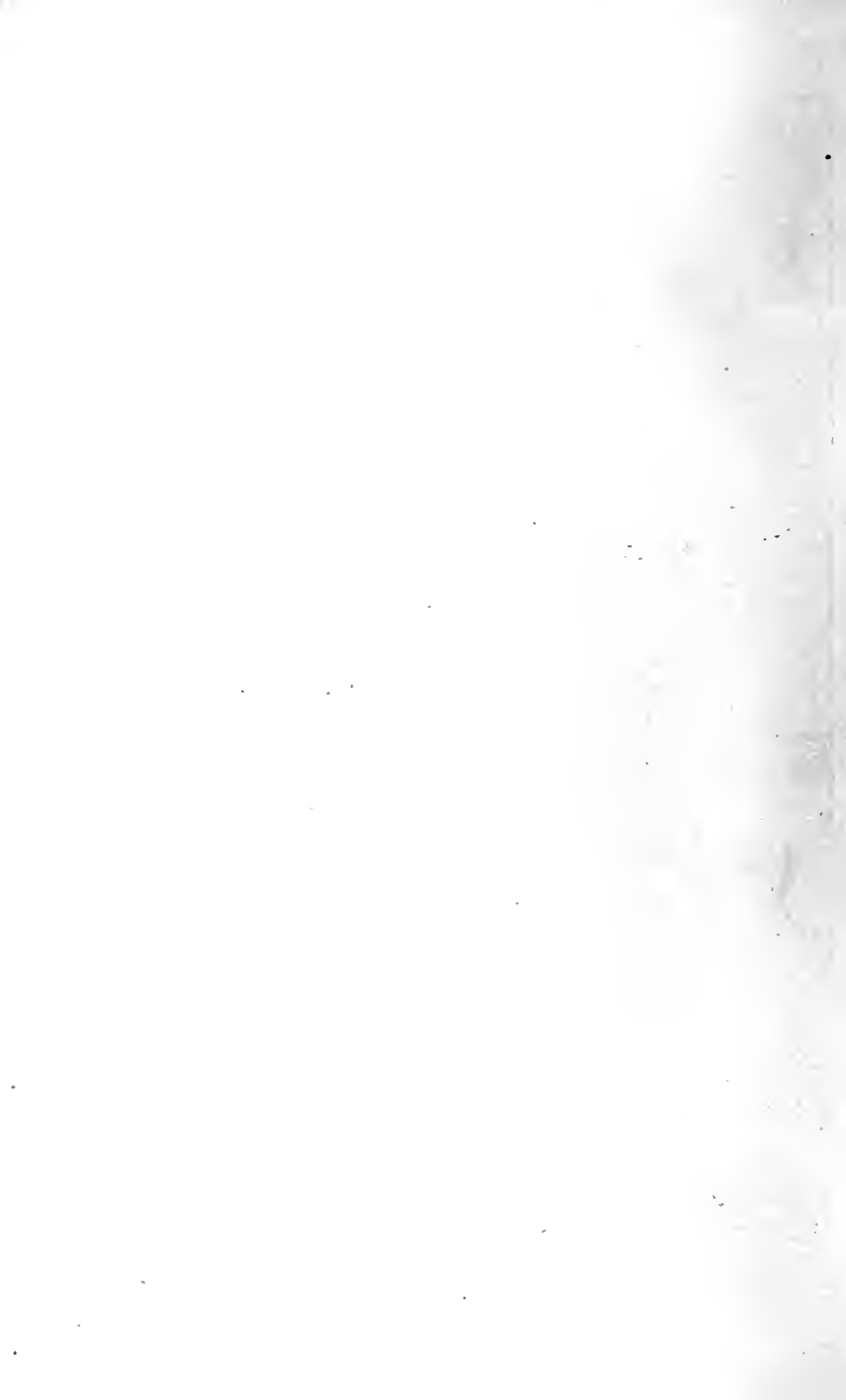


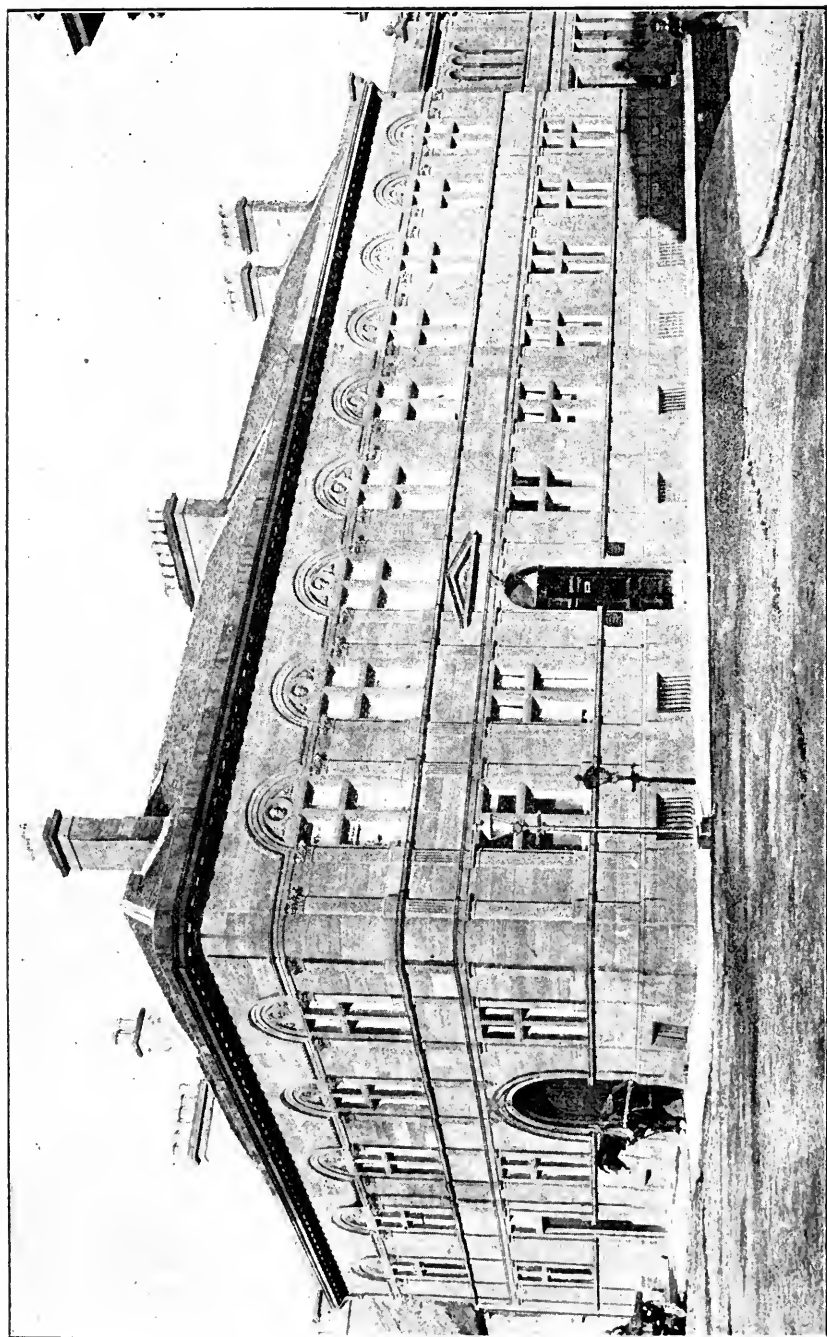




DUNDEE GROCERY AND PROVISION WAREHOUSE, TRADES LANE.

*See page 136.*





KILMARNOCK GROCERY and PROVISION WAREHOUSE, GRANGE PLACE.



## SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.



WE repeat statement for 1892, setting forth the total purchases made in that year by the various Co-operative Societies, and the percentage of those purchases made through the Wholesale Society. We again think it right to explain that the figures are taken from the sales shown in last Congress Report, less 20 per cent. This deduction does not, we admit, give in some cases the actual difference which ought to be deducted from selling to arrive at cost price, but we think that, generally speaking, the deduction is a fair one. We are certain that a comparison of this statement with that of last year will be of very considerable interest, and we earnestly hope that the result will be more loyal and consistent purchasing from the Wholesale Society.

## SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report.	Amount of Loan Capital as per Congress Report.	Share Capital in Wholesale Society.	Amount of Loan Capital in Wholesale Society.	PURCHASED FROM WHOLESALE SOCIETY.					Estimated Total Purchases, being 20% less than Congress Report.	Percentage of Purchases from Wholesale to Total Purchases.	Number.
								Grocery.	Drapry	Boots.	Furni- ture.	Total.			
				£	£	£	£	£	£	£	£	£	£		
1	Alva and Branches.....	796	692	9,238	280	519	2,117	8,728	1,296	688	920	11,036	17,253	63.9	1
2	Allea .....	2,541	2,500	52,227	2,905	2,500	14,725	31,898	6,555	1,928	1,710	44,501	70,968	62.8	2
3	Alva Baking .....	704	409	6,377	...	396	632	3,672	...	...	...	3,672	6,361	57.7	3
4	Auchtermuchty .....	178	200	1,233	500	200	216	1,692	326	...	65	2,008	2,835	70.8	4
5	Auchtermuchty .....	347	300	489	1,492	300	436	5,165	180	24	206	5,575	9,297	59.9	5
6	Armadale .....	544	450	12,415	837	1,307	9,076	13,104	1,920	512	857	16,386	26,100	62.8	6
7	Arbroath, High Street .....	1,092	1,100	8,846	1,902	1,100	2,408	14,863	794	273	154	16,084	20,485	78.5	7
8	Arbroath .....	400	400	880	3,902	400	876	5,640	1,102	450	352	7,554	10,965	68.9	8
9	Aberdeen .....	120	120	100	100	107	2	176	...	...	...	176	176	15.7	9
10	Aberdeen .....	63	72	84	...	36	8	721	63	...	4	788	1,128	69.8	10
11	Arbroath Equitable .....	993	1,000	7,673	...	789	59	5,884	246	...	52	5,682	13,100	49.3	11
12	Auchtermuchty .....	200	195	540	...	195	101	4,103	315	229	163	4,710	6,590	72.2	12
13	Auchtermuchty .....	208	200	1,492	200	64	6	409	200	13	43	754	5,532	136	13
14	Barrhead .....	1,732	1,650	5,166	25,438	1,650	4,925	35,315	4,438	2,655	1,235	43,673	47,995	90.9	14
15	Bo'ness .....	1,140	1,000	13,127	718	1,000	4,217	22,024	2,857	1,183	742	26,386	31,445	76.4	15
16	Bathgate .....	700	700	10,427	...	700	4,429	12,514	1,988	453	366	15,321	22,608	67.5	16
17	Bushy .....	307	340	1,328	4,130	340	1,061	7,798	790	486	292	9,396	13,578	68.9	17
18	Beth .....	601	510	1,429	6,359	510	406	6,336	536	297	225	7,354	12,924	55.4	18
19	Buckhaven .....	646	550	7,991	...	550	751	9,742	2,927	668	230	13,567	24,446	55.4	19
20	Brechin Equitable .....	1,626	1,606	23,150	...	1,606	6,054	14,755	2,827	910	260	18,752	31,372	59.7	20
21	Bonnybridge .....	580	500	8,032	...	500	973	10,746	2,890	1,220	692	15,057	18,593	81.2	21
22	Bonnyrigg .....	332	300	5,043	685	300	1,007	4,478	819	...	123	5,714	8,396	68.0	22
23	Bonnyrigg .....	81	50	262	...	50	96	1,769	138	116	79	2,122	2,968	71.4	23
24	Bridge of Weir .....	190	175	1,722	...	175	814	2,801	862	487	235	4,385	5,744	70.3	24
25	Broxburn .....	1,062	1,050	13,364	...	1,050	7,541	25,315	3,692	1,461	988	31,450	40,396	77.8	25
26	Broxburn .....	605	550	10,101	...	550	3,912	7,386	3,090	1,011	376	11,863	18,378	63.5	26
27	Banochter .....	400	226	1,289	300	47	2	240	23	...	5	274	4,626	59.2	27
28	Banochter .....	380	350	1,069	1,453	350	465	6,375	1,105	478	457	8,415	14,115	59.6	28
29	Banochter .....	430	350	1,722	...	350	548	9,882	1,617	818	592	12,909	18,582	95.1	29
30	Bridge of Allan .....	82	100	216	80	100	150	1,185	213	105	88	1,591	2,621	60.7	30
31	Burntisland .....	268	230	1,804	137	172	139	5,400	1,037	384	138	6,959	7,776	89.4	31
32	Bellshill and Mossend .....	170	170	181	397	172	200	2,383	470	183	300	3,386	3,826	87.1	32
33	Bainford & Grahamston Baking .....	1,136	1,050	4,196	...	515	42	7,232	...	...	...	7,232	9,476	76.3	33
34	Crosshouse .....	324	340	8,227	...	170	3,017	4,039	880	305	186	4,910	7,625	64.4	34

35	Catrine .....	539	550	10,304	....	550	3,755	4,789	1,578	529	536	7,434	11,306	652	35
36	Carluke .....	332	318	3,576	....	238	1,012	6,417	1,109	492	353	8,371	11,108	747	36
37	Caithcart .....	388	70	88	314	86	1,203	36	....	....	15	1,254	2,437	516	37
38	Cadder .....	129	100	258	1,560	75	1,097	4,218	725	333	412	5,688	8,452	672	38
39	Camelon .....	488	488	2,087	2,087	488	219	9,006	2,908	1,319	478	13,711	19,790	692	39
40	Carstairs Junction .....	249	200	1,335	522	150	106	5,552	969	525	280	7,325	8,112	903	40
41	Carstairs Junction .....	249	200	1,335	522	150	106	5,552	969	525	280	7,325	8,112	903	41
42	Coatbridge .....	2,146	2,300	30,114	9,787	2,300	12,445	49,290	9,054	637	3,057	64,721	89,584	722	42
43	Chapelhall .....	536	200	1,374	3,515	200	1,478	7,526	1,312	627	683	10,748	16,372	656	43
44	Chapelton .....	900	125	824	130	125	388	816	235	30	122	1,203	1,869	643	44
45	Chapelton .....	42	80	300	26	80	57	915	205	16	87	1,313	2,270	578	45
46	Calderbank .....	240	220	717	1,665	220	928	3,922	904	336	327	5,480	11,090	495	46
47	Calderbank .....	183	140	1,852	713	140	887	3,512	365	201	153	5,431	7,744	736	47
48	Calderbank .....	92	82	61	258	82	251	1,080	118	26	8	1,302	3,040	405	48
49	Calderbank .....	486	550	1,257	6,667	550	4,743	13,704	2,347	579	673	17,302	20,557	841	49
50	Cambuslang .....	146	120	1,487	....	120	197	2,030	300	189	91	2,613	4,453	586	50
51	Cambuslang .....	343	400	2,871	....	300	39	5,824	705	180	317	7,089	15,066	470	51
52	Cambuslang .....	217	154	2,648	1,146	154	592	2,722	575	110	88	3,495	9,043	386	52
53	Cambuslang .....	261	250	4,352	880	250	677	3,380	1,149	440	96	5,065	10,473	483	53
54	Cambuslang .....	743	300	6,203	3,000	300	47	1,711	589	....	45	5,845	17,665	132	54
55	Cambuslang .....	245	268	425	21	201	23	2,559	254	220	26	3,059	3,804	804	55
56	Cambuslang .....	236	240	771	10	240	304	1,985	278	82	129	2,474	3,577	691	56
57	Cambuslang .....	646	530	2,768	5,357	530	330	12,433	1,423	1,233	339	15,518	20,594	753	57
58	Cambuslang .....	1,332	1,350	11,181	2,206	1,350	2,204	46,271	9,487	4,230	1,676	61,667	70,900	869	58
59	Cambuslang .....	258	220	3,072	....	220	658	4,010	391	....	301	4,902	6,943	515	59
60	Cambuslang .....	158	150	371	471	150	46	2,417	86	232	16	2,751	3,575	706	60
61	Cambuslang .....	111	100	430	211	100	45	1,011	36	8	14	580	1,668	347	61
62	Cambuslang .....	124	120	325	....	105	15	1,155	174	96	22	1,447	1,940	745	62
63	Cambuslang .....	180	163	1,105	218	163	118	2,853	676	306	236	4,071	6,095	667	63
64	Cambuslang .....	4,730	4,500	69,665	....	4,500	19,438	61,495	11,975	4,724	1,808	80,002	133,928	597	64
65	Cambuslang .....	2,450	2,200	4,080	30,130	2,200	12,305	60,483	11,061	3,000	2,519	77,082	98,587	781	65
66	Cambuslang .....	580	560	16,317	3,348	560	141	9,783	2,407	616	232	11,216	15,152	740	66
67	Cambuslang .....	638	400	2,255	5,868	400	141	9,783	2,407	616	232	11,216	15,152	740	67
68	Cambuslang .....	1,800	1,774	31,392	13,257	1,774	22,267	49,083	6,574	2,008	1,795	60,060	66,468	903	68
69	Cambuslang .....	568	529	7,350	408	529	1,236	10,499	2,197	1,195	461	14,352	19,841	723	69
70	Cambuslang .....	387	300	1,935	7,161	300	4,489	4,569	1,304	619	700	7,282	12,050	604	70
71	Cambuslang .....	387	300	1,935	7,161	300	4,489	4,569	1,304	619	700	7,282	12,050	604	71
72	Cambuslang .....	200	250	680	1,114	250	367	3,598	263	196	234	4,311	6,765	637	72
73	Cambuslang .....	237	270	2,986	3,131	270	198	3,592	682	378	238	4,800	7,615	642	73
74	Cambuslang .....	80	100	132	....	100	9	773	98	59	27	887	1,455	609	74
75	Cambuslang .....	144	169	463	520	81	354	1,186	269	130	143	1,728	5,572	310	75
76	Cambuslang .....	192	180	561	1,259	180	1,226	2,541	327	301	100	3,269	4,843	675	76
77	Cambuslang .....	315	187	1,966	3,328	187	814	4,723	538	275	321	5,857	8,366	700	77
78	Cambuslang .....	779	670	5,426	66	502	63	6,161	124	162	68	6,515	10,923	596	78
79	Cambuslang .....	210	220	1,213	....	220	188	3,496	279	234	185	4,194	6,080	689	79
80	Cambuslang .....	76	100	680	....	21	6	715	23	91	75	903	1,557	580	80
81	Cambuslang .....	1,949	1,700	3,331	12,311	1,700	4,094	38,951	463	15	556	37,985	48,849	777	81
82	Cambuslang .....	175	130	752	2,741	130	100	2,392	364	110	59	2,925	4,360	670	82
83	Cambuslang .....	137	112	227	846	112	194	1,257	150	79	47	1,542	3,564	432	83
84	Cambuslang .....	137	112	227	846	112	194	1,257	150	79	47	1,542	3,564	432	84

\* From Balance Sheets for 1892.

+ Congress Report Returns are for year 1891.

## SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report.	Amount of Loan Capital as per Congress Report.	Share Capital in Wholesale Society.	Amount of Loan Capital in Wholesale Society.	PURCHASED FROM WHOLESALE SOCIETY.					Estimated Total Purchases, being 20% less than Sales shown in Congress Report.	Purchased, being Total.	Percentage of Purchases from Total Purchases.	Number.
				£	£	£	£	Grocery.	Drapery.	Boots.	Furni- ture.	Total.	£	£		
85	Edinburgh Roperle, Leith .....	120	136	208	54	102	54	3,046	25	115	....	3	3,142	5,085	626	85
86	Elgin .....	48	108	81	5	94	41	322	....	31	....	8	325	925	490	86
87	Earlston .....	58	69	305	94	69	41	565	19	....	39	654	1,180	663	554	87
88	Edenvale .....	62	61	372	19	61	28	718	203	9	23	953	1,682	1,682	578	88
89	Falkland .....	124	21	583	....	21	27	887	12	....	....	880	2,370	2,370	379	89
90	Fergenhill .....	174	180	1,774	....	180	493	2,521	221	160	80	2,982	2,982	2,982	711	90
91	Ficus, Auchtermarder .....	133	128	489	....	96	166	1,420	102	....	41	1,563	2,146	2,146	728	91
92	Frickheim .....	124	130	962	....	17	9	476	237	....	1	714	1,043	1,043	684	92
93	Gaiston .....	668	500	9,146	....	375	5,178	10,013	1,304	672	392	12,321	23,955	23,955	510	93
94	Grahamston and Bainsford .....	1,224	1,250	19,524	....	988	2,951	17,899	6,490	2,673	989	28,051	47,216	47,216	594	94
95	Grangemouth .....	877	900	16,094	3,229	900	9,803	18,686	4,149	1,495	1,064	25,394	33,291	33,291	762	95
96	Greenock Industrial .....	962	850	2,074	....	350	61	4,903	924	420	283	6,580	9,166	9,166	712	96
97	Greenock East .....	490	800	2,146	2,450	300	109	10,796	2,333	766	437	14,332	15,876	15,876	902	97
98	Gavieside .....	106	110	1,173	....	110	887	691	157	....	119	967	4,166	4,166	252	98
99	Galashiels, Waverley .....	1,380	1,370	23,506	1,368	1,370	3,429	19,180	4,670	1,317	581	25,748	42,724	42,724	602	99
100	Greenock Central .....	1,301	1,100	4,410	9,726	1,100	566	25,457	3,591	2,046	955	32,049	36,884	36,884	870	100
101	Glasgow .....	64	100	500	....	125	100	1,043	43	80	28	1,194	1,758	1,758	679	101
102	Galashiels Store Co. ....	1,400	1,200	17,668	8,380	900	552	9,418	1,762	809	507	12,496	40,127	40,127	311	102
103	Glasgow .....	246	200	198	....	150	93	2,972	189	....	....	2,461	8,885	8,885	641	103
104	Gallatoun .....	254	200	803	1,260	200	266	4,168	298	262	313	5,086	8,580	8,580	586	104
105	Gilbertfield .....	132	200	502	456	130	442	1,906	79	144	45	2,174	6,510	6,510	338	105
106	Glenboig .....	446	200	1,464	198	150	93	8,537	2,441	911	200	12,059	19,634	19,634	616	106
107	Gorebridge .....	265	176	620	700	176	300	3,103	579	409	180	4,571	9,520	9,520	480	107
108	Glengowan .....	87	100	320	21	100	77	1,591	195	145	22	1,953	2,668	2,668	732	108
109	Gardubridge .....	124	40	691	....	40	253	1,574	1	129	40	1,744	2,544	2,544	584	109
110	Glenbuck .....	657	600	727	....	211	16	737	10	....	....	747	2,544	2,544	294	110
111	Galashiels Coal Co. ....	240	160	2,445	....	99	16	647	310	41	95	1,068	8,679	8,679	125	111
112	Greengairs .....	643	950	974	210	673	48	4,932	763	196	150	6,041	14,628	14,628	412	112
113	Haddington .....	332	300	1,494	....	300	68	4,320	1,222	475	433	6,450	9,544	9,544	675	113
114	Hamilton .....	560	480	5,000	1,459	480	4,425	5,254	529	383	67	6,214	13,482	13,482	460	114
115	Harford .....	74	100	210	....	100	355	1,460	177	264	67	1,967	3,244	3,244	606	115
116	Howwood .....	224	100	536	....	100	855	1,086	403	219	181	1,967	3,853	3,853	520	116
117	Harlet and Ntishill .....	406	300	2,152	150	300	463	6,674	804	125	180	7,783	7,408	7,408	739	117
118	Hillwood .....	2,962	2,900	39,928	4,591	2,900	5,370	35,129	6,490	1,874	1,492	44,985	94,508	94,508	475	118



119	Hamilton Central	583	520	3,660	1,862	520	3,429	17,693	1,756	869	960	21,248	22,848	929	119
120	Hamilton Palace Colliery	217	100	925	533	200	867	5,051	904	393	316	6,664	9,292	717	120
121	Hallside	107	200	321	296	100	96	2,829	258	177	177	8,411	4,555	755	121
122	Hallgate	243	160	2,148	39	120	718	4,677	659	302	144	5,762	7,160	807	122
123	Holygate	62	50	183	112	42	8	646	339	40	96	1,131	2,904	486	123
124	Holytown	62	130	182	243	97	10	865	115	31	20	1,040	1,388	749	124
125	Irvine and Fullarton	71	60	...	...	45	68	984	7	...	90	381	...	...	125
126	Laveray	250	200	2,747	517	190	41	4,616	907	355	328	6,204	10,008	619	126
127	Inverleithen	936	850	2,890	11,249	850	2,963	16,294	2,238	1,260	536	20,268	27,829	728	127
128	Johnstone	414	400	6,069	55	400	2,288	5,751	1,327	287	280	7,654	9,806	775	128
129	Juniper Green	363	360	5,068	...	270	846	9,015	1,744	593	839	11,691	14,372	813	129
130	Kilmarnock	2,822	2,300	44,856	1,336	2,300	4,690	41,537	4,743	1,235	1,790	49,431	63,502	778	130
131	Kirkcaldy	108	141	956	643	141	62	2,538	214	150	20	3,022	3,285	919	131
132	Kirkcaldy and Vicinity	118	115	231	...	115	80	949	150	38	33	1,741	1,741	672	132
133	Kirkcaldy and Vicinity	6,600	5,000	20,374	25,172	5,000	2,780	78,082	8,708	3,906	2,211	92,908	152,956	607	133
134	Kilbracken	385	370	4,287	1,005	370	1,258	8,065	960	486	403	9,917	13,238	749	134
135	Kilbracken	695	500	13,650	...	500	4,685	16,103	1,905	500	728	19,236	30,822	624	135
136	Kelso	279	130	1,488	48	130	159	3,487	1,078	396	199	5,070	8,799	576	136
137	Kilwinning	39	37	301	...	34	9	748	141	86	51	1,026	1,540	666	137
138	Kilwinning Equitable	620	550	5,201	...	550	704	10,310	1,323	652	341	12,626	17,696	713	138
139	Kirkcaldy	204	233	787	233	233	18	1,450	224	31	41	2,844	4,529	627	139
140	Kirkcaldy	446	390	1,382	...	390	120	2,844	...	...	...	2,176	5,608	388	140
141	Kirkcaldy	140	149	450	1,244	149	1,064	1,566	360	208	42	2,176	17,491	728	141
142	King's Seat	538	450	6,701	1,542	450	3,023	10,694	1,194	378	383	12,651	17,491	553	142
143	Kilbracken	160	170	869	1,200	147	16	1,450	14	208	96	1,708	3,084	509	143
144	Leadhills	154	134	649	...	134	167	1,957	82	148	170	2,387	4,624	525	144
145	Lennoxton	197	190	1,286	1,413	190	593	3,093	467	257	117	3,394	7,488	728	145
146	Lochgelly	973	800	21,854	...	800	9,440	24,054	3,316	527	1,088	28,935	47,114	614	146
147	Leath and Primlows	733	610	9,316	...	610	4,745	9,697	1,836	809	215	12,617	17,310	728	147
148	Leath and Primlows	514	500	6,866	140	500	2,762	6,019	1,980	561	215	8,725	11,224	777	148
149	Leath Old Store	228	210	1,454	...	157	600	2,442	500	203	142	3,300	5,568	924	149
150	Leath Old Store	150	170	1,923	...	170	648	8,043	738	54	19	8,977	6,380	628	150
151	Leath Old Store	80	100	319	836	100	1,159	1,213	73	...	...	1,305	2,589	504	151
152	Leath Old Store	208	180	774	1,882	180	813	3,690	803	388	292	5,093	10,090	497	152
153	Leath Old Store	650	650	1,377	1,405	650	99	8,923	772	503	186	10,394	14,798	707	153
154	Leath Old Store	205	160	3,091	...	160	739	2,656	514	196	175	3,541	6,105	580	154
155	Leath Old Store	110	135	1,230	...	135	201	969	112	12	69	1,163	2,000	581	155
156	Leath Old Store	3,312	3,000	20,282	7,853	3,000	6,943	46,835	9,487	2,226	915	50,463	80,213	741	156
157	Leath Old Store	238	200	654	1,672	200	1,603	2,352	367	204	127	3,050	8,483	359	157
158	Larkhall	198	140	906	300	140	134	2,651	284	311	129	3,375	5,410	623	158
159	Lassodie	160	263	892	184	263	133	1,105	167	...	7	1,285	5,420	237	159
160	Lassodie	229	200	3,648	...	200	288	3,499	938	403	269	5,100	57,64	886	160
161	Leath Old Store	383	380	2,760	...	285	1,133	3,276	...	...	...	3,276	3,795	863	161
162	Langholm	423	427	3,050	937	427	303	3,694	2,143	698	483	9,911	12,359	387	162
163	Lever Reform	447	390	3,645	...	390	1,493	6,587	2,143	133	59	1,190	14,398	690	163
164	Lever Reform	107	85	295	356	85	13	894	1,644	406	289	6,037	8,461	713	164
165	Mauchline	440	410	6,616	625	410	2,499	3,698	1,644	406	289	6,037	8,461	827	165
166	Mauchline	185	180	3,819	...	180	1,544	3,587	649	264	130	4,630	5,594	568	166
167	Moffat Paper Mills	110	60	454	794	60	315	2,427	445	159	211	2,427	5,703	568	167
168	Markinch	610	550	5,002	2,273	550	2,252	10,357	2,011	1,013	293	13,574	16,494	829	168

Congress Report Returns are for year 1891.

\* No Return.

## SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report.	Amount of Loan Capital as per Congress Report.	Share Capital in Wholesale Society.	Amount of Loan Capital in Wholesale Society.	PURCHASED FROM WHOLESALE SOCIETY.						Estimated Total Purchases, being 20 % less than Sales shown in Congress Report.	Percentage of Purchases from Wholesale to Total Purchases.	Number.
								Grocery.	Drapry.	Boots.	Fur- ture.					
											£	£	£			
169	Milngavie .....	289	170	1,583	82	170	532	4,085	220	100	177	4,602	8,838	55.1	169	
170	Milport .....	108	100	545	...	100	111	1,054	225	139	109	1,527	1,645	92.8	170	
171	Musselburgh Industrial .....	199	200	714	643	200	64	2,476	834	114	56	2,980	3,818	78.0	171	
172	Musselburgh and Fishrow .....	582	667	4,965	949	667	2,137	13,174	2,200	741	206	16,411	18,601	88.2	172	
173	Muirkirk .....	443	40	2,271	...	40	340	8,756	282	580	237	9,855	12,431	79.2	173	
174	Marshall .....	428	350	1,121	855	318	66	7,174	284	219	291	7,868	12,897	60.9	174	
175	Methil .....	40	40	...	...	2	100	413	52	...	18	458	...	...	175	
176	Newmilns .....	785	750	12,703	4,588	750	7,415	10,260	2,669	766	441	14,076	21,502	62.4	176	
177	Northern Edinburgh .....	1,537	1,550	12,734	1,754	1,550	5,454	20,311	3,256	1,202	490	25,289	31,920	75.2	177	
178	Newtonshaw .....	563	500	8,778	...	500	1,799	6,776	992	207	334	8,309	17,155	48.4	178	
179	Newtonshaw Industrial .....	250	100	2,795	...	100	174	932	485	195	112	1,724	7,893	31.8	179	
180	Norton Park .....	1,031	1,000	4,917	2,363	867	109	15,016	2,408	600	823	18,347	25,665	71.4	180	
181	Newmalms and Cambusnethan .....	829	210	3,254	...	210	617	2,377	362	225	263	8,237	13,685	25.6	181	
182	Niddrie .....	287	217	741	884	217	218	4,154	695	251	85	5,185	8,962	57.8	182	
183	Newton Means .....	154	140	668	623	105	887	2,276	983	250	165	3,074	4,726	65.0	183	
184	Newton .....	280	260	786	882	260	695	7,063	203	347	219	7,892	10,327	76.4	184	
185	Newarthill .....	204	200	8,113	...	200	1,194	3,971	590	236	251	5,048	7,569	66.5	185	
186	New Cumnock .....	213	140	897	800	105	77	2,017	3	82	60	2,162	4,412	49.0	186	
187	Ochilvale .....	228	200	1,416	...	148	2	102	...	...	9	111	4,076	29.1	187	
188	Overtown .....	142	120	1,054	...	120	187	1,942	413	171	158	2,684	5,049	58.1	188	
189	Old Cumnock .....	130	100	177	...	35	13	1,143	...	106	3	1,312	2,232	69.1	189	
190	Portobello .....	423	420	2,326	5,628	420	2,463	9,417	1,179	449	242	11,287	14,148	79.7	190	
191	Palley Equitable .....	1,688	900	2,381	9,138	600	2,963	20,045	96	894	35	20,970	27,501	76.2	191	
192	Pentouk .....	1,659	1,600	30,315	...	1,600	19,011	31,324	7,615	2,082	1,150	42,171	61,129	68.9	192	
193	Port Glasgow .....	411	280	3,323	...	280	595	6,546	1,348	552	276	8,732	13,129	63.4	193	
194	Palley Provident .....	3,802	4,000	12,689	45,673	4,000	5,854	6,167	82	3,400	1,287	68,936	105,816	65.4	194	
195	Parkhead .....	318	260	726	1,428	260	100	2,764	59	12	56	2,861	6,222	43.6	195	
196	Parkhills .....	318	200	1,222	...	200	424	3,600	180	29	50	3,859	8,215	42.9	196	
197	Perth .....	3,061	3,000	83,257	...	2,828	4,507	50,359	11,479	3,043	1,908	66,787	92,331	72.3	197	
198	Peebles .....	367	310	3,420	2,554	210	74	7,895	1,686	531	482	10,564	14,062	87.1	198	
199	Port Glasgow Provident .....	610	500	1,111	2,628	500	1,597	9,676	1,076	554	119	11,435	13,090	87.2	199	
200	Prentonians .....	270	270	1,167	...	270	1,833	5,689	1,192	176	141	7,198	8,787	81.9	200	
201	Plains .....	143	140	226	1,629	140	771	6,988	698	265	271	3,966	5,732	69.5	201	
202	Patna .....	115	110	476	...	110	187	2,445	353	101	151	3,050	4,354	70.0	202	



## SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

SOCIETIES NON-MEMBERS, BUT WHO HAVE PURCHASED FROM THE WHOLESALE DURING 1892.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report.	Amount of Loan Capital as per Congress Report.	Share Capital in Wholesale Society.	Amount of Loan Capital in Wholesale Society.	PURCHASED FROM WHOLESALE SOCIETY.					Estimated Total Purchases, being 20% less than Sales shown in Congress Report.	Percentage of Purchases from Wholesale to Total Purchases.	Number.
								Grocery	Drapery	Books.	Furni- ture.	Total.			
1	Aberdeen Northern .....	11,563	...	57,098	...	...	19	£ 982	£ 424	£ 250	£ 129	£ 1,785	249,504	0.7	1
2	Auchterarder Baking .....	286	...	213	156	...	1	67	...	...	...	67	1,580	4.2	2
3	Arbroath Friendly Coal .....	3,112	...	2,436	300	...	10	61	2	...	1	64	6,102	1.0	3
4	Blebo Works .....	67	...	203	...	...	6	631	142	...	31	804	2,260	35.5	4
5	Bridgeton Victualling .....	410	...	1,925	...	...	16	22	...	...	...	22	18,028	0.1	5
6	" Old Vict. & Baking Scty. ..	1,169	...	3,654	1,909	...	8	98	...	570	...	598	58,112	1.0	6
7	Blaigowrie .....	1,018	...	329	...	...	9	381	2	...	...	383	8,666	10.4	7
8	Carnoustie .....	217	...	7,548	391	...	5	1,754	83	...	25	1,862	18,148	10.2	8
9	" Equitable .....	86	...	162	1,500	...	12	181	1	...	4	186	5,200	8.5	9
10	Dunning .....	3,916	...	14,002	...	...	77	59	...	63	...	59	705	8.3	10
11	Eastern Dundee .....	6,248	...	6,248	...	...	46	9,805	99	172	56	10,962	123,948	8.2	11
12	Edinburgh Civil Service .....	187	...	208	760	...	...	10,734	...	...	...	...	180,920	6.0	12
13	East Port Saving, Forfar .....	147	...	898	240	...	12	33	87	...	20	140	3,756	0.08	13
14	Freuchie .....	87	...	453	...	...	9	62	70	...	7	139	1,902	3.9	14
15	" New .....	1,092	...	4,996	...	...	22	1,419	21	...	25	1,495	20,221	7.3	15
16	Kirkcaldy .....	395	...	359	...	...	2	58	...	...	...	58	6,596	0.8	16
17	Kirkcaldy .....	626	...	3,904	...	...	16	300	...	...	...	300	6,608	4.4	17
18	Leven Baking .....	152	...	169	...	...	...	...	10	...	...	...	2,098	0.4	18
19	Muthill .....	152	...	2,828	...	...	1	265	...	...	...	265	13,968	1.8	19
20	Montrose Baking and Trading ..	309	...	2,291	1,316	...	15	538	...	...	22	560	12,436	4.5	20
21	Oakbank .....	146	...	904	...	...	7	152	...	...	...	161	1,512	10.6	21
22	Peterhead .....	85	...	201	...	...	...	273	...	...	13	285	1,920	21.5	22
23	Riccarton .....	418	...	1,117	...	...	2	16	...	...	8	19	6,712	0.2	23
24	Strathisa .....	1,283	...	11,972	137	...	52	593	...	...	1	594	20,512	2.8	24
25	United Association, Brechin .....	2,326	...	22,564	...	...	7	28	...	...	...	28	42,104	0.06	25
26	Westport Association, Arbroath ..	820	...	568	891	...	3	326	...	...	...	326	5,528	5.6	26
27	West Townend, Forfar .....	...	...	...	...	...	...	...	...	...	...	...	...	...	27
	Total .....	87,032	...	146,570	7,090	...	362	28,300	950	1,054	631	31,435	817,427	8.8	

† Congress Report Returns are for year 1891.

## SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

SOCIETIES WHICH HAVE MADE NO PURCHASES FROM THE WHOLESALE DURING 1892.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report.	Amount of Loan Congress Report.	Share Capital in Wholesale Society.	Amount of Loan Capital in Wholesale Society.	PURCHASED FROM WHOLESALE SOCIETY.				Estimated Total Sales shown in Congress Report.	Percentage of Purchases from Wholesale to Total Purchases.	Number.
								Grocery.	Drap'ry	Boots.	Furni- ture.	Total.		
1	† Alrdrie Bread .....	794	...	886	900	...	...	£	£	£	£	£	6 156	1
2	† Auchinheath .....	374	...	1,520	...	...	...	...	...	...	...	...	16,577	2
3	† Burntisland Bread .....	273	...	1,384	...	...	...	...	...	...	...	...	1,708	3
4	† Blackford .....	72	...	209	...	...	...	...	...	...	...	...	1,216	4
5	† Banff .....	277	...	899	...	...	...	...	...	...	...	...	2,741	5
6	† Carronhall and Kinnaird .....	246	...	428	446	...	...	...	...	...	...	...	5,655	6
7	† Carronshore Baking .....	228	...	908	...	...	...	...	...	...	...	...	2,534	7
8	† Courrie .....	112	...	375	...	...	...	...	...	...	...	...	1,813	8
9	† Dairy Baking .....	340	...	246	...	...	...	...	...	...	...	...	1,882	9
10	† Darnagavil .....	91	...	248	...	...	...	...	...	...	...	...	4,180	10
11	† Dysart .....	695	...	2,138	548	...	...	...	...	...	...	...	11,700	11
12	† Dundee Coal Supply .....	1,179	...	419	...	...	...	...	...	...	...	...	2,898	12
13	† Don (Port Elphinstone) .....	455	...	2,490	800	...	...	...	...	...	...	...	7,534	13
14	† Forfar Coal .....	1,098	...	799	...	...	...	...	...	...	...	...	2,534	14
15	† " Free Trade Saving .....	375	...	535	...	...	...	...	...	...	...	...	7,304	15
16	† " Victoria Coal .....	705	...	412	...	...	...	...	...	...	...	...	1,563	16
17	† " West Port .....	182	...	215	291	...	...	...	...	...	...	...	2,980	17
18	† High Street, Forfar .....	287	...	470	1,016	...	...	...	...	...	...	...	5,360	18
19	† Kilmarnock Industrial .....	824	...	2,754	...	...	...	...	...	...	...	...	13,094	19
20	† Kilryth .....	170	...	434	...	...	...	...	...	...	...	...	5,377	20
21	† Larkhall Victualling .....	430	...	451	441	...	...	...	...	...	...	...	14,586	21
22	† Northern Association, Forfar .....	831	...	509	1,153	...	...	...	...	...	...	...	6,585	22
23	† Newburgh Bread .....	283	...	305	...	...	...	...	...	...	...	...	1,565	23
24	† Rosewell .....	183	...	441	...	...	...	...	...	...	...	...	6,864	24
25	† Ratherglen Victualling & Baking .....	350	...	456	...	...	...	...	...	...	...	...	14,376	25
26	† Springfield, Polton .....	40	...	195	...	...	...	...	...	...	...	...	1,800	26
	Total .....	10,274	...	20,071	5,595	...	...	...	...	...	...	...	150,351	...

† Congress Report Returns are for year 1891.

## SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

## FEDERATED SOCIETIES.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report.	Amount of Loan Capital as per Congress Report.	Share Capital in Wholesale Society.	Amount of Loan Capital in Wholesale Society.	PURCHASED FROM WHOLESALE SOCIETY.					Estimated Total Purchases, being 20% less than Sales shown in Congress Report.	Percentage of Purchases from Wholesale to Total Purchases.	Number.
								Grocery.	Drapery.	Boots.	Fur- ture.	Total.			
1	Ayrshire Baking .....	7	100	1,083	17,002	£	£	£	£	£	£	£	£	87.0	1
2	Drapery and Furnishing .....	98	120	5,355	14,648	100	8,554	12,570	1	6	8	12,585	14,455	87.0	1
3	Paisley Manufacturing .....	1,130	800	16,438	26,706	120	2,221	663	24,506	9,605	2,398	37,102	37,593	98.6	2
4	Scottish Farming .....	283	200	4,646	8,660	800	519	110	9,836	146	279	10,371	43,151	24.0	3
5	Scottish Tweed Manufacturing ..	355	200	10,609	4,325	63	8	753	20	21	15	809	6,120	13.2	4
6	United Baking, Glasgow .....	51	161	10,523	47,445	16	5,196	47	31	....	5	83	15,475	0.5	5
7	United Baking, Chapelhall .....	6	20	493	2,401	120	113	99,612	167	68	210	100,057	108,823	91.9	6
						15	113	2,298	1	....	21	2,315	6,280	36.8	7
	<b>Total .....</b>	<b>1,870</b>	<b>1,601</b>	<b>49,206</b>	<b>116,187</b>	<b>1,234</b>	<b>16,611</b>	<b>116,048</b>	<b>34,562</b>	<b>9,846</b>	<b>2,866</b>	<b>163,922</b>	<b>231,897</b>	<b>70.4</b>	

# AMERICAN IMMIGRATION LAWS.

BY EDWARD PORRITT.

"Our territory is broad, and our people few in numbers. People of all nations shall be permitted to come to our land without let or hindrance."



FOR nearly a century this was the sentiment which governed the policy of the United States towards immigration. It was only in 1875 that the first Act of Congress was passed for the restriction of immigration, and this was intended to exclude only immigrants of an undesirable and obnoxious kind. Hitherto America had welcomed all comers, and all Federal legislation up to this time had been with a view to attracting immigration. In 1819, and again in 1847 and in 1882, Congress passed laws dealing with the vessels in which immigrants were carried across the Atlantic. The country wanted immigration, and it was the desire of Congress to make the coming of the immigrants as safe and as comfortable as possible. This was the intention of all these laws; but especially of that of 1882, which was passed to meet the new conditions in the immigrant passenger trade due to the substitution of steamers for sailing vessels.

In the Act of 1882 Congress showed its eagerness to take some oversight of the new comers to America before they reached the port of debarkation. The Act was put through the Lower House at Washington by Mr. Gunther, a Congressman from Wisconsin, who had arrived in New York as an immigrant only sixteen years prior to that time. His speeches on the bill showed that he was not of that more recently-developed class of immigrants who, having come to America and done well, desire to set up a wall round the country to keep out new comers. In 1881, the year previous to the passing of this Act, 669,431 immigrants had landed in America, and an even larger number was expected in 1882. "The countries of Europe," said Mr. Gunther, in his speech in Congress in behalf of the bill of 1882, "look upon this immigration with jealous eyes. It is the marrow bone that leaves them. It is not to be presumed that the law-making powers of these countries will exert themselves to any great extent in favour of the people. On the contrary, they look

## AMERICAN IMMIGRATION LAWS.

upon the privations which the emigrants have to undergo with a sort of grim satisfaction. But we, the representatives of the American people, who receive the benefits of this immigration—a people which is ever ready to stand by those who need our help, always willing to correct all abuses of human beings—should not now hesitate to pass a law which is so urgently required.” Other speeches in the same vein were made in support of the bill, which was the last passed by Congress in the spirit expressed in the speech of the Congressman from Wisconsin. This Act was approved by Congress on the 2nd of August, 1882; and on the next day approval was given to another Act, which was the first ever passed with a view to sifting and restricting immigration from Europe, and not aimed exclusively at those who were vicious or criminal, as was the Act of 1875.

In any review of the immigration laws and policy of the United States, it is well to deal first with those laws which are aimed at the Chinese, and afterwards with those which are intended as a check on immigration from Europe. Each of these movements makes an interesting chapter in the economic history of the United States. Up to ten or fifteen years ago America gave a cordial welcome to all comers, and had been almost effusive in her invitation to the people of China to make their homes within her borders.

To understand the attitude of the Federal Government towards Chinese immigration, and the drastic legislation which has been passed since 1882, it is necessary to go back to the Burlingame Treaty of 1868, in which the effusive invitation to Chinamen was given. The treaty was negotiated in behalf of the United States by Messrs. W. H. Seward and Anson Burlingame, and was supplementary to a treaty which had been in existence between the United States and China since 1858. In the fifth article of the Burlingame Treaty it was declared that the “United States of America and the Emperor of China cordially recognised the inherent and inalienable rights of man to change his home and allegiance, and also the mutual advantage of the free migration and emigration of their citizens and subjects respectively from one country to the other for purposes of curiosity, of trade, or as permanent residents.” In the next article it was set out that “citizens of the United States visiting or residing in China shall enjoy the same privileges, immunities, or exceptions in respect to travel or residence as may be there enjoyed by the citizens or subjects of the most favoured nation, and, reciprocally, Chinese subjects visiting or residing in the United States shall enjoy the same privileges, immunities, and exceptions in respect to travel or residence as may there be enjoyed by the citizens or subjects of the most favoured nations.” This treaty, with its most favoured nation privileges and its further



## AMERICAN IMMIGRATION LAWS.

promise that "Chinese subjects shall enjoy all privileges of the public education institutions under control of the Government of the United States," is in singular contrast with the series of Federal legislative enactments against the Chinese, commencing with the Act of 1882 and culminating in the now notorious Geary Act of 1892, the operation of which has caused so much controversy and legal and diplomatic turmoil within the present year.

About the time the Burlingame Treaty was proclaimed, and for some years later, there was work in abundance for the Chinese labourers in the development of California and the territories on the slopes of the Pacific. In response to the Spread Eagle invitation contained in the treaty, Chinamen literally swarmed into the country. They made the railways, drained the tule lands, worked the mines of California and of the neighbouring territories, and for a time were so useful that the only apprehension was that they would not continue to come in sufficient numbers. The Emperor of China, with full faith in the Burlingame Treaty, favoured the emigration, and as was stated in 1880 by his Commissioners, when the United States were seeking to take back some of the privileges granted in 1868, "when other powers were exceedingly urgent in their need for Chinese labour and desired this Government to allow its subjects to go of their own free will, this Government, because those other powers treated the Chinese labourers harshly, and not with the kindness shown them by the United States, could not do otherwise than take this difference into consideration." In 1850, when California was admitted to the Union, the Chinaman was given a place in the procession in San Francisco in honour of that event. In 1869, when the negotiators of the Burlingame Treaty were on their way back from China, they were publicly entertained at San Francisco, as an acknowledgment of their services.

The Chinamen had been coming to the country for years before the treaty was negotiated; but the increased numbers in which they came after 1868 soon led to a revolt on the part of the white labourers on the Pacific Coast, and a violent agitation was commenced for the recalling of the invitation which had been extended to them in the Burlingame Treaty. The State Legislature of California early in the agitation passed several laws against the Chinamen, and the agitation reached such a point that in 1877 a Committee of Congress went from Washington to California to investigate the subject. Shortly before this time a representative committee of the labour organisations in San Francisco had issued an appeal to the working men and women of the United States to side with them in the conflict with the Chinese labourers. In this appeal it was declared that "the competition of Mongolian labourers is inevitably destructive, and will be certain to force the labouring

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American down in habits and expenses of life to the level of the half barbarian." "In the struggle between the coolie and free white labour," continued this appeal, "the latter is heavily handicapped. The coolie brings neither wife nor family with him, consequently he finds no difficulty in underbidding the Caucasian worker, who maintains his family in a decent civilised manner, and has been taught to believe that honourable toil is worthy of something more than a mere subsistence. His five thousand years' training to wretched frugality in competition with his five hundred million fellow Mongolians has taught him how to live upon the least possible amount of air and food." It was further alleged by the San Francisco labour organisations that the Chinese "underbid white men in the labour market, purchase little or no American products or manufactures, live squalidly crowded together, constantly engendering disease, and, unlike white immigrants, they do not come to make homes with us, and help to build up the country, but come without wives and children, and do not and cannot assimilate with the Caucasian race."

This appeal epitomises the case of the white labourers against the Chinese. The statements and opinions it expressed were practically those adopted by the Congressional Committee which went to California in 1877. In its report to Congress this Committee declared that it had become painfully evident that the Pacific Coast must in time either become American or Mongolian, and that "the Chinese have advantages which put them far in advance in the race for possession. They can subsist where the American would starve; they can work for wages which would not furnish the barest necessities of life for an American."

It was not denied that Chinamen were good workers; even the labour organisations did not raise this cry. Their complaint was that it was impossible for white men to compete with them, and that the Chinaman made neither a good neighbour nor a good citizen. "As labourers upon public works," wrote the late Senator Morton, who was of the Congressional Committee which went to the Pacific Coast in 1877, "they were entirely reliable; they worked more hours than white men, were not given to strikes, and never undertook any combinations to control the price of labour." Even the allegation of the labour organisations that the Chinaman was not a good citizen was frequently challenged. The Chinaman had no vote, and consequently no help from the politician; but he had some friends, and among them was Joaquim Miller, the poet, who had been a journalist and a judge in Grant County, Oregon, during the time of the Chinese invasion of the Pacific Coast. In a letter written in February, 1879, Mr. Miller stated that during his official residence in Oregon, he had never seen a drunken Chinaman, a Chinese

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beggar, or a lazy Chinaman. "The Creator of us all," wrote Mr. Miller, "opened the Golden Gate to the whole wide world. Let no man attempt to shut it in the face of his fellow men." But the upshot of the agitation on the Pacific Coast was that in 1882 the Golden Gate was shut, and has since been kept shut in what would strike most people as a harsh if not a brutal manner.

Before anything could be done in this direction, however, it was necessary that the Burlingame Treaty should be abrogated, or at least so much of it as contained the effusive invitation to Chinese immigrants to settle in America. To this end Messrs. Angell, Swift, and Trescott were sent to Peking in 1881 to negotiate a new treaty. Their task was not an easy one, as the Chinese Government was not readily disposed to give up the favoured nation privileges of the treaty of 1868. The American Commissioners pointed out that the great immigration from China which had followed the Burlingame Treaty had subjected the Government of the United States to very grave embarrassments, both from its immense volume and from the fact that in several respects it differed from the immigration from other countries. "Of late years," pleaded the American Commissioners, "the immigration has concentrated itself in cities and come into direct competition with native labourers, making their struggle for livelihood a hard one, and disabling them by their exclusion from accustomed work to discharge those social and political duties which the Government of the United States expects from every one of its citizens. This competition engenders popular discontent, and raises questions which, if left unsettled, may disturb the friendly relations of the two countries. The Commissioners of China will, we are sure, understand how grave a problem it would be for solution by their own Government if one hundred thousand foreign labourers were in a body introduced into the capital, or into any great city of the Empire, to bring their new and strange manners and habits, and take the places of the same number of the native Chinese, whose ability to discharge their duties as subjects by contributing their taxes and fulfilling their other liabilities was in a great measure dependent upon their capacity to maintain themselves and their families by their daily work."

To all this and to the other arguments of the American Commissioners, including the one that only a certain number of Chinese ports were open to Americans, the Chinese Commissioners replied by recalling the invitation extended to Chinamen to immigrate into America contained in the Burlingame Treaty, and by pointing to the part which Chinamen had taken in developing California and the adjoining territories. "In the many years of Chinese immigration to California," urged the representatives of the Emperor, "a hundred lines of enterprise have arisen, and commercial activity has developed

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to an immense extent. The Chinese have given a large amount of their labour to your people, and the benefits of that labour to your country have certainly not been few; but now, because the Chinese do good work for small remuneration, the rabble are making complaints. Since the amount paid the labourer is small, the employer is able to save more, and hence the benefit still inures to the citizen of the United States."

It was undoubtedly true, as the Chinese Commissioners pointed out, that Chinamen in California worked for small wages; and this was just the argument of the labour organisations against their presence there, and it was in obedience to the popular outcry, based upon this argument, that the Commissioners were at Peking to negotiate for a new treaty. There was much further parleying, but the American Commissioners finally carried their point, and the treaty was concluded on November 17th, which has been the basis of all subsequent legislation dealing with the Chinese in America.

The first article of the treaty of 1880 set out that "whenever in the opinion of the Government of the United States the coming of Chinese labourers to the United States or their residence therein affects or threatens to affect the interests of that country, or to endanger the good order of the said country or of any locality within the territory thereof, the Government of China agrees that the Government of the United States may regulate, limit, or suspend such coming or residence, but may not absolutely prohibit it. The limitation or suspension shall be reasonable, and shall apply only to Chinese who may go to the United States as labourers, other classes not being included in the limitation. Legislation taken in regard to Chinese will be of such a character only as is necessary to enforce the regulation or suspension of immigration, and immigrants shall not be subject to personal maltreatment or abuse."

Even before the American Commissioners went to Peking to negotiate the 1880 treaty, Congress had passed an Act restricting immigration from China; but the Supreme Court at Washington, which decides the constitutionality of all laws, State and Federal, had declared it invalid, owing to its contravention of the Burlingame Treaty. The Peking Treaty was proclaimed in the United States in October, 1881, and in the ensuing Session of Congress an Act was passed prohibiting the Chinese immigration for a period of twenty years. This Act, however, was vetoed by President Arthur. He accepted it as an expression of the opinion of Congress that the coming of Chinese labourers and their residence in the United States endangered good order throughout the country; but in his message to the Senate the President pointed out that the Act altogether exceeded the concession China had made in 1880, when it was agreed that the United States might "regulate, limit, or suspend the

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coming of Chinese labourers," but that "it should not absolutely prohibit it," and that "the limit or suspension should be reasonable." The President's message was marked by consideration for the rights of Chinese under the treaties of 1868 and 1880, and contained a noteworthy tribute to the work of the Chinese immigrants on the Pacific Coast. "No one," wrote President Arthur, "can say that the country has not profited by their work. They were largely instrumental in constructing the railways which connect the Atlantic with the Pacific. The States of the Pacific slopes are full of evidences of their industry. Enterprises profitable alike to the capitalist and to the labourer of Caucasian origin would have been dormant but for them. A time has now come when it is supposed they are not needed, and when it is thought by Congress and by those most acquainted with the subject that it is best to try to get along without them. There may, however, be other sections of the country where this species of labour may be advantageously employed without interfering with the labours of our own race. In making the proposed experiment it may be the part of wisdom as well as of good faith to fix the length of the experimental period with reference to this fact."

President Arthur's suggestion was accepted by Congress, and the Act was so altered as to provide for the exclusion of Chinese labourers for a period of ten years. This measure, however, did not work at all satisfactorily, and it was greatly added to and amended by another Act passed in July, 1884. Under this amended Act Chinese immigration was suspended for a period of ten years, and Chinese other than labourers who desired to visit America had to obtain permission of and be identified by the Chinese Government and receive a certificate from that Government. If the intending visitor were a merchant from China, the certificate had to set out "the nature, character, and estimated value of the business carried on by him prior to and at the time of his application to his Government for a certificate." If the applicant desired to travel for curiosity, it had to be stated in the certificate whether he intended to pass through or travel within the United States, together with his financial standing at home. All these certificates had to be vised by the diplomatic representative of the United States in the country in which they were issued, or by the consular representative of the United States at the port or place from which the holders of the certificates were about to embark, and the diplomatic or consular representative was charged with the duty of examining into the truth of the statements set forth in the certificates. The measure provided for heavy penalties against masters of vessels who violated its provisions, and for the issue of certificates by collectors of customs to those natives of China already in the United States who desired to visit their native country and return to America. These

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certificates were to set out the individual, family, and tribal names of the Chinamen to whom they were granted, their ages, occupations and where followed, the last place of residence, physical marks or peculiarities, and all facts necessary for the identification of each and all such Chinese labourers.

The Act of 1884, exacting as were its provisions, failed to satisfy the popular demand for the exclusion of the Chinese, and in September, 1888, during the last year of Mr. Cleveland's 1885-89 Administration, another Act was passed going beyond the Act of 1882, which President Arthur vetoed, and prohibiting Chinese immigration altogether. The Act of 1888 was to apply to all persons of Chinese race, and set out that the words "Chinese labourers," whenever used, should be construed to mean "both skilled and unskilled labourers and Chinese employed in mining." This Act made it unlawful for "any Chinese person, whether a subject of China or of any other power, to enter the United States, except he were a Chinese official, a teacher, a student, a merchant, or a traveller for pleasure or curiosity." It was also provided that no Chinese labourer in the United States should be permitted, after having left, to return, unless he had a "lawful wife, child, or parent in the United States, or property therein of the value of a thousand dollars, or debts of a like amount due to him and pending settlement." "The marriage to such wife," it was provided, "must have taken place at least one year prior to the application of the labourer for permission to return to the United States, and must have been followed by continuous cohabitation of the parties as man and wife." With a view to simplifying the working of this drastic Exclusion Act, it was provided that Chinese certificate holders must not land except at the ports of San Francisco, Portland (Oregon), Boston, New York, New Orleans, Port Townsend, or such other port as might be designated by the Secretary of the Treasury. Ordinary immigrants are landed at twenty-four ports. Among the other clauses of the Act of 1888 was one which provided that in case of a vessel having Chinamen on board coming on shore as a wreck the Chinamen were to be taken away within three days.

The provisions of the Acts of 1884 and 1888 were all carried out with great stringency, but notwithstanding this there grew up a feeling on the Pacific Coast that further legislation was necessary to prevent Chinamen smuggling themselves into the United States across the Canadian border, and to prevent the misuse of certificates issued under the provisions of the Exclusion Acts. Accordingly in May, 1892, in the last year of Mr. Harrison's Presidency, the Geary or the Registration Act was passed. It continued all the existing laws against the Chinese for another period of ten years, and contained new regulations applicable to all Chinamen lawfully in the

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country. There were at this time, it was estimated, some 107,000 Chinamen in America, and under the provisions of the Geary Act all Chinamen, except capitalists, merchants, and other employers of labour, were compelled to appear in person at the office of the Federal collector of internal revenue in their neighbourhood and register, "the certificates of which registration shall be evidence of their right to remain in the country." The Treasury instructions for carrying out the Geary Act as originally drawn up called upon each Chinaman to lodge his photograph at the office where he was registered; but this provision was abandoned before May 5th, 1893, the date when the Act went fully into force. Failure to register rendered the Chinaman liable to imprisonment, and forcible deportation to China at the end of the term. The Registration Act caused a great outcry, especially in the Eastern States, where the feeling against Chinamen was never quite so strong as it was on the Pacific Coast. Only a few people were disposed to question the wisdom of restricting immigration from China; but there was a very strong feeling that the Act of 1892 was totally at variance with the provisions of the Pekin Treaty of 1880. This treaty, it will be remembered, while giving the United States Government the right "to limit, regulate, or suspend" Chinese immigration, stipulated that "if Chinese labourers or Chinese of any other class now either permanently or temporarily residing in the United States meet with ill-treatment at the hands of any other persons, the Government of the United States will exert all its power to devise measures for their protection and to secure to them the same rights, privileges, immunities, and exemptions as may be enjoyed by the citizens or subjects of the most favoured nation, and to which they are entitled by treaty."

Here and there a few Chinamen complied with the Geary Law; but the overwhelming majority of them, acting on the advice of the Chinese organisation in San Francisco, known as the Six Companies, failed to register before the 5th of May. As the Federal authorities learned that the Chinamen had determined upon testing the constitutionality of the new law, no immediate general attempt was made to deal with those who had not complied with its provisions. In New York, where there is a large Chinese colony, three Chinamen who had failed to register were arrested by the United States Marshal in order that the constitutionality of the law might be tested by the Supreme Court at Washington. The case was remitted from the Federal Court of the Southern district of New York to the Supreme Court, and on May 15th, 1893, the Supreme Court pronounced in favour of the validity of the Geary Act.

Five out of the eight judges who were on the bench at the time concurred in the decision; the other three judges dissented. Mr.

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Justice Gray delivered the judgment of the Court. In this it was stated that it was one of the fundamental principles of the law of nations that every independent nation had the inherent right to keep aliens out of its territory, and to order them out of its territory. As to the alleged conflict between the Geary Law and the treaties existing between the United States and China, the Court held that if Congress made a law inconsistent with a treaty, it might give a foreign nation the right to complain, and to take such action as it might deem fit for its own interests; but the duties of the Courts of the United States were clear, and they must recognise the force of the law.

The three dissenting judges held that the law was unconstitutional. Chief Justice Fuller entertained no doubt that while the Federal Government was invested, so far as foreign countries were concerned, with all the powers necessary to the maintenance of its absolute independence and security, it could not in virtue of a supposed inherent sovereignty absolutely deal with persons lawfully and peacefully within its dominion. "The Act before the Court," he continued, "was not an Act to abrogate or repeal a treaty, nor to expel Chinamen lawfully here, and no such intent could be imputed to Congress. Its object was to prescribe a method of registration, and the deportation by way of punishment was in his view an unusual punishment not authorised by the Constitution." Mr. Justice Brewer argued that if the Geary Act were upheld there was no guarantee that a similar treatment might not be accorded to other classes of the population of the United States than the Chinese. Mr. Justice Field took the same view. "As men having our common humanity," he said, in reference to the Chinese labourers, "they are protected by all the guarantees of the Constitution. To hold that they are subject to any different law or are less protected in any particular is, in my judgment, against the teachings of our history, the practice of our Government, and the language of our Constitution."

After the constitutionality of the law had been put beyond question by the judgment of the Supreme Court at Washington, further proceedings were taken in the Federal Court, in New York, in order to determine how the provisions of the Act were to be carried out. It was then discovered that while the United States Marshals and other Federal officers were authorised to arrest Chinamen who were without registration certificates, Congress had made no provision for the cost of deporting the defaulting Chinamen to their own country. Consequently, the three Chinamen who had been arrested in New York were at once liberated, and the Geary Act had to remain in abeyance pending the action of Congress either in providing large funds for its administration or in repealing the law.



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As was stated at the outset, it was not until 1875 that the first United States law was passed with a view to excluding any class of immigrants. Prior to that time the Federal Government had asked no questions whatever as to the present condition, character, or antecedents of the immigrants arriving at its ports. All comers had been welcome. In March, 1875, however, Congress passed an Act excluding women imported for an immoral purpose, and all persons who had been convicted of felonious crimes, and whose sentences had been remitted on condition of their emigration. In this Act, as in subsequent Acts, Congress was careful to make an exception in favour of persons who had been sentenced for political offences, or who had been convicted of crimes arising out of political offences. That part of the Act dealing with women of an undesirable class was aimed mainly against those coming to the Pacific Coast from China—at the wretched camp followers of the great army of Chinese immigrants which was settling itself in California and in the neighbouring territories as the result of the Burlingame Treaty. The labour organisations had no voice in the demand for the Act of 1875 as they had in the demand for the exclusion of the Chinese, and for the series of Acts directed at immigration from Europe, which has been passed since 1882.

Organised labour first turned its attention to the restriction of immigration in 1882. In that year Congress was dealing with the law applying to vessels in which immigrants are carried, and also with the question of pauper immigration, and was generally overhauling the system of receiving immigrants at the various United States ports. The first of the measures dealt with steamship owners, and greatly increased their responsibilities towards the passengers in the steerage. The second Act established a new system for the reception of immigrants. To meet the expenses of this new arrangement it was proposed by Congress to fix a head tax of fifty cents, to be paid by the shipowners, the proceeds of which were to be used in paying the expenses attendant upon the superintendence of the landing of immigrants, and in relieving such immigrants as were in distress. At this juncture what was then known as the Independent Labour Party first made the suggestion in regard to restricting immigration, which has been again and again repeated by various organisations of labour, but which so far has gone unheeded by Congress. In a petition which was presented to the House of Representatives when the bill of 1882 was under discussion, the Independent Labour Party urged that instead of a head tax of fifty cents, intended simply to cover the expenses of carrying out the law, Congress should impose a tax of one hundred dollars on every immigrant. McKinleyism was unheard of at this time. It was six years later before the Mc.Kinley tariff was adopted; but even in

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1882 the United States had a high protective tariff, a survival from the war times, and the idea of the Independent Labour Party was that, if employers were to be protected by Federal laws, similar protection ought to be afforded to workmen. They argued that if it was necessary to protect the employer from the product of the cheap labour of England and the other European countries, it was only equitable that the workpeople should be protected from the labourers from Europe, who were crowding into America and competing with them in the mines, the factories, and the workshops. This argument, however, had no effect on Congress, and there is no trace in the Act of 1882 of any response to the appeals which the Labour Party made in favour of restriction.

The Act of 1882 provided for the levying of a duty of fifty cents for "each and every passenger, not a citizen of the United States, who shall come by steam or sail vessel from any foreign port to any port in the United States." The duty was to be paid to the United States Collector of Customs at the port of entry, and to constitute an immigrant fund, which was to be used under the direction of the Secretary of the Treasury to defray the expenses of regulating immigration, for the care of the immigrants landing in the United States, for the relief of such as were in distress, and for the general expenses of carrying the Act into effect. The Act also gave the Secretary of the Treasury the supervision of the business of immigration, and officers appointed by him or deputed to act for him were empowered to go on board of and through any vessel bringing immigrants, and if on examination there should be found among the passengers "any convict, lunatic, idiot, or other person unable to take care of himself or herself without becoming a public charge they shall report the same in writing to the collector of such port, and such persons shall not be permitted to land." The expenses of the return of such persons as were not permitted to land, the Act provided, "shall be borne by the owners of the vessel in which they came."

After the Act of 1882 had been in force a short time, it was discovered that the immigrant tax told against American vessels trading between the ports of the United States and the ports of Canada and Mexico, placing them at a disadvantage as regards railway competition. Accordingly, on the 14th of June, 1884, a clause to obviate the difficulty was introduced into an "Act to remove certain burdens of the American mercantile marine." It provided that until the section of the Act of 1882 which levied a tax upon immigrants "shall be made applicable to passengers coming to the United States by land carriage, said provision shall not apply to passengers coming by vessels employed exclusively in the trade between ports of the United States and the Dominion of Canada and ports of Mexico."

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An Act which closed the gates only against convicts, lunatics, idiots, and persons likely to become a public charge, did not satisfy the labour organisations. A demand was raised for another restrictive measure, one which should be directly in the interests of labour. This time the organisations were somewhat more reasonable and more explicit in their demands. They asked for a measure to prevent American employers from making contracts and bargains with workmen and labourers from Europe before they arrived in the country. This demand came principally from the mining regions of Pennsylvania, although the skilled labourers and factory workpeople of the Eastern cities were also in favour of it, and were not slow to take advantage of the law to this end which was passed by Congress in 1885. The Hungarians, Poles, and Italians are the immigrants who have always been regarded as most undesirable by the labour unions, and against these nationalities, particularly against the Hungarians, there has of recent years been as strong a feeling of opposition as there was against the Chinamen on the Pacific Coast. Nearly all the allegations which were made against the Chinamen in the agitation for their exclusion have been made against the Hungarian labourers, who are numerous employed in the coke and iron regions of Pennsylvania. "They will work for little or nothing, live on fare which a Chinaman would not touch, and will submit to any and every indignity which may be imposed upon them." This is the indictment which Mr. T. V. Powderly, of the Knights of Labour, made against them at the time of the agitation for the Contract Labour Law.

Against the Chinaman it had been urged that he could live cheaper than an American labourer, because he was unencumbered with a wife or family. Against the Hungarian at work on the Pennsylvania coal fields, it was urged that he brought his wife and daughters with him and compelled them to help him in underselling the American labourer. "Before Hungarians were imported," said Mr. Powderly, in the speech from which a quotation has already been made, "the task of an ordinary man was to draw five ovens; but the Hungarian takes the contract for six ovens for less money than the American received for five. He compels his wife or grown-up daughters to accompany him to the ovens in a morning, and assist in the work until about noon; after that they may go home." It was objected to the Hungarians, the Poles, and the Italians, that from the nature of things, from their inability to speak English, from their low standard of living, and from their haste to make a little money and leave the country, that they were more likely to become victims to the worst form of the contract system than any other class of immigrants. English and German immigrants occasionally made contracts before they started for America, and

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sometimes these immigrants were introduced when strikes or lock-outs occurred; but the contract system was at its worst in connection with the lower grade of immigrants, and it was against these imported labourers who came in large numbers that the labour unions demanded protection.

Between 1885 and 1888, Congress passed three Acts in response to the demands of the labour unions for protection against contract labourers. The first Act—that passed on the 26th of February, 1885—made it unlawful “for any person, company, partnership, or corporation, in any manner whatsoever, to prepay transportation, or in any way assist or encourage the importation or migration of any alien or aliens, any foreigner or foreigners, into the United States, its territories, or the District of Columbia, under contract or agreement, parole or special, expressed or implied, made previous to the importation or migration of such alien or aliens, foreigner or foreigners, to perform labour or services of any kind in the United States, its territories, or the District of Columbia.” All such contracts were declared to be void, and it was provided that a penalty not exceeding a thousand dollars might be sued for and recovered by the United States, or “by any person who shall first bring his action therefor.” A separate suit could be brought for each alien. The Act also made it a misdemeanour for a ship-master to bring contract labourers, punishable by a fine of not more than five thousand dollars for each labourer so brought. The master might also be imprisoned for a term not exceeding six months. The Act provided that foreigners temporarily residing in the United States might engage other foreigners as private secretaries, and as servants or domestics. “Nor shall this Act,” continues another clause, “be so construed as to prevent any persons from engaging, under contract or agreement, skilled workmen in foreign countries to perform labour in the United States, in or upon any new industry not at present established in the United States, provided that skilled labourers for that purpose cannot be otherwise obtained; nor shall the provisions of the Act apply to professional actors, artists, lecturers, or singers, nor to persons employed strictly as personal or domestic servants.” “Provided also,” set out another exempting clause, “that nothing in this Act shall be construed as prohibiting any individual from assisting any member of his family, or any relative or personal friend, to emigrate from any foreign country to the United States.”

Two years later, in 1887, another Act of Congress was passed, charging the Secretary of the Treasury at Washington with the duty of carrying out the Contract Labour Act of 1885, and empowering his representatives to go on board incoming vessels, and if they should find “any persons included in the prohibition in

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this Act, they shall report the same in writing to the collector of such port and such persons shall not be permitted to land." The Act was passed on the 23rd of February, 1887, and came into operation in March of the same year.

Under the Act of 1885 it was open to any person to bring an action for its infringement, and the courts soon had cases before them in which it was charged by trade-unionists that immigrants had come to the country in pursuance of contracts made with employers before sailing. In a few cases, at the instance of the courts, the men were sent back to the port from which they had sailed. The number of immigrants so returned, however, was small in comparison with the number who were refused a landing after the Act of 1887 came into force, and it became the custom for contract labour inspectors in the employ of the Federal Government to board all incoming vessels as soon as they got within the limits of New York harbour. Several hours usually elapse between a steamer's entering the harbour and disembarking her passengers, and it became the practice of the inspectors to spend this time mingling with the intermediate and steerage passengers, using all kinds of underhand means to learn whether any of the immigrants were under contract to work for employers in the places to which they were going. If they were, they were refused a landing, and returned by the steamers by which they came. The length to which this system of detecting immigrants who had made contracts was carried was shown by a case which occurred in November, 1892. There was a strike on at a Pittsburgh glass factory, and the unionists expected that men would be brought over from Belgium to take the places of those who were out. Accordingly every incoming steamer from Belgian ports was watched by the contract labour inspectors. One of these officers boarded the Antwerp steamer "Friesland," and went about among the male passengers carefully noting the lips of each for the callosities which are the result of long use of the blow pipe. He picked out a number of men by this sign, and was greatly commended by several of the newspapers in New York for his smartness. The men so picked out were glass blowers, but the inspector was unable to make out a case under the Contract Labour Laws, and after about a week's detention at Ellis Island, where the immigrants arriving at New York are passed by the Federal inspectors, the men were permitted to go about their business.

The stringency with which the Contract Labour Laws have been carried out since 1887 is shown by the fact that in the year ending June 30th, 1892, 932 immigrants coming within the provisions of the laws were sent back to Europe. Of this number, 832 were refused a landing at New York. Almost every steamer which

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arrives at New York takes back several of her passengers in consequence of the alertness and zeal with which the contract labour inspectors carry out their duties.

The Act of 1885, amended as it was by the Act of 1887, still failed to meet the wishes of the advocates of restriction, and in March, 1891, another Act was passed dealing in a more far-reaching manner with contract labourers, and also imposing new restrictions on the methods adopted by steamship companies in stimulating the emigrant passenger trade. One of the clauses of the Act of 1892 provided that "it should be deemed a violation of the Contract Labour Law of 1885 to assist or encourage the importation or migration of any alien by promises of employment, through advertisements printed and published in any foreign country, and any alien coming to this country in consequence of such advertisement shall be treated as coming under a contract as contemplated by such Act." Another important section dealt with the advertising of passenger steamship companies. It provided that "no steamship or transportation company or owners of vessels shall directly or through agents, either by writing, printing, or by oral representation, solicit, invite, or encourage the immigration of any alien into the United States, except by ordinary commercial letters, circulars, advertisements, or oral representations, stating the sailings of their vessels and terms and facilities of transportation therein."

Almost immediately after the Act of 1885 went into force, the Church of the Holy Trinity, New York, gave an invitation to the Rev. E. Walpole Warren, of Lambeth, London, to become its pastor. Mr. Warren accepted the invitation, and had hardly taken up his duties when an action was commenced against the church trustees for an infringement of the Contract Labour Law. The action was at the instance of a Scotch society in New York, and was in retaliation for the sending back to Glasgow of several Scotch immigrants through proceedings under this Act. There was no feeling against Mr. Warren, nor against the trustees of Holy Trinity, the only object of the proceedings against the new rector being to give the public an object lesson in the absurdity of some of the provisions of the law of 1885. The action was long drawn out, extremely harrassing to Mr. Warren and his friends, and ultimately resulted in Holy Trinity Church being mulcted in a fine of one thousand dollars. When the Act of 1891 was before Congress, a clause was introduced to prevent actions of this kind, and the exemptions of the Act of 1885 were extended to "ministers of any religious denomination, persons belonging to any recognised profession, and professors for colleges and seminaries." The Act of 1885 permitted an immigrant's passage money to be paid by "any relative or personal friend." In the amended Act of 1891 this

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permission was withdrawn, and persons already in the United States were permitted to pay passage money only for members of their own family.

In the new Act of 1891 an endeavour was made by Congress to meet the complaint of the New York State Board of Charities, a department somewhat similar to the old Poor Law Board which existed in England before the Local Government Board was established, that there were serious defects in the law of 1882 excluding paupers and idiots, and that notwithstanding that Act, large numbers of chronic and helpless paupers were permitted to land, soon to become a charge upon the State of New York. In support of more drastic legislation on these lines, it was stated by the Board of Charities that two-thirds of the paupers in New York State were recruited from a class of immigrants who ought not to be allowed to land. In the new Act it was provided that the following classes of aliens should be excluded—"all idiots, insane persons, paupers, or persons likely to become a public charge, persons suffering from a loathsome or a dangerous contagious disease, persons who have been convicted of a felony, or other infamous crime or misdemeanour, or involving moral turpitude, polygamists, and also any persons whose ticket or passage is paid for with the money of another, or is assisted by others to come, unless it is affirmatively and satisfactorily shown on special inquiry that such person does not belong to one of the foregoing excluded classes, or to the class of contract labourers excluded by the Act of February 26th, 1885."

Another important clause provided that "if any alien become a public charge within one year of his landing from causes existing prior to his landing, his so becoming chargeable shall be deemed to have rendered his coming a violation of the law, and he shall be returned in the same manner as an alien who comes within the classes defined by the Act."

It was this Act of 1891 which created the Emigration Bureau at Washington as a department under the control of the Secretary of the Treasury. An immigrant who is refused a landing by the medical inspectors, who are of the Federal Marine Hospital Service, or by inspectors under the Contract Labour Laws, or by the ordinary inspectors employed by the Treasury Department, has an appeal from these authorities at the port of arrival to the Superintendent of Immigration at Washington, and from the Superintendent to the Secretary of the Treasury, in whose department all matters connected with immigration are included. Until March, 1893, immigration at the port of New York was superintended by a commissioner and an assistant commissioner. By an Act of Congress, passed in March, the offices of these commissioners were

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abolished and a board of four inspectors was constituted, whose duties are to pass on all cases of immigrants detained under the various immigration laws. The favourable report of three of these inspectors is required to pass a detained immigrant.

By the same Act of Congress, additional duties and responsibilities were thrown upon the steamship companies in regard to the conveyance of immigrants. Formerly the interrogatories put to immigrants were administered after they had landed at Ellis Island. Under the Act of 1893, a new form of passengers' manifest was brought into use, and now all passengers on a westward-bound transatlantic steamer, whether in the saloon, in the intermediate cabin, or in the steerage, are compelled to furnish the representatives of the steamship companies with information necessary to the answering of the following questions :—

1. Full name.
2. Age.
3. Sex.
4. Whether married or single.
5. Calling or occupation.
6. Whether able to read or write.
7. Nationality.
8. Last residence.
9. Seaport for landing in the United States.
10. Final destination in the United States.
11. Whether having a ticket through to such destination.
12. Whether the immigrant has paid his own passage, or whether it has been paid by some other persons, or by any corporation, society, municipality, or government.
13. Whether in possession of money, and if so whether upwards of \$30, and how much; if \$30 or less.
14. Whether going to join a relative, and if so, what relative, and his name and address.
15. Whether ever before in the United States, and if so, when and where.
16. Whether ever in prison or almshouse, or supported by charity.
17. Whether a polygamist.
18. Whether under contract, expressed or implied, to perform labour in the United States.
19. The immigrant's condition of health, mentally and physically, and whether deformed or crippled, and if so, from what cause.

Not only has the work of obtaining answers to these questions been thrown upon the steamship companies, but in the event of their bringing an undesirable immigrant they are liable to a fine of \$20,



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besides being compelled to carry the rejected immigrant back to Europe, and maintain him while he is still at New York. The manifest containing the particulars thus ascertained is divided into a number of sheets, no one of which may contain more than thirty names. Each sheet is lettered and numbered, and each immigrant receives a check, or tag, bearing the letter of the sheet on which his name appears, and also his individual number. Towards the end of the voyage the ship's officers are supposed to drill the immigrants into groups of thirty. When they are admitted to the Rotunda, at Ellis Island, the immigrants are compelled to arrange themselves into these groups, and pass before the inspectors in this order. Each group is lettered alphabetically, and one group at a time in the order of lettering is taken by the Ellis Island inspectors. While awaiting their examination the immigrants are detained in railed-off enclosures, and then, in the order of their grouping and numbering, are passed along gangways to the desks of the inspecting officers. These officers have copies of the steamer's manifest before them, and as each immigrant presents himself at the desk, he is called upon to answer a second time the nineteen questions which were put to him by the representatives of the steamship company before he started upon the voyage across the Atlantic. If the answers of the immigrants agree with those sworn to at home, the immigrants are passed on to the contract labour inspectors, and when free of them are allowed to depart. If, however, any discrepancy is found between the answers on the manifest and the verbal ones given at the inspectors' desk the immigrant is marched off to the detention room for further examination. If he can explain the matter to the board of inspectors, he is allowed to leave the island; if he cannot, and the case appears at all a doubtful or an unsatisfactory one, he is returned to the steamer from which he was landed and sent back to Europe.

The inspection by the officers employed under the Contract Labour Laws comes after the interrogatories administered by the ordinary immigrant inspectors, and in this work the inspectors receive considerable help from the various labour unions. Some of the more active of these unions keep up a correspondence with agents abroad, and when they are informed that a party of contract labourers is coming from a particular port, they put the labour inspectors at Ellis Island on the alert, and thus secure the return of the new comers.

Since 1882 there has hardly been a year in which the immigration in some form has not occupied the attention of the United States Congress. It is still the subject of much public discussion, and there is every likelihood that the Fifty-third Congress—the one elected at the same time that Mr. Cleveland was chosen President—will have the question brought before it during the session of 1894.

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Before turning to the present aspect of the immigration question, it may be useful to give some idea of the volume and character of the immigration which the United States has been receiving during the last three-quarters of a century. The figures of the Immigration Department go back to 1830, and the accompanying table shows the number of immigrants arriving by sea during the seven decades between 1820 and 1890:—

From 1820 to 1830 .....	128,393
„ 1830 to 1840 .....	539,391
„ 1840 to 1850 .....	1,423,337
„ 1850 to 1860 .....	2,799,423
„ 1860 to 1870 .....	1,964,061
„ 1870 to 1880 .....	2,834,040
„ 1880 to 1890 .....	5,246,613

As this table shows, one-third of the total immigration since 1820 arrived in the decade between 1880 and 1890. This table does not include arrivals from Mexico and Canada; these do not come under the supervision of the Immigration Department. The falling off in immigration in the 1860 to 1870 decade was due to the War of the Rebellion.

The nationalities of the five-and-a-quarter million immigrants arriving between 1880 and 1890 were as follows:—

Germany .....	1,452,970	Denmark .....	88,132
England .....	657,488	Switzerland .....	81,988
Ireland .....	655,482	China .....	61,711
Sweden and Norway ..	568,362	Netherlands .....	53,701
Austria-Hungary .....	353,719	France .....	50,464
Italy .....	307,309	Belgium .....	20,177
Russia and Poland ....	265,088	All others .....	480,153
Scotland .....	149,869		

The sexes of the immigrants are set out in the accompanying table:—

Country from which Arrived.	Males.	Per cent Males of Total	Females.	Per cent Females of Total.	Total.
Germany .....	836,290	57·6	616,680	42·4	1,452,970
Ireland .....	334,229	51 0	321,253	49·0	655,482
England .....	395,273	61·8	249,407	38·7	644,680
Sweden and Norway .....	346,862	61·0	221,500	39·0	568,362
Italy .....	243,923	79·4	63,386	20·6	307,309
Russia, including Poland ..	174,481	65·8	90,607	34·2	265,088
Austria .....	142,221	62·9	83,817	37·1	226,038
Hungary .....	94,243	73·8	33,438	26·2	127,681
Scotland .....	92,252	61·6	57,617	38·4	149,869

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The age at which immigrants arrive is shown by the following figures:—

Country from which Arrived.	Under 15 Years.		From 15 to 40 Years.		Over 40 Years.		Total.
	No.	%	No.	%	No.	%	
Germany .....	386,934	26·6	904,002	62·2	162,034	11·2	1,452,970
Ireland .....	92,308	14·1	515,089	78·6	48,085	7·3	655,482
England .....	151,315	23·5	420,303	65·2	73,062	11·3	644,680
Sweden and Norway.	104,254	18·3	414,609	73·0	49,499	8·7	568,362
Italy .....	47,063	15·3	212,475	69·2	47,771	15·5	307,309
Russia .....	65,427	24·7	174,754	65·9	24,907	9·4	265,088
Austria .....	50,020	22·1	149,909	66·3	26,109	11·6	226,038
Scotland .....	36,192	24·2	97,819	65·2	15,858	10·6	149,869
Hungary .....	18,785	14·7	95,635	74·9	13,261	10·4	127,681

From the table showing the sex of the immigrants, it is easy to distinguish the general character of the immigration. The figures for Ireland, England, Germany, Sweden, Norway, and Scotland seem to indicate that families keep together, as the percentage of males and females is almost equal. Those for Hungary and Italy disclose the greatest disparity between the sexes, and help to substantiate the complaint of the labour unions against the Hungarian and Italian labourers that they do not come to the United States to settle, but to make a little money and hurry back to their native land as soon as the object of their stay is accomplished.

The occupations of the immigrants arriving between 1880 and 1890 are given in a general way in the following table:—

Classes of Occupations.	Males.	Females.	Total.
Professional .....	25,257	1,749	27,006
Skilled .....	514,552	25,859	540,411
Miscellaneous .....	1 833,325	245,810	2,079,135
Not stated .....	73,327	42,830	116,157
Without occupation .....	759,450	1,724,454	2,483,904
Total .....	3,205,911	2,040,702	5,246,613

In spite of all the restrictions and regulations which were in force in 1892 with a view to restricting immigration, and especially those intended to prevent the steamship companies from picturing America as El Dorado, the number of immigrants was nearly 600,000. The

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exact figures were 579,663, of whom 445,987 were landed at New York, 55,870 at Baltimore, 32,352 at Boston, and 30,703 at Philadelphia.

The occupations of this vast army of new comers were as follows:—

Occupation.	Number.	Occupation.	Number.
Architects .....	99	Machinists .....	2,326
Brewers .....	764	Millers .....	933
Butchers .....	2,723	Musicians .....	754
Barbers .....	1,121	Painters .....	2,079
Bakers .....	2,506	Peddlers .....	2,683
Blacksmiths .....	2,508	Plasterers.....	322
Bartenders.....	392	Porters .....	299
Bricklayers .....	1,319	Potters .....	225
Carpenters .....	5,201	Printers .....	802
Cabinetmakers .....	1,844	Saddlers .....	733
Confectioners .....	443	Shoemakers.....	4,766
Cigarmakers .....	2,653	Spinners .....	629
Cooks .....	594	Tailors .....	9,274
Coopers .....	500	Tanners .....	610
Farmers.....	51,630	Tinplate-workers .....	3
Florists .....	264	Tinsmiths .....	971
Gardeners .....	954	Wagon-smiths.....	524
Hatters .....	796	Weavers .....	2,462
Ironmoulders .....	1,001	Waiters .....	991
Labourers .....	171,483	All other occupations .....	31,381
Locksmiths .....	1,565	No occupation, including	
Laundrymen.....	29	women and children .....	255,832
Masons .....	3,709		
Miners .....	6,966	Total .....	579,663

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In a measure, but only imperfectly, the next table shows how this vast immigration—in numbers larger than the population of Manchester—distributed itself over the various States and Territories:—

State and Territories.	Number.	States and Territories.	Number.
Alabama.....	409	New Hampshire.....	1,215
Alaska.....	4	North Carolina .....	331
Arizona .....	225	North Dakota.....	2,525
Arkansas .....	442	Nebraska .....	5,768
Connecticut .....	8,642	Nevada .....	626
Colorado.....	2,018	New Jersey .....	16,665
California .....	10,936	New Mexico.....	340
Delaware .....	754	New York .....	242,668
District of Columbia .....	861	Ohio .....	15,040
Florida .....	4,829	Oregon .....	1,192
Georgia .....	390	Oklahoma .....	6
Indiana .....	3,407	Pennsylvania .....	83,414
Indian Territory .....	314	Rhode Island .....	4,385
Illinois .....	46,012	South Carolina .....	241
Iowa .....	8,066	South Dakota .....	1,666
Idaho .....	343	Tennessee.....	551
Kentucky .....	1,046	Texas .....	3,097
Kansas .....	3,552	Utah .....	611
Louisiana .....	4,062	Vermont .....	759
Maine .....	1,111	Virginia .....	502
Maryland .....	7,286	West Virginia.....	985
Michigan .....	14,630	Wisconsin .....	16,066
Missouri.....	5,544	Washington.....	1,236
Minnesota .....	12,740	Wyoming.....	571
Mississippi.....	349		
Montana .....	1,244	Total .....	579,663
Massachusetts .....	39,987		

In the foregoing table, the destination of 242,668 immigrants is given as New York State, and 39,987 as Massachusetts. It does not follow, however, that anything like these numbers settled in those States. A large proportion of the immigrants booked to New

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York and Boston had no definite destination in mind at the time of embarking. The majority of them would soon be compelled to go further afield.

Among the other statistical tables drawn up by the Commissioner of Immigration at Washington is one showing the money brought by immigrants. An immigrant must have at least ten dollars on landing; otherwise he is refused under the provisions of the Act of 1882, excluding paupers and persons likely to become public charges. In the six months ending June 30th, 1892, 152,360 immigrants over twenty years of age arrived at New York, bringing with them a total sum of \$3,060,908, or an average of \$20.09, or a little over £4 each. Those from France brought the largest amount of money, the average being \$55.67 each. For the Swiss immigrants, the average was \$44.01; for Welsh, \$43.06; for German, \$35.42; English, \$26.43; Scotch, \$22.77; and Irish, \$15.64. The Hungarians, Poles, and Italians brought less than any other nationalities. For Poles, the average was \$12.31; Italians, \$11.77; and Hungarians, \$11.42. In New York, the Hungarians, Poles, and Italians are known as the "ten dollar immigrants," and much of the popular outcry for the restriction of immigration is aimed at these nationalities.

As to what becomes of these armies of new comers, arriving in larger numbers every year, it would take years of travel and observation to be able to tell, and even then only in a general way. A writer in the *Observer*, a weekly journal of high standing in New York, in discussing this question in the issue for July 6th, 1893, divides the new comers into three classes—those who do not manage, those who manage too much, and those who manage very well.

"Of those who do not manage," he writes, "some need not manage because they are managed. Here on the dock is a large squad of Southern Europeans, nearly all men. They have little but muscle. Somehow they discovered that their muscle was in request here. True enough, they have scarcely landed before agents of large corporations or employment bureaus are on the spot to pick up and forward this usable material. Nearly all of it goes to places where large use is to be made of the pick and spade. After they arrive there, they are still managed. They are housed in hovels owned by the company; boarded in the company's boarding houses; supplied out of the company's stores; and for the remainder, manipulated so as to assist in making the biggest dividends for the stock represented, whether by fair means or foul."

Concerning the second class, he continues, "they consist of persons who come here to escape trouble, or to make or retrieve a fortune. As a rule they regard themselves as too good for menial work, and resemble the growing class of native genteel people who

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burden the community. Since money is the standard of success among us, it cannot in fairness be said that very many of this class ultimately fail to answer the first purpose required by our people."

The writer admits, however, that the vast bulk of immigrants manage excellently. "They come, indeed," he writes, "from necessity but with good will, a worthy aim, a noble zeal, and large hope. Their coming has been prepared. They know whither they are going, and what they want. They either have tickets to their final destination, or money enough to get there, at the advice of friends or safe counsellors. Nearly all the churches of foreign connections have reliable agents at the ports to assist the immigrant at his arrival. To those who go no further than the cities, the bonds of a common nationality and a common religion furnish aid which is essential. Those who go inland are almost certain to bring up among relatives or friends and acquaintances. The husband goes at once to work with his friend. The elder girl finds domestic service. The larger boys find a place in some factory. For the younger children, places are waiting in the public schools. Generally a church of their own creed and of their own tongue is open to them. They are soon at home. If they have ordinary health they are independent from the start; in fact, they begin at once to accumulate. On a moderate but sufficient scale, the surplus earnings go into furniture and clothing suited to their new condition. In a surprisingly short time many have a title to a lot, and soon they have a house of their own to be paid for in time. Then comes the saving of money which shall enable them to buy a piece of land, or start a little business to make them independent citizens."

During the autumn of 1892, and in the early part of 1893, the question of immigration became complicated with the question of quarantine. New York had worked itself up into a state of panic over the cholera scare, and in that city and in other parts of the country there grew up a demand that all immigration should be suspended until it was satisfactorily ascertained that cholera was no longer epidemic in any of the continental European cities. For three months or more in the latter part of 1892 all immigration was suspended in consequence of the President's proclamation issued on the 20th of September. A bill for prohibiting immigration for a year was also submitted to Congress. It was supported in the press and on the platform by those writers and speakers who are in favour of still more drastic legislation against immigration than has been passed by Congress since 1882, and who were anxious to turn the panic to account; but nothing came of the bill. A number of other bills were brought forward dealing with the restriction of immigration, one of which proposed an educational test. As, however, this was the last session of the Fifty-second Congress, and

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as a new Administration was coming into office in March, 1893, it was deemed well to let the new Congress and the incoming Democratic Administration settle the lines on which any further restrictive measures should be drawn.

The movement for restriction, as it now stands, is largely due to the fact that there still exists among the labour organisations, especially among those in which the foreign element predominates, and to some extent outside these organisations, the feeling which led the Independent Labour Party in 1882 to petition Congress to fix a head tax on immigrants of \$100. This suggested tax was intended to be prohibitive, as prohibitive as many of the duties imposed on manufactured articles by the McKinley tariff. To what extent a large head tax like this would have been absolutely prohibitive may be seen from the figures as to the money in possession of immigrants, quoted from the return of the Federal Superintendent of Immigration. Had such a tax been in force in the last half of 1892, or even had each immigrant been obliged to possess such a sum as a condition of landing, only 5,814 out of the 152,360 immigrants over twenty years of age who arrived at the port of New York could have paid the tax, or complied with the condition. Those who advocate such a tax do so in the apprehension that the United States are in danger of becoming over-populated, and that it is necessary to protect future generations from this evil. Another of their arguments is one which was urged against the Chinamen, that exclusion of a low grade of immigration is absolutely necessary to maintain the existing standard of life and comfort among the American working people.

Other advocates of restriction who are not so outspoken, but who aim at the same end, urge that the test as to what constitutes a person likely to become a public charge, should be made more stringent. The possession of ten dollars at landing has come to be regarded as placing an able-bodied immigrant of good antecedents and character beyond the danger of being rejected as a pauper, or as one likely to become a pauper. It is urged that this sum is too small, but those who raise this objection overlook the fact that, under the law of 1891, an immigrant who becomes a public charge within twelve months of his landing is returned in the same way as an immigrant who is discovered to have come in contravention of the Contract Labour Law.

The more moderate advocates of restriction admit that America still needs immigration of the right kind, but insist that the immigrants who are offering themselves in such large numbers should be sifted with greater discretion than is possible under any existing laws. The Italians, the Poles, and the Hungarians give those who take this view most concern. They urge, and with some



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truth, that but a small proportion of the immigrants belonging to these nationalities ever permanently make their homes in the United States and thus become of the American people, and that their influence on the economic and social conditions of the country is not good. An abortive attempt to deal with this class of immigration was made in the last Congress by a bill which, if passed, would have prohibited the landing of any alien "until he shall have made an affidavit and filed the same with the consul or diplomatic representative of the United States resident at, or nearest to the place of residence of the applicant, that his removal to the United States is with the *bonâ-fide* intention of residing there permanently." If this bill had become law, however, it would have been like so many other Acts passed by the United States Congress as well as the State legislatures—altogether inoperative, for it would be utterly impossible to retain any immigrant in the country if he did not desire to stay.

An educational test is also suggested, but not much is likely to come of this suggestion. The Immigrant Department at the United States ports is not the place for the application of a test of this kind. It should be applied at a much later period of the immigrant's connection with the new country—when he seeks naturalisation and is desirous to take upon himself the rights of citizenship in the United States. All that is now necessary for this end is that the applicant for naturalisation should be able to prove before a circuit or a district court that he has resided continuously within the United States for at least five years, and within the State or territory where such court is at the time held one year at least, and that during that time "he has behaved as a man of good moral character, attached to the principles of the Constitution of the United States, and well-disposed to the good order and happiness of the same." All this can be done without the applicant's being able to read the Constitution to whose principles he is attached. It would be no great hardship on immigrants who are anxious to naturalise and exercise the electoral franchise to demand from them that they shall be able to read the language in which the Constitution is written, and when once an educational test of this kind is imposed, the movement for the restriction of immigration will lose much of the support of those people who are apt to confuse the economic and political arguments which are advanced in favour of restriction. There are many Americans who feel that their country has still need of a large immigration, but who side with the restrictive movement because of the disastrous effects which the votes of the illiterate foreign-born citizens have upon municipal and State politics.

*Farmington, Connecticut, July, 1893.*

## A CENTURY OF INDUSTRIAL AND SOCIAL LEGISLATION.

—  
BY GEORGE HOWELL, M.P., F.S.S.  
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**A** CENTURY AGO ! It seems but a short period in the life of a nation, shorter still in the history of the world. Yet how few of us can realise what this England of ours was only a hundred years ago. In the year 1793 France was in the throes of a great Revolution. The year opened with a proposal to appeal to the people with respect to the King, which was rejected. Then the death of the King was decided upon in the Assembly, by ballot. Judgment was pronounced, and on January 21st, 1793, the King, Louis XVI., was beheaded. Soon afterwards, on February 1st, France declared war against England, Spain, and Holland, and on the 11th of the same month, England declared war against France, though Pitt, the English Minister, tried his utmost to avert it. After the death of the King the Revolutionary Tribunal was established ; then the Committee of Public Safety, and soon afterwards Robespierre and his colleagues were invested with dictatorial power and absolute authority. Later, in the same year, the Queen, Marie Antoinette, Philippe Egalité, Madame Roland, and a host of other notable persons, were executed. The Reign of Terror in France lasted from May 31st till July in the following year, 1794, during which period the streets of Paris reeked with the blood of Girondist and Jacobin alike, Marat being assassinated by Charlotte Corday, in July, 1793. In the same year the "little corporal"—Napoleon Bonaparte—first distinguished himself at the siege of Toulon. The war which was kindled in that year continued, with some slight intermissions, till the 18th of June, 1815. For twenty-two years the national life of England, as well as of France and other continental nations, was coloured by the events of the French Revolution, the Reign of Terror, the career of Napoleon, and circumstances connected therewith, or arising therefrom.

The war, or rather series of wars, in which we were engaged, from 1793 to 1815 inclusive, operated most disastrously for our people. We had for some time to bear the brunt of the whole contest for the security of the crowned heads of Europe, against France as a Republic, under a despotism, and under the Empire, and we also became involved in a war with America. In these struggles the energies and resources of England were taxed to the utmost. But the wars

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told upon the community in different ways. The governing classes grew wealthy by such trade as was carried on, by high prices, by the enormous expenditure of the Government, the prizes of war, and the loans which had to be negotiated to carry on the war, and to subsidise foreign States. On the other hand, the great mass of the people were impoverished, general industry was stagnant, wages were low, work was scarce, and provisions were high in price. Homes were rendered desolate; privation and misery bred discontent, and tumults arose in various places. These were put down as ruthlessly and cruelly as were the armies of Napoleon on the battlefields of Europe. For more than a quarter of a century the people were despoiled by the ravages of war, by the huge debt which was piled up, by burdensome taxation, by the high price of provisions, the 4lb. loaf having risen in price to 1s. 11½d. at one period, in consequence of bad harvests and closed ports to the importation of corn, while industry was everywhere crippled. The masses were, indeed, reduced to abject poverty, and every effort was made to reduce them to political servitude. The poor rates were used to keep down wages, and savage penal laws to keep down discontent. The cravings of hunger were heard, but were too often disregarded, until civil strife was imminent, when doles of bread and soup were dispensed.

For some years prior to 1793 there had been peace and industrial progress. The cotton and woollen trades had developed by recent inventions; manufacturers and merchants had prospered by commerce and trade; and many had grown wealthy by new and thriving industries, and by foreign and colonial enterprises. A newer life had begun to manifest itself, and the middle classes were clamouring for a share of political power and social recognition. Attempts were made to improve the representation, to lessen the power of the boroughmongers, and infuse a more just spirit into our criminal code. Some of the more daring reformers welcomed the French Revolution as a means to those ends. But the excesses of that Revolution cooled the ardour of many, while others took advantage of those excesses to still further curtail public liberty in this country. Reform was forgotten, or brushed aside; repressive laws were passed; prosecutions were instituted; Habeas Corpus was suspended; the press was attacked; speakers and even preachers were thrown into prison, and some were transported for harmless remarks. The Court and the Parliament were corrupt, and the judgment seat was perverted to base ends. Juries sometimes had the pluck to give a verdict of not guilty in spite of the judge, and of the temper of the Court and Parliament; but generally they were in sympathy with the ruling sentiment, and lent themselves to the ruling despots of the times. Now and again the eloquent voices of the few were raised in Parliament, and outside of it, in protest against wrong

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doing; but they mostly suffered in some way for their temerity. The oppressors have passed away, but the fame of the defenders of liberty remain to us as a precious heritage of those troublous times.

The industrial condition of the masses was worst of all. They had been bereft of the advantages of the old Guild laws and ordinances, and they had lost the protection accorded by law under the Acts of Elizabeth, and some subsequent statutes. But not only had they no protection under those laws, for they were also denied the right of association under the Combination Laws. To these were added the Treason and Sedition Acts, the Corresponding Societies Acts, and Press Laws. Poverty and prosecution were the lot of men who dared to combine. What wonder if incipient revolt and even outrage broke out under such circumstances. The social condition of the people was deplorable; their homes—heaven save the mark!—were dilapidated and filthy; their food was coarse and scanty, and their clothing little else than rags. Education was denied to them, and when they had work their hours of labour were long, and the wages of labour were at starvation rates. And this state of things did not end with the close of the last century, nor with the close of the war in 1815. In many respects the condition of the poor had not much improved up to the year 1840, when elaborate inquiries were instituted into the condition of the population, and of the workers in factories and mines. The work of amelioration was tardy and slow, very slow. But, singularly enough, the first step in a series of Acts was taken in 1793, which have grown into a body of legislation advantageous to the whole people. It is my duty to trace the legislation, under separate heads, from that date to the present time. The space at command will only permit of a very brief summary, but the course of that legislation will be so far indicated that the reader will be able to fill in the outline for himself.

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## I.—ENABLING LEGISLATION.

THE series of measures comprised in this class are manifold in character, and varying in their nature; they are none the less far-reaching in their effects, and important in their results.

### A. FRIENDLY SOCIETIES—1793 TO 1893.

THE first Act of this group was passed in 1793, the 33 Geo. III., c. 54. It was very properly called "An Act for the Encouragement and Relief of Friendly Societies." The fact is that the germ of the friendly society is to be found in the old Guild system; the relief of

distress, succour and support in illness, and the burial of the dead were integral parts of that system. When the Guild existed no longer methods were found to carry out these objects in another form, though less organised and not so effectual. Legislation was resorted to with the view of restoring, or, as the Act says, "encouraging" a more systematic and permanent form of mutual relief. The Act was amended in 1795, and again in 1803. In 1796 a similar Act was passed by the Irish Parliament; this was amended by the 49 Geo. III., c. 58, in the year 1809, by the House of Commons of the United Kingdom. In the same year the first Act was again amended—49 Geo. III., c. 125.

In the year 1811 two Acts were passed, one for England and Wales, and one for Scotland, giving protection to members of friendly societies who were engaged in military duty as militiamen. In 1817 the first Savings Bank Act was passed, enabling friendly societies to deposit their funds in such banks. In 1819 an "Act for the further Protection and Encouragement of Friendly Societies, and for preventing frauds and abuses therein," was passed. In 1825 an Act was passed relating to infants and lunatics, protecting their rights as members of friendly societies; and in 1828 one relating to the administration of estates, legacies, and money in savings banks. In the year 1829 the Acts relating to friendly societies were consolidated and amended—10 Geo. IV., c. 56. This Act was amended in 1831-2, and again in 1833, as regards investments, and again in 1834. In 1834 the Building Societies Act was passed, an outgrowth of the former Acts; while in 1840 the Act of 1829 was further amended. In 1846 an Act was passed which exempted friendly societies from the Corresponding Societies Act, and other Acts, and enabled such societies to establish branches, up to which time they were merely local benefit clubs. In this Act was inserted the famous frugal investment clause.

From 1846 those societies were permitted a further development. In 1847-8 a further amendment of the law was effected as regards the investment of funds in the savings banks, Ireland; and in 1849 regimental benefit societies were established by law. In the year 1850 the existing laws were consolidated by the 13 and 14 Vict., c. 115, but it was only a temporary Act. That Act was continued by cap. 65, in 1852. The laws relating to investments were amended in 1853, and, as regards Ireland, in 1854. In the same year (1854) the Act of 1850 was further continued, and amendments were made in the law, by four other Acts, having reference to the militia and volunteer forces, and some other matters.

In the year 1855 the laws relating to friendly societies were consolidated and amended by the 18 and 19 Vict., c. 63, which Act continued to be the principal Act until they were again consolidated

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in 1875. The Act of 1855 was amended in 1858; and again in 1859, as regards seamen. It was further amended as regards members of volunteer corps in 1860; and in the same year by two other Acts, one relating to investments. Further Acts were passed in 1861, two in 1863, and one in 1864. These four Acts had reference to the administration of estates, and volunteers. In the year 1866 the privileges of the Friendly Societies Acts were restored to societies for the assurance of cattle, &c., by 29 and 30 Vict., c. 34; and in 1873 provision was made for members in the Royal Naval Volunteer Force.

In the year 1875 the laws were again consolidated and amended, by the 38 and 39 Vict., c. 60, which is now the principal Act in force. Since 1875 twelve Acts have been passed effecting several amendments in 1876, repealed in 1877; in 1879, repealed; two in 1882, one repealed; in 1883, 1884, 1885, latter repealed; in 1887 and 1888 two, one repealed; and one in 1889. Friendly societies are now governed under fourteen Acts, or portions of Acts, five of which date prior to 1875, relating to investments, policies, assurance, and savings banks; and seven subsequent to that Act. Of the latter three, the Acts of 1877, 1882, and 1888 relate to investments; one, 1883, to nominations; one to summary proceedings, and two amend certain clauses in the Act of 1875. In Session I. of last year, 1893, the writer of this article carried an Act, the 56 and 57 Vict., c. 30, to amend the Friendly Societies Act, 1875, by restoring the rights of arbitration in cases of dispute, under § 22 of the principal Act, which had been over-ridden by a recent decision in the House of Lords. Whatever defects may exist in those Acts they have assisted to develop institutions in our midst such as no other country in the world can boast of. Their operations are on a gigantic scale; their membership is immense, their funds are enormous, and their influence for good is vast and far-reaching. They are self-governed, self-sustained, and mutual-help associations.

## B. BUILDING SOCIETIES—1829 TO 1893.

BUILDING societies are an outgrowth of, and an offshoot from, the legislative measures for the encouragement of friendly societies. The first germs of legislative sanction are to be found in the 10 Geo. IV., c. 56 (1829), and the 4 and 5 Wm. IV., c. 40 (1834). But those Acts only gave a negative sanction to this form of self-help, as an object that was not unlawful, and was therefore permissible.

The first Building Societies Act was passed in 1836—the 6 and 7 Wm. IV., c. 32—"An Act for the Regulation of Benefit Building Societies." The preamble recites that such societies had been

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established in different parts of the kingdom, principally amongst the industrious classes, for the purchase of small freehold or leasehold property, and that it is expedient to afford encouragement and protection to such societies, &c. The Act then confers the power, and applies the provisions of the two above-mentioned Acts.

Between the years 1836 and 1874 fifteen other Acts were passed, all of which applied to benefit building societies in one or more of their provisions; these had reference to legal proceedings, stamp duties, and other details relating to management, as altered by legislation subsequently to 1836.

The Acts at present in force are: 6 and 7 Wm. IV., c. 32 (1836). The 33 and 34 Vict., c. 97 (1870), relating to stamp duties. The 37 and 38 Vict., c. 42 (1874), the principal Act now in force, and which repealed the Act of 1836 except in so far as it applies to any society established prior to 1874, and which did not incorporate under the Act of that year. The 38 and 39 Vict., c. 9 (1875), substituting a new clause for § 8. The 38 and 39 Vict., c. 60 (1875), as to registration. The 40 and 41 Vict., c. 63 (1877), as to change of office, actions at law, &c.; and the 47 and 48 Vict., c. 41, as to disputes, &c. (1884).

In the present year (1893) four Bills were introduced to amend the law, all of which were referred to a Select Committee of the House of Commons. The Government Bill was amended and reported to the House, but it was abandoned towards the close of the session by reason of opposition to some of its clauses. The other three Bills were dropped.

## C. LOAN SOCIETIES—1835 TO 1893.

THE Loan Societies Acts also grew out of Friendly Societies Acts legislation. The first Act was passed in 1835, the 5 and 6 Wm. IV., c. 23. In the following year, 1836, the Act was extended to Ireland, but on a better and surer basis. Then came the Act of 1840—the 3 and 4 Vict., c. 110, “An Act to Amend the Laws relating to Loan Societies”—for one year only. This Act was continued yearly until 1853, when it was continued for three years. It was again extended until the year 1863, when, by the 26 and 27 Vict., c. 56, the Act of 1840 was made perpetual. The Act was slightly amended in 1875, and again in 1888, as to registration, and the transfer to County Councils of the business of Quarter Sessions. Loan societies are the least satisfactory of all the Acts under the head of Enabling Law. But the object was a good one, and in Ireland the legal basis was more sound than in the English statutes. To be of any real service and benefit the law will have to be remodelled entirely.

## D. INDUSTRIAL AND PROVIDENT—1850 TO 1893.

Co-OPERATIVE effort preceded legislative sanction and encouragement, and some progress had been made before legal protection was accorded to such efforts. In the Friendly Societies Act, 1850—the 13 and 14 Vict., c. 115—the famous frugal investment clause was introduced, which gave legal sanction to certain forms of co-operative enterprise. This clause gave an impetus to the movement which had already commenced.

In the year 1852 the first Act was passed—the 15 and 16 Vict., c. 31, “An Act to Legalise the Formation of Industrial and Provident Societies” The Act recites the purport of the frugal investment clause in the Act of 1850, and states that many associations for the purposes therein named had been formed. The Act was amended in 1854 by 17 and 18 Vict., c. 25; in 1856 by 19 and 20 Vict., c. 40; and in 1859 by 22 and 23 Vict., c. 53, relating to savings banks. These Acts were repealed in 1862 by the 25 and 26 Vict., c. 87—“An Act to Consolidate and Amend the Laws relating to Industrial and Provident Societies.” This Act carried the objects and the means forward to some extent, and advantageously. In 1866 facilities were given for the insurance of cattle and other animals by the 29 and 30 Vict., c. 34, and the Act of 1862 was further amended in 1867 by the 30 and 31 Vict., c. 117, and in 1871 by the 34 and 35 Vict., c. 80, and by the Friendly Societies Act, 1875—the 38 and 39 Vict., c. 60—in some of its provisions.

The principal Act in force in 1893 was the 39 and 40 Vict., c. 45—“An Act to Consolidate and Amend the Law relating to Industrial and Provident Societies, 1876.” This Act was amended in 1880 by 43 Vict., c. 14, § 8, in so far as the payment of income tax is concerned; in 1883 by the 46 and 47 Vict., c. 47, relating to nominations and cases of intestacy by increasing the amounts from £50 to £100; and in 1884 by the 47 and 48 Vict., c. 43, by the repeal of divers enactments rendered unnecessary by the Summary Jurisdiction Acts, &c. In this session (1893) a Bill to Consolidate the Law relating to Industrial and Provident Societies was introduced by the writer of this article, and was designed to amend the law in several important particulars. That measure has now become law as the 56 and 57 Vict., c. 39. This group of measures has been the most fruitful of good of all the legislation which has grown out of the Friendly Societies Acts. Formerly mining and banking were prohibited; now industrial and provident societies may and do carry on all kinds of industry, and several of them, including banking, most successfully.



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## E. WORKING MEN'S CLUBS.

THOUGH there may be differences of opinion as to the value of workmen's political and social clubs, there can be no doubt as to the advantages of legal protection being accorded to them. They may be registered under either the Friendly Societies Acts or under the Industrial and Provident Societies Acts, and most of the *bonâ fide* clubs are registered. There was a Bill before Parliament this year to compel registration, to which the *bonâ fide* clubs offered no serious objection. It was aimed at bogus clubs chiefly. That Bill was referred to a Select Committee, by whom some of the clauses were made more drastic. This evoked opposition, and the Bill was abandoned.

## F. SAVINGS BANKS, GOVERNMENT ANNUITIES, ETC.—1797 TO 1893.

THE aids to thrift provided by the various kinds of legislation under these heads show a tendency to expand and increase in several directions. It seems that the idea of instituting banks for small savings originated in Switzerland, the first of its kind being established at Berne, in the year 1787. This bank was for domestic servants only. A similar bank was established at Basle in 1792, this one being open to all comers. In the year 1797 Jeremy Bentham proposed the establishment of a frugality bank in England. In 1799 the Rev. Joseph Smith, of Wendover, Bucks, started a benevolent institution on the savings bank plan, the basis being the same as that of trustee savings banks subsequently started in various parts of the country. In the years 1803-4 Miss Priscilla Wakefield opened a charitable bank at Tottenham, near London. In the year 1810 the Rev. Henry Duncan opened a parish bank at Ruthwell, in Scotland, a similar bank being established in Edinburgh in 1814. The movement spread so rapidly that during the next three years many such banks were started both in England and Scotland.

(1) *Trustee Savings Banks, 1817 to 1893.*—The first Savings Bank Act was passed in 1817—the 57 George III., c. 130, "An Act to Encourage the Establishment of Banks for Savings in England." In the same year an Act was passed similar in character for Ireland. Those Acts were designed to encourage thrift among the poorer people, facilities for which were afforded for the safety of the deposits both as regards the constitution of the bank, and the security exacted from the treasurer. In the year 1819 "An Act for the Protection of Banks for Savings in Scotland" was passed, 59 Geo. III., c. 62. Amending Acts were passed in 1818, in 1820, and a still more important one in 1824. In the year 1828 the laws were consolidated and amended by 9 Geo. IV., c. 92. Between the years 1828 and 1862 twenty-four other Acts were passed amending

and extending the before-mentioned Acts, including those Acts which afforded facilities to soldiers and sailors for utilising the savings banks at home and abroad. In 1861 the Post-office savings banks were established, and in 1863 the principal Act now in force was passed. Since that date twenty-seven other Acts have been passed. The Acts relating to trustee savings banks are now grouped under the collective title of "The Trustee Savings Banks Acts, 1863 to 1891," three of which were passed in the last Parliament (1887 to 1891), for the better protection of depositors and the security of their savings, but, at the same time, the interest now given is less than it was prior to that date.

(2) *Post-office Savings Banks, 1861 to 1893.*—The first Post-office Savings Bank Act really originated out of the opposition of the trustees, managers, and officials, principally the latter, to the proposed reforms suggested by the Government for the better management of trustee banks. That Act, 24 and 25 Vict., c. 14, was intituled "An Act to grant additional facilities for depositing small savings at interest with the security of the Government for due payment thereof." The Act was amended in 1863, and again in 1874; also in 1880, in 1887, and in 1891, in the three later Acts by specific provisions, the other provisions applying to trustee savings banks or to both classes of savings banks generally. The Acts specifically relating to the Post-office savings banks are now grouped under the general or collective title of "The Post-office Savings Banks Acts, 1861 to 1891," and consist of six Acts, besides several others relating to such banks, or the provisions of which apply in some particulars. There are in all no fewer than thirty-seven Acts or portions of Acts still in force relating to savings banks. Of these, four relate to seamen and their wages; two to military, and two to naval savings banks. A system of general inspection is now in force relating to trustee savings banks; the Post-office savings banks are under a central department; the investments are under the control of the National Debt Commissioners in both cases. Facilities are afforded to friendly societies, trade unions, and all similar societies to invest their funds in such banks, but it can scarcely be said that they have hitherto been encouraged to do so.\*

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\* In Session I., 1893, a further Act was passed extending the annual limit from £30 to £50. The Government proposal was £100, but the opposition of the banking interest was such that a compromise was agreed to in order to save the Bill. With the consent of the National Debt Commissioners a clause was also introduced into the Industrial and Provident Societies Act, 1893, to enable such societies to deposit without limit, as in the case of Friendly Societies. See 56 and 57 Vict., c. 39, s. 39.

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(3) *Government Annuities*.—As early as the year 1776 an Act was passed to encourage the granting of life annuities by 17 Geo. III., c. 26, but that Act related to provision out of estates for the wealthier classes. Three or four other Acts of the same character followed, but possibly those measures gave rise to the idea, subsequently elaborated in the 10 Geo. IV, c. 24, in 1829, to afford facilities to the working classes to provide such annuities in connection with the savings banks system. Other Acts relating to annuities were passed in 1832, in 1833, in 1853, in 1864, in 1873, in 1882, and in 1887, all of which Acts are now collectively known under the short title of "The Government Annuities Acts, 1829 to 1887." The object of these Acts is to enable thrifty persons to provide annuities by regular periodical payments of small amounts. The rates are somewhat higher than those of joint-stock companies or industrial insurance societies, and other societies; but there is absolute security, which, after all, is the chief thing. Inmeasurable as the advantages of the foregoing legislation have been in promoting thrift among the people, the indirect benefits have scarcely been less, for the legislation enumerated has stimulated private enterprise in the same direction, often with great benefit to the people, but, alas, sometimes also with disastrous failure and gigantic frauds.

## G. THE PAWNBROKERS ACTS—1603 TO 1893.

SINGULARLY enough, the earliest pawnbroker of whom we have an authentic account was Northburgh, Bishop of London, 1354, who was in the habit of lending sums of money to the citizens on pledges, at interest. If at the end of the year they were not redeemed the Bishop, preaching at St. Paul's Cross, gave notice that at the end of fourteen days the pledges, if not redeemed, would be sold. Legislation for the regulation of brokers commenced in 1603, with 1 James I., c. 21. Ten other Acts were passed between that date and 1800, when the business of pawnbrokers was regulated by 39 and 40 Geo. III., c. 99. Some dozen other Acts were passed having reference to pawnbroking up to 1872, when the law was consolidated. The object of the Acts was at once enabling and protective; they enabled the poor to obtain small sums on pledges, and they protected the borrower from being charged beyond a certain rate of interest, and provided also for the redemption of the goods. Unfortunately the practice of pawning is much abused.

## H. PATENTS, REGISTRATION OF DESIGNS, AND TRADE MARKS, ETC.

THE old system of granting patents was in the nature of a monopoly, the Crown granting the privilege to Court favourites, or for gain. Even when the old monopoly could no longer be left undisturbed the cost of a patent was such as to be prohibitive.

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During a period of 217 years from the reign of Queen Elizabeth to the 15th year of Queen Victoria, in 1852, only 14,358 patents were granted. In 1852 the Patent Law Amendment Act was passed, reducing the cost, regulating the modes of payment, and applying one system to the whole of the United Kingdom. The laws were consolidated in 1883 by 46 and 47 Vict., c. 57, covering inventions, designs, and trade marks. That Act was amended in 1884, 1886, and 1888. The cost was greatly reduced, and the modes of payment were made much easier. Those statutes are at once of an enabling and of a protective character, and provision is made for the protection of inventions exhibited at exhibitions, &c.

## I. THE COMPANIES ACTS, PARTNERSHIPS, ETC.

THE laws relating to companies were in the nature of monopolies in former times. Attempts are often made to use them as such even now. The Companies Acts in force mainly date from 1862, but thirty-six Acts apply, dating from 1767 to 1892. These Acts have been woefully abused, and the public have been defrauded and robbed by promoters and directors, and also by a detestable class called "wreckers." But the Acts have enabled great industrial and commercial enterprises to be undertaken which could not otherwise have been attempted. All kinds of insurance—life, fire, marine, cattle, and other risks—are provided for; railways, canals, ships, and other transit; gigantic manufacturing and trading businesses are carried on, and we seem to be fast drifting into limited companies for everything, to the annihilation of the individual trader and employer. The law alone can protect the public in the case of limited companies.

## J. TRADE UNIONS.

ALL the earlier legislation relating to labour, for nearly six centuries down to the year 1824, was adverse to the workmen. The Law of Conspiracy, 28 Edw. I., c. 10, and subsequent statutes of the same kind; the Statutes of Labourers; the laws relating to sedition, to public assemblies, the Combination Laws, specifically so called; the Corresponding Societies Acts, and various other Acts were all used to prevent all associative efforts by workmen to ameliorate their condition. Singularly enough, those earlier and some later Acts were alleged to be levelled against the restraint of trade, whereas they were really so interpreted and administered as to be used in restraint of liberty, and they, with other laws in force, were employed to shackle trade and prevent working people from associating together to protect their rightful interests, and promote their welfare by mutual aid. The only break in that long series of disabling Acts was in the reign of Queen Elizabeth, when she passed an Act embodying many of the best Guild ordinances which had been more

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or less in favour of labour. But these were gradually rendered obsolete or were disregarded, and the provisions were repealed before any attempt was made to give freedom of association to workmen.

The Combination Laws were repealed in 1824-5, that Act being amended and explained by the 22 Vict., c. 34, in 1859. The first Act passed in favour of trade unions as such was the temporary Act in 1869, the 32 and 33 Vict., c. 61, giving protection to their funds. The Trade Union Act, 34 and 35 Vict., c. 31, was passed in 1871; but even then a restraining Act was also passed in the same session, lest the former Act should give too much power to associations deemed to be dangerous combinations. In the year 1875 the Labour Laws were passed, repealing the provisions of the old Master and Servants Acts, and also the Conspiracy Laws, in so far as they related to trade disputes. In 1876 a useful Act was passed amending the Trade Union Act, the 39 and 40 Vict., c. 22. In 1883 the right of nomination was further provided for in all friendly and other similar societies; and in the present year (1893) the provident funds of trade unions were exempted from income tax, on the same lines and to the same extent as friendly societies, and other societies of a like character, by the 56 Vict., c. 2, introduced and carried by the present writer. The legislation as regards labour and trade unions is both enabling and protective, and it marks the era of progress during the last twenty-five years. A quarter of a century ago trade unions were denounced and tabooed—were even threatened with suppression; to-day they are recognised as a powerful social force.

## K. ARBITRATION AND CONCILIATION IN TRADE DISPUTES.

THE first Act in favour of arbitration as a mode of settling disputes was passed in 1603, the 1 James I., c. 10, now 290 years ago. Several other Acts were passed of a like character, or amending former Acts, before the principle was applied to labour disputes. The first Act having reference to labour disputes was passed in 1773, being the first of the "Spitalfields Acts," the 13 Geo. III., c. 68. That Act was amended and extended by subsequent Acts. In the year 1800 an Act was passed, 39 and 40 Geo. III., c. 90, extending the principle to the cotton trades. Prior to the year 1824, when the 5 Geo. IV., c. 96, was passed, that being "An Act to Consolidate and Amend the Laws relating to the Arbitration of Disputes between Masters and Workmen," twenty-one Acts were passed, many of which were repealed by the 5 Geo. IV., c. 66, and the others by the later Act of the same year, above quoted. Six other Acts were passed between that date and 1867, either amending the principal Act, extending its provisions, or applying the principle to certain trades.

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In the year 1867 an Act was passed "to establish equitable councils of conciliation to adjust differences between masters and workmen," the 30 and 31 Vict., c. 105; and in 1872 the "Arbitration Act," 35 and 36 Vict., c. 46, was passed. None of those Acts have been really used for the settlement of labour disputes, but the principle has been applied in many cases most successfully. There are at present eight Acts, or parts of Acts, on the statute book relating to arbitration in labour disputes, but they are mostly defective, and require to be consolidated and amended. The law relating to commercial and trading disputes has been admirably consolidated in the Arbitration Act, 1889, the 52 and 53 Vict., c. 49, but the Acts relating to labour disputes are still in a state of chaos. There are provisions in the Friendly Societies Acts, in Building Societies Acts, in Industrial and Provident Societies Acts, and in the Trade Union and other Acts relating to arbitration, so as to prevent litigation, all of which have admirably served their purpose up to the present time. But the arbitration clauses have had to be amended in the present session (1893), because of a decision in the House of Lords which to some extent brought those societies under the Arbitration Act, 1889. This legislation has partaken of the dual character of being enabling and protective at the same time, the effect of which has been most beneficial.

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 PART II.

## PROTECTIVE LEGISLATION.

## 1. THE FACTORY AND WORKSHOPS ACTS—1802 TO 1893.

THE first of this series of Acts was the 42 Geo. III., c. 73, "An Act for the preservation of the health and morals of apprentices and others employed in cotton and other mills, and cotton and other factories," dated June 22nd, 1802. This Act contained provisions relating to sanitation, separate sleeping accommodation for males and females, hours of labour, night work, clothing, inspection, and for instruction in reading, writing, and arithmetic, and instruction on Sundays. The Act was amended in 1819 by 59 Geo. III., c. 66, which provided that no child should be employed in cotton mills under nine years of age, and that no young person under sixteen years should be employed for more than twelve hours per day. It also

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provided for regular meal times. The Act was further amended in 1820 by 60 Geo. III., c. 5, as to hours for dinner, and as to employment by night, in cases where mills were destroyed by fire, &c.

In 1825 the preceding Acts were amended and extended by 6 Geo. IV., c. 63, as to the age and hours of working, hours of work on Saturdays, hour and time for breakfast and dinner, no labour during meal times, sanitation, and provision was made for the prosecution of offenders, convictions, and punishments. This Act was amended in 1829 by 10 Geo. IV., c. 51, and by 10 Geo. IV., c. 63, mainly as to legal proceedings under the Acts. In 1831 all the foregoing Acts, except the first one, were repealed by 1 and 2 Wm. IV., c. 39, other provisions being substituted in lieu thereof. This Act was repealed in 1833 by 3 and 4 Wm. IV., c. 103, the provisions being extended to the "United Kingdom." The last-named Act was explained and amended, in 1834, by 4 and 5 Wm. IV., c. 1, workers in silk mills being included in its provisions, children in such mills, under thirteen years of age, being allowed to work ten hours every day, except Sundays. The laws were further amended in 1844 by 7 and 8 Vict., c. 15, by which date the Factory Acts had assumed a definite form, both as to character and administration.

In 1845, by 8 and 9 Vict., c. 29, the provisions of the Factory Acts were extended to "print works," and included women, young persons, and children. This Act was amended in 1846 by 9 and 10 Vict., c. 18, and in the same year by 9 and 10 Vict., c. 40, certain rope works being excluded from the provisions of the Acts. Then came, in 1847, the famous Ten Hours Act, 10 and 11 Vict., c. 29, "An Act to limit the Hours of Labour of Young Persons and Females in Factories." The Act is dated June 8th, 1847. In the same year the law requiring the attendance at school of children employed at print works was amended by 10 and 11 Vict., c. 70. In 1848 certain provisions of the Public Health Act, 11 and 12 Vict., c. 63, were applied to factories. In 1850, by 13 and 14 Vict., c. 54, and in 1853, by 16 and 17 Vict., c. 104, the Acts were further amended, the latter prohibiting night work for children in all mills and factories under the Acts.

In the year 1856 "The Factory Act," 19 and 20 Vict., c. 38, was passed, and in 1863 bleaching and dyeing works were brought under the operation of the Factory Acts by 23 and 24 Vict., c. 78. In 1861, by 24 and 25 Vict., c. 117, lace works were brought under the operation of the Acts. In 1862, by 25 and 26 Vict., c. 8, the employment of women and children engaged in certain processes of bleaching and dyeing during the night was prohibited. In 1863, by 26 and 27 Vict., c. 38, the provisions of the Bleaching and Dyeing Works Acts were extended to finishing processes. In the same year the Bake-houses Regulation Act, 1863, the 26 and 27 Vict., c. 40, and the

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Alkali Works Act, 1863, the 26 and 27 Vict., c. 124, were passed. In 1864 "The Factory Acts Extension Act," 27 and 28 Vict., c. 48; and a further amendment of the law relating to bleaching and dyeing works, 27 and 28 Vict., c. 98, were passed.

In the year 1866 "The Sanitary (England) Act," 29 and 30 Vict., c. 90, and in 1867 "The Public Health (Scotland) Act," 30 and 31 Vict., c. 101, were passed. In the same year "The Factory Acts Extension Act, 1867," the 30 and 31 Vict., c. 103, was passed, and also "The Workshops Regulation Act, 1867," the 30 and 31 Vict., c. 146. By the 31 and 32 Vict., c. 36, "The Alkali Works Act, 1868," the provisions in the former Act, 1863, were amended. In 1870, by 33 and 34 Vict., c. 62, the Factories and Workshops Acts were amended and extended. In 1871 Jewish workers were exempted from penalties for working on Sundays, by 34 and 35 Vict., c. 19; and in the same year certain provisions of the Factory Acts were extended to workers in brickfields by 34 and 35 Vict., c. 104. In 1874 the Alkali Works Acts were amended by 37 and 38 Vict., c. 43; the Factory and Workshops Act, 1874, 37 and 38 Vict., c. 44, greatly extended and improved the provisions formerly in force as to health, education, and otherwise. In 1875 the Public Health Act, 38 and 39 Vict., c. 55, and the Employers and Workmen Act, 38 and 39 Vict., c. 90, were made to apply in some respects; and in 1876 the County Courts Act, 39 and 40 Vict., c. 75, and the Elementary Education Act, 39 and 40 Vict., c. 79, were made to apply in certain of their provisions.

In 1878 "An Act to Consolidate and Amend the Law relating to Factories and Workshops," the 41 and 42 Vict., c. 16, was passed. This is the principal Act now in force. In the same year the Public Health (Ireland) Act, 41 and 42 Vict., c. 52, was made to apply in certain cases. In 1881 the Alkali Works Acts were consolidated and amended by 44 and 45 Vict., c. 37. In 1883 the law was amended as to white lead factories and bakehouses by 46 and 47 Vict., c. 53. Summary proceedings under the Acts were dealt with in 1884 by 47 and 48 Vict., c. 43; holidays in Scotland, in 1888, by 51 and 52 Vict., c. 22; and cotton cloth factories, in 1889, by 52 and 53 Vict., c. 62. The Factories and Workshops Acts were amended in 1891 by the 54 and 55 Vict., c. 75, and in London by Public Health Act, 54 and 55 Vict., c. 76. In 1892 the Alkali Works Act was amended by 55 and 56 Vict., c. 30; and the Shop Hours Act, 55 and 56 Vict., c. 62, was passed. The series of Acts before enumerated are unparalleled in any country in the world for their fulness and completeness, and their beneficent intentions and results.

## 2. THE MINES REGULATION ACTS—1842 TO 1893.

THERE were numerous Acts passed prior to 1842 with respect to the rights to and the property in mines and minerals, both as



regards Royal or Crown rights and the rights of private owners. There were also many Acts for punishing workmen for offences against those rights, and for regulating the transit of coals to London, and the measurement and sale of such coals. But not one Act was passed for the protection of the miners. An inquiry was instituted into the condition of the mining population in 1840-42 by a Royal Commission. This led to the passing of the 5 and 6 Vict., c. 99, "An Act to Prohibit the Employment of Women and Girls in Mines and Collieries, and to Regulate the Employment of Boys therein," August 10th, 1842. "An Act for the Inspection of Coal Mines in Great Britain," 13 and 14 Vict., c. 100, was passed August 14th, 1850. The law was amended in 1855 by the 18 and 19 Vict., c. 108, and again in 1860 by 23 and 24 Vict., c. 151, both as regards regulation and inspection. In the same year (1860) the Act 23 and 24 Vict., c. 139, relating to the use of gunpowder, was applied to mines; and in 1861 three Acts, 24 and 25 Vict., cc. 96 and 97, relating to offences, and c. 130, relating to the sale and use of gunpowder. In 1862 the law relating to coal mines was amended by 25 and 26 Vict., c. 79; and in 1866, as to foreshores, rights to mines, by 29 and 30 Vict., c. 62, §§ 21 to 25.

In the year 1872 the Acts relating to coal mines were consolidated and amended by 35 and 36 Vict., c. 76, and the law relating to metalliferous mines by 35 and 36 Vict., c. 77. In 1874 metalliferous mines were subjected to rating by 37 and 38 Vict., c. 54. In 1875 three Acts were passed, 38 and 39 Vict., cc. 17, 39, and 55, and in 1878 the 41 and 42 Vict., c. 49. These related to explosives, metalliferous mines, nuisances, and weights and measures respectively. In 1881 the Stratified Ironstone Mines Act, 44 and 45 Vict., c. 26, and in 1882 the 45 and 46 Vict., c. 3, were passed, both relating to the use of powder, &c. The Summary Jurisdiction Act, 1884, the 47 and 48 Vict., c. 43, applied, and in 1886 the Coal Mines Act was amended by the 49 and 50 Vict., c. 40. In 1887 "An Act to Consolidate with Amendments the Coal Mines Acts, 1872 to 1876, the Stratified Ironstone Mines Act, 1881," 50 and 51 Vict., c. 58, was passed, and another in 1891, the 54 and 55 Vict., c. 47, "An Act to Amend the Metalliferous Mines Act, 1872."

The whole of the statutory law relating to mines now in force comprise seventeen Acts, of which five deal with "royal mines," four with offences and procedure, one with coal mines, three with metalliferous mines, two with explosives, one with weights and measures, and one with foreshores. Certain provisions in the Stannaries Acts, relating to Devon and Cornwall, also apply. The protection afforded to miners by the Acts specially relating to them are as important as that afforded by the Factory and Workshops Acts to workers in the trades to which they apply, and reflect credit upon the country

enacting them. Neither of the Bills introduced in 1893 were carried, though one, the Miners' Eight Hours Bill, was read a second time.

### 3. COALWHIPPERS AND BALLAST-HEAVERS.

Of all persons engaged in manual labour one would have thought that coalwhippers and ballast-heavers would have been the last to need protection by law. But for the most part they were hired by contractors, who were either publicans or in league with them. As late as 1852 out of a total of thirty-nine contractors twenty-seven were beerhouse keepers or small tradesmen, so that drinking and "truck" was the rule. Every inducement was held out to drink, and often indirect compulsion was used to do so. Acts regulating the vend of coal in London and the home counties were passed as early as the reign of Queen Anne. Several other Acts were passed in the reigns of Geo. III. and Geo. IV. The 1 and 2 Wm. IV., c. 76, regulated the vend and delivery of coal in London and Westminster and in parts of seven counties. But the first Act to protect the coalwhipper was 1 and 2 Vict., c. 101, August, 1838. Section 12 of that Act provides that the men are to be paid in coin daily, and on board the vessel. Payment at any other place rendered the employer liable to a penalty of £10. In 1843, by 6 and 7 Vict., c. 101, an office for the benefit of coalwhippers was established, under the supervision of a Board of Commissioners. Regulations as to wages, hiring, recovery of wages, and other matters were made, and a fund for their benefit was established. In 1846 the office was transferred to the Board of Trade by 9 and 10 Vict., c. 36, by which it was enacted that no person was to be employed except crews of "colliers," unless such person be registered. The shipmaster was bound to apply at the office for workmen, the rates for unloading being fixed by the statute, whether by individuals or in gangs; if the latter, the mode of apportioning the pay was set forth. But gangs could tender for the job. The men were to be paid on discharge of cargo. The Acts were all temporary in duration, but were renewed year after year, or at periods, until 1856, when the opposition to the Act was so great that further legislation was abandoned. But the coalowners agreed to establish an office, and to carry out the regulations generally. The ballast-heavers were placed under the protection of the Trinity House by Prince Albert, after an inquiry into their case. The result of the regulations as regards these two classes of men was to improve their condition, to decrease drunkenness, and ensure more regular work, at better wages, and shorter hours of labour.

### 4. CHIMNEY SWEEPERS—1789—1893.

THE first Act for the protection of chimney sweepers was passed in 1789—28 Geo. III., c. 48, "An Act for the better regulation of

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Chimney Sweepers and their Apprentices." In 1834 the 4 and 5 Wm. IV., c. 35, was passed with the same title, but with this addition, "and for the safer construction of chimneys and flues." In the year 1840 another Act was passed, the 3 and 4 Vict., c. 85, by which, from and after July 1st, 1842, no child under sixteen years of age was to be apprenticed to a chimney sweeper, and no child was to be compelled to climb chimneys. All indentures of those previously apprenticed were to cease and be void, if the apprentice was under the age of sixteen years. The terrible sufferings of the climbing chimney boys, their suffocation in the flues, and their treatment by their masters had long engaged the attention of public men, and hence the efforts to mitigate, if they could not cure, the evils of the system. But perhaps the greatest boon was the invention of the sweeper's machine, in 1805, by a man named Smart, who was awarded a medal by the Society of Arts. The machine now in use was invented by Joseph Glass, who died in 1868. Neither of the inventors benefited by the invention. Acts relating to chimney construction and other matters were passed in 1844, in 1854, in 1864, and in 1876. In 1893 five Acts, or parts of Acts, were in force relating to chimneys and chimney sweepers. In this session (1893) the law relating to the latter was consolidated and amended. In London the matters of chimney construction, sweepers, and fires caused by foul chimneys, are governed by the Metropolis Management Acts, and in the provinces by the Towns and Police Clauses Acts. Perhaps no more beneficial Act was ever passed than the Act of 1840 to prevent the climbing of chimneys by young boys—parish apprentices, orphans, or the children of drunken parents who cared nothing for their children's welfare. Sometimes the poor little climbers were forced up the flues by being propped with iron pins in the end of long sticks, and sometimes by lighted straw or shavings to force them to the top. Some, being suffocated, even died in the flues, and had to be cut out from the outside.

## 5. BAKERS AND BAKEHOUSES—1800 TO 1893.

Acts for regulating the sale of bread, &c., date back to the time of Henry III., in the year 1266; but the first Act, apparently, which deals with journeymen bakers was the 39 and 40 Geo. III., c. 18, in the year 1800. This Act regulated Sunday work in the Metropolis. In 1835 the provisions were made general by the 6 and 7 Wm. IV., c. 37, but it did not apply to Scotland. In 1863 the Bakehouses Regulation Acts, 26 and 27 Vict., c. 40, was passed, § 107 of which limited the hours of work. In the year 1878, bakers and bakehouses were brought under the Factory Acts as to employment, cleanliness of the bakehouse, &c. The Public Health Acts also

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apply. The condition of bakehouses is not all that could be desired even now, but there is less laxity in administering the law than there was formerly.

## 6. EARTHENWARE FACTORIES AND BRICKFIELDS—1864 TO 1893.

WORKERS in earthenware factories and the pottery trades were brought within the scope of the Factory Acts, in 1864, by the 27 and 28 Vict., c. 48. In 1871 workers in brickfields and brickyards were also brought within the provisions of the Acts by 34 and 35 Vict., c. 104. The wretched condition of the women and children working in the brickfields was a matter of public notoriety. The change effected in their condition since that date is marvellous through the operation of those Acts. As late as 1859 and 1860, Wm Burn, a shoemaker, was appointed secretary of the union, as there was no brickmaker sufficiently educated to correspond and keep the accounts.

## 7. WOMEN AND CHILDREN EMPLOYED IN AGRICULTURE—1867 TO 1893.

In the year 1867 was passed the 30 and 31 Vict., c. 130, "An Act for the Regulation of Agricultural Gangs," fixing the age at eight years, below which children were not to be employed. It also regulated the employment of women. In 1873 the age was raised to ten years for children by the 36 and 37 Vict., c. 67. In 1876 ten years of age was made general by the Elementary Education Act, 39 and 40 Vict., c. 79. In 1878 the Factory and Workshops Acts were made to apply in certain cases. The age is now virtually raised to eleven years by the Act of 1891, although its operation is restricted to factories and workshops, and does not apply to workers whose age is fixed by the Elementary Education Act, 1876.

8. EMPLOYMENT OF CHILDREN IN PLACES OF PUBLIC AMUSEMENT—  
1879 TO 1893.

THE object of this Act is to protect children under fourteen years of age by prohibiting their employment in dangerous performances. Both the employer and the parent or guardian who permits or abets such employment are liable to a penalty not exceeding £10. It also makes the employer liable for injuries up to £20 by way of compensation, and to an indictment for assault in case of injury. In case of dispute as to age the burden of proof rests with the person or persons prosecuted. The recovery of penalties are by the Summary Jurisdiction Acts in England, the Summary Procedure

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Act in Scotland, and the Petty Sessions Act in Ireland. Some relaxation as to employment is permitted in certain cases, but only by previous application to the proper authorities. The value of this Act is undeniable.

## 9. MERCHANT SEAMEN—1729 TO 1893.

ACTS for the protection of British seamen, as regards their wages, commenced with the 2 Geo. II., c. 36. Other Acts were passed, and the first-named Act was made perpetual by 2 Geo. III., c. 31, in 1761. Regulations were also made as regards apprentices, one being allowed to a certain tonnage, and as to forfeiture of wages, and wages due in case of death. All previous Acts were consolidated and amended in 1854 by the 17 and 18 Vict., c. 104. In the same year all the earlier Acts were repealed by 17 and 18 Vict., c. 120. The former Act provides in an elaborate manner for engaging seamen, for payment of wages, allotment notes, inspection of provisions, accommodation, medical attendance, and numerous other matters. It also provided for the seaworthiness of the vessel by § 243. But the facts disclosed by Mr. Sam. Plimsoll, in the years 1872-74, showed that little had been really done either for the safety of the crew, their accommodation, or their food. Since that date several Acts have been passed with the view of making life on board ship a little more endurable. The writer of these notes passed a Load-Line Act in 1891, and an Act for the survey of provisions in 1892. The life of the sailor is now more endurable than it has ever been, and there is a willingness to extend the provisions of the Acts. Towards the close of last session, 1893, a Bill to consolidate the law was introduced. The Bill consists of 434 pages, and purposes to repeal 43 Acts or parts of Acts. It is the largest Bill ever introduced.

## 10. CANAL BOATMEN—1877 TO 1893.

MR. GEORGE SMITH was practically the author of the Act of 1877, the 40 and 41 Vict., c. 60, the object of which was to provide for the registration and regulation of canal boats used as dwellings. Regulations were made by the Local Government Board in 1878. The Bill was amended in 1881, and again in 1882, an inspector being appointed to see that the Acts were enforced. These Acts have brought the children of canal boatmen under the Education Acts, and have made the boats more endurable, from a sanitary point of view, both for the children, the boatmen, and their wives.

## 11. THE PASSENGER ACTS—1842 TO 1893.

THESE Acts are designed to ensure both the safety and the comfort of passengers and emigrants, who are not in a position to pay high rates for accommodation and food. The keen competition of

shipping companies necessitate not only careful but generous treatment on board the steamers and vessels to all parts of the world. But fifty years ago it was different. On passenger ships the crews fare tolerably well as to food, but their accommodation is often deplorably deficient. Legislation encouraged reforms, even where it did not initiate them. Competition for passengers and freights has done much more. We now hear less about food, treatment, and accommodation, but more about wages, though the seamen in some instances still complain about the former. The chief agitation of late has been for an increase of the monthly rates of seamen, and better accommodation for sleeping.

12. ACCIDENTS AND PERSONAL INJURIES; COMPENSATION FOR INJURIES; AND EMPLOYERS' LIABILITY FOR PERSONAL INJURIES TO WORKMEN.

(a) *Accidents and Injuries*.—The object of all legislation under these heads is the prevention of accidents; compensation for injuries is but a subsidiary object. The earliest Act of this series was the 28 Geo. III., c. 57, passed in 1788; amended by 30 Geo. III., c. 36 (1790); by 46 Geo. III., c. 136 (1806); and by 50 Geo. III., c. 48. These Acts regulated the number of persons to be carried on the outside of stage coaches or other carriages, and the conduct of drivers and guards thereon, as to furious driving or racing, to the danger of the passengers. The 1 Geo. IV., c. 4, passed in 1820, made the drivers criminally responsible for accidents occasioned by wilful misconduct. The provisions of these Acts are now embodied in the general Criminal Law. Special provision is also made in sundry Acts, relating to inquiries into the causes of accidents, and of the persons responsible, under the head of Coroner; as to furious driving; as to mines, railways, factories and workshops, merchant shipping, explosives, threshing machines, and insurance, in Scotland.

(b) *Compensation for Injuries*.—Up to the year 1846 no action at law was maintainable against any person who, by his wrongful act, neglect, or default, caused injury and death to another person. By the 9 and 10 Vict., c. 93, all such persons causing injury and death were made answerable for damages for the injury caused. This Act was amended in 1864 by the 27 and 28 Vict., c. 95, but both Acts were limited to cases "of persons killed by accidents." The operation of the Act was subsequently further limited by a decision in the courts as regards workmen by what is known as the Common Law "doctrine of common employment." So far the object of the Act was frustrated.

(c) *Employers' Liability*.—The object of the Employers' Liability Act, 1880, the 43 and 44 Vict., c. 42, was "to extend and regulate the liability of employers to make compensation for personal injuries

suffered by workmen in their service." This Act did not abolish the doctrine of common employment, but it limited its application. Liability was enforced in so far as the accident was caused by negligence, &c., of any person in authority, the employer being held responsible therefor. The sum recoverable as compensation was also limited, but so also was the trial of actions, to a certain extent. The Act never satisfied the workmen because of the power of contracting out of it; and several Bills have been introduced by members of Parliament to amend and extend its operation. This year (session of 1893) the Government brought in a measure, which at this date has passed through a Select Committee, by which the provisions of the Act of 1880 are amended and extended, the existing Act itself being repealed. The chief opposition is against the provision which abolishes the right of contracting out of the Act, as virtually given in the Act of 1880. That Bill is put down as one of the two measures to be dealt with in the Autumn Session.

### 13. THE TRUCK ACTS, PAYMENT OF WAGES, ETC.—1464 TO 1893.

SINGULARLY enough, legislation for the protection of workmen as regards the payment of their wages, dates back more than four and a quarter centuries. The first statute dealing with the matter was 4 Edw. IV., c. 1, by § 2 of which it was enacted that wages were to be paid in money. This was followed by two Acts in the reign of Elizabeth, in 1566 and 1572 respectively, in which payment of wages, and for goods in certain cases, was to be in ready money. There were four Acts in the reign of Anne of a similar character, three in the reign of Geo. I., four in the reign of Geo. II., and two in the reign of Geo. III., prior to the commencement of the present century. These were followed by Acts in 1809, the 49 Geo. III., c. 109; two in 1817, the 57 Geo. III., c. 115, and c. 122; and in 1818 by 58 Geo. III., c. 51. A clause in the Arbitration Act, 1824, the 5 Geo. IV., c. 96, provided that tickets of work were to be delivered in certain cases to ensure proper payment of wages. In 1831 the previous Acts relating to truck and payment of wages were repealed by 1 and 2 Wm. IV., c. 36, and in the same year the 1 and 2 Wm. IV., c. 37, was passed—"An Act to prohibit the Payment, in certain Trades, of Wages in Goods or otherwise than in the current coin of the Realm." This statute is still the principal Act in force.

During the present reign, commencing in 1839, seven other Acts have been passed relating to the payment of wages, stoppages from wages, and similar matters. The principal Act of this series was the 50 and 51 Vict., c. 46, "An Act to amend and extend the Law relating to Truck," passed in 1887. This Act repealed wholly two

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of the older Acts, and certain sections in others. The earlier Acts were restricted to the woollen and other textile industries. The provisions were extended from time to time to numerous other trades, all of which were specifically mentioned in the several statutes. In reality the law was only made general in 1887. Perhaps no series of enactments have had more beneficial results than those Acts denominated the "Truck Acts." Without them the workpeople would have been held in a state of social and industrial bondage.

## 14. TICKETS OF WORK.

APPARENTLY the first legislative attempt to prevent workpeople being defrauded of their rightful earnings by paying less than was legally right was made in 1778-9 by the 19 Geo. III., c. 49. This Act was "to prevent abuses in the payment of wages" in the lace trade. Similar legislation was passed as regards silk weavers. The clause in the Arbitration Act, 1824, the 5 Geo. IV., c. 96, before referred to, provided that tickets of work should be given in certain cases. In 1845 two Acts were passed, 8 and 9 Vict., c. 77, respecting tickets of work to be delivered to workers in the hosiery trade, and by c. 128, in the silk trade. In 1891, by 54 and 55 Vict., c. 75, particulars are to be supplied to workers in the cotton trade in cases where payment is by the piece. All the Acts passed from 1831 to the present time are still in force in the trades specified, the object being to prevent workpeople being defrauded of their proper wages.

## 15. STOPPAGES OF WAGES.

It is an old legal maxim that stoppages are not payments, but this maxim was seldom applied to wages until of late years. The most important Act on this subject is the Hosiery Act, 37 and 38 Vict., c. 48, passed in 1874, which enacts that wages are to be paid net, in the current coin of the realm, without any stoppages whatever, and all contracts to stop wages and for frame rents were declared illegal and void. Deductions for bad work are not illegal, but generally deductions and stoppages are so far regarded as unlawful that the practice is dying out.

## 16. ATTACHMENT OF WAGES.

ATTACHMENT of wages, in Scottish law "Arrestment of Wages," is wholly abolished by the 33 and 34 Vict., c. 30, passed in 1870. This method of seizing or arresting wages was found to be baneful, and consequently the power of so doing is abolished, in so far as any judge of a Court of Record or inferior court is concerned. The Act is a model of brevity.



## 17. PREFERENTIAL PAYMENT OF WAGES.

THE Bankruptcy Act, 1883, 46 and 47 Vict., c. 52, § 40, gives preference, after (a) rates and taxes, (b) to wages or salary of clerk or servant, and (c) wages of any labourer or workman, not exceeding £50, in respect of services rendered within four months of the bankruptcy, whether for time or piecework. This practically covers all wages.

## 18. PAYMENT OF WAGES IN PUBLIC HOUSES.

THE payment of wages in or at public houses is wholly prohibited by 46 and 47 Vict., c. 31, passed in 1883. In so far as miners were concerned, payment in public houses was prohibited by the Mines Regulation Acts, 1872. Much earlier it was rendered illegal as regards coalwhippers and ballast-heavers by 1 and 2 Vict., c. 101, in 1837. They were to be paid on board the vessel, under a penalty of £10. The whole of this series of Acts have operated to the advantage of the workmen, both directly and indirectly. All workmen are now usually paid on the job, without delay.

## 19. HOUSING THE WORKING CLASSES—1851 TO 1893.

UP to the year 1851 no distinctive legislation had been inaugurated to improve the condition of the dwellings of the working classes. An elaborate inquiry into the "Sanitary Condition of the Labouring Population" was instituted in 1841-2, the reports as to which were published in 1842-3. The facts disclosed in those reports were so alarming in their character that some efforts were made to improve the sanitary condition of the urban and rural districts, and of the water supply in the towns more particularly. Lord Shaftesbury and Prince Albert were the pioneers in the series of Acts relating to lodging houses and workmen's dwellings. Singularly enough, in this instance legislation commenced for the benefit of the very poorest.

(a) *Common Lodging Houses, 1851-93*.—In 1851 two Acts were passed, 14 and 15 Vict., c. 28, and 14 and 15 Vict., c. 34, the former for the well-ordering of common lodging houses, providing for inspection, sanitation, &c., and the latter for the establishment of lodging houses for the labouring classes. In the same year further provision was made in the Metropolitan Sewers Act in furtherance of the same object. These lodging houses are now regulated by the County Council, in London; elsewhere by Towns Improvements Acts, in England and Scotland, and in Ireland by the Public Health Acts.

(b) *Artisans and Labourers' Dwellings, 1855-93*.—The 18 and 19 Vict., c. 88, was an Act to facilitate the erection of dwelling houses in Scotland, 1855, and the 18 and 19 Vict., c. 132, was for the

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erection of similar dwellings elsewhere. In 1860, 1864, 1866, and 1867 were provisions passed in Land Acts, and Loans Acts to facilitate the erection of such dwellings. In 1868 the Torrens' Act was passed, 31 and 32 Vict., c. 130, and applied to the whole of the United Kingdom. In the years 1871, 1872, 1874, and 1875 further provision was made in the Local Government Board Act, the Public Health Acts, and the Municipal Corporations Act, and in the latter year (1875) further provision was made as regards Scotland. From 1875 to 1890 fifteen other Acts were passed in which provision was made to extend the facilities for housing the working classes. The law was consolidated in 1890 by the 53 and 54 Vict., c. 70, and further, in 1891, by the Public Health (London) Act. The whole question is now governed by six separate Acts in force.

(c) *Labourers' Cottages, Ireland.*—In addition to the general law relating to the dwellings of the working classes, special provision has been made for labourers' cottages, Ireland, by clauses in the Land Acts, and other Acts, and by eight Acts under the above title, from 1881 to 1893, all of which are in force, or such portions of them as apply to labourers' cottages. The Lands Clauses Acts, portions of the Towns Improvement Clauses Acts, the Railway Clauses Acts, and the Loans Commissioners Acts, also apply to the housing of the working classes. Legislation as regards the dwellings of the working classes is as yet in its infancy, and doubtless greater provision will be made in the near future in this respect.

## 20. CHEAP TRANSIT BY RAIL AND TRAM—1844 TO 1893.

THE necessities of our vast and growing population in large towns required that facilities should be given to the poorer classes to travel cheaply, as well as that better dwellings within the area of such towns should be provided. The first Act to provide such facilities was the 7 and 8 Vict., c. 85, in 1844, which attached certain conditions to the construction of railways authorised by Act of Parliament. Among other things it provided that there should be one cheap train each way per day, the fares not to exceed one penny per mile. The provisions were amended and extended in 1858 by 21 and 22 Vict., c. 75, made perpetual by the 23 and 24 Vict., c. 41, in 1860. In 1868 it was provided that the fares should be posted at all railway stations by 31 and 32 Vict., c. 119; and in 1883, by 46 and 47 Vict., c. 34, passenger duty was abolished as regards the cheap fares, and further provision was made for third-class passengers. In 1889 passengers' tickets were to have the fares printed thereon by 52 and 53 Vict., c. 57. Cheap fares are thus encouraged by Act of Parliament, both by rail and by tram, while the free competition of railways has led to improvements in accommodation, and also cheaper fares with the view of extending and

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developing travelling by the poorer classes generally, and workmen in particular. Further provision in this respect is sure to follow at no distant date.

## 21. BATHS AND WASH-HOUSES—1846 TO 1893.

UNDER the old fiscal legislation soap was taxed, and then the masses were denounced as the great unwashed. Recent legislation removed that blot, and encouraged cleanliness. The first Act to encourage the establishment of public baths and wash-houses was passed in 1846, the 9 and 10 Vict., c. 74. That Act was amended in 1847 by the 10 and 11 Vict., c. 61. and provision was made for bathing facilities in the Towns Improvement Act of that year, 10 and 11 Vict., c. 34, §§ 136 to 142 inclusive. In 1875 further provision was made in the Public Health Act. In 1878 the law relating to baths and wash-houses was amended by the 41 and 42 Vict., c. 14, and it was further amended by the 45 and 46 Vict., c. 30, in 1883. Local authorities were empowered to adopt the Act by a vote of the ratepayers, and in very many cases they have done so; but the adoption of these Acts is not so general as could be desired. Provision is also made for the adoption of the Acts relating to Ireland by legislation commencing with the 9 and 10 Vict., c. 87, in 1846. The two-thirds majority clause has operated against the adoption of the Acts in many places, but there is a growing tendency in the country to give further facilities for bathing, even if no provision is made for wash-houses, the latter not always being equally necessary.

## 22. COMMONS, OPEN SPACES, PUBLIC PARKS, ETC.—1795 TO 1893.

THE necessity for breathing spaces for the people was barely recognised half a century ago. The physiological fact that animal life depends upon vegetable life, and *vice versa*, was scarcely applied to practical life, though, as a scientific fact, it was well known. The gases thrown off by the one are absorbed by the other, each nourishing the other in its turn, and contributing to the healthy atmospheric conditions so essential to animal and plant life.

(a) *Inclosure of Common and Waste Lands*.—The Acts for the inclosure of common lands commenced in the reign of Queen Anne, in whose reign two Acts were passed inclosing 1,439 acres. Up to the year 1797 no fewer than 1,776 Acts were passed, inclosing 3,142,074 acres. In the next three years 180 Acts were passed, inclosing 369,740 acres. Altogether 1,956 Acts, inclosing 3,511,814 acres, were passed up to the end of 1800. The idea then was that it was essential that all such land should be inclosed and cultivated to

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provide food for the people. This policy continued under new conditions and simpler Acts down to 1845, during which 45 years 2,060 Acts were passed, inclosing an additional 2,801,612 acres. In 1845 the General Inclosure Act was passed, 8 and 9 Vict., c. 118. Since that date fourteen other Acts have been passed, inclosing about 750,000 acres. The whole of these Acts are now known by the short title—The Inclosure Acts, 1845 to 1882. All inclosures are now made under provisional orders, and are closely watched.

(b) *Public Play and Recreation Grounds, 1847 to 1893.*—Power was first given to municipal corporations and other local bodies to acquire land for public recreation grounds, in 1847, by the Towns Improvement Act, 10 and 11 Vict., c. 34. The powers thus conferred have been extended by various Acts from 1852 to the present time. Facilities are also given by various Acts for the conveyance of open spaces for public purposes, by gift or bequest, by private individuals.

(c) *The Open Spaces Acts, 1877 to 1890.*—The Acts of 1877 and 1881, the 40 and 41 Vict., c. 35, and 44 and 45 Vict., c. 34, were Metropolitan Acts. Those passed in 1887 and 1890, the 50 and 51 Vict., c. 32, and 53 and 54 Vict., c. 15, respectively, are general Acts, all affording greater facilities for securing open spaces for the benefit of the people.

(d) *The Metropolitan Commons Acts, 1866 to 1878.*—These Acts were passed to prevent the further inclosure of commons in or near the Metropolis. Under these Acts several important and extensive areas have been secured.

(e) *Public Parks.*—Special Acts have been passed from time to time for the purpose of securing public parks, and powers have been granted to local authorities under local and private Acts for all those purposes. The growing tendency is to secure the best available sites in the Metropolis, and to provide in most of our large towns some parks, pleasure grounds, gardens, &c., for healthful resort and recreation in all parts of the kingdom.

## 23. WEIGHTS AND MEASURES ACTS—1357 TO 1893.

It is rather curious to note the long period over which legislation has extended for the establishment in this country of an uniform and true standard of weights and measures. The Statute of Westminster, 31 Edw. III., c. 2, statute II., enacted that a standard of balances and weights shall be sent to every county. During nearly 440 years numerous Acts were passed to ensure a true standard down to 1794–5, when the 35 Geo. III., c. 102, was passed “for the more effectual prevention of the use of defective weights and of false and unequal balances.” From that date to 1878 some thirty or more Acts, or

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provisions in other Acts, were passed, the object of which was to establish uniformity in weights and measures, and to prevent the use of false weights and measures. In 1878 the 41 and 42 Vict., c. 49, was passed, "An Act to Consolidate the Law relating to Weights and Measures." That Act was amended by the 52 and 53 Vict., c. 21, in 1889, and again by the 55 and 56 Vict., c. 18, in 1892. The provisions in those Acts in force relating to weights and measures are fairly good and complete; whatever defects exist relate to their administration and enforcement. Full weight and full measure belong of right to every person in their dealings and purchases, and perhaps the co-operative store has done nearly as much as the law, of late, to ensure even-handed justice in these respects. Those cheated the most and worst were the very poor, but even these have now their remedy.

#### 24. ADULTERATION OF FOOD, DRINKS, DRUGS, SEEDS, ETC.— 1267 TO 1893.

ADULTERATION of food was prohibited by the statutes made at Kenilworth, 51 Henry III., st. i., in 1267. Various other enactments were passed, the chief being in 1581 and 1604. Other statutes were passed relating to adulteration, but the extent to which it was still carried on in the year 1822 is seen in Mr. Accum's book, "Death in the Pot." The adulteration of bread and flour was further dealt with in 1836 by 6 and 7 Wm. IV., c. 37, and again in 1851. In 1855 Dr. Hassall dealt with the subject in his book, "Food and its Adulterations." In 1860 parochial chemical analysts were appointed under the 23 and 24 Vict., c. 84. In 1869 the adulteration of seeds was prohibited; amended in 1878. In 1872 the Adulteration of Food and Drugs Act was passed, and also clauses relating to liquors in the Licensing Act of that year. The Select Committee of the House of Commons, in 1874, said that the people were cheated rather than poisoned; and in 1875 the "Sale of Food and Drugs Act" was passed, 38 and 39 Vict., c. 63. This was amended by the 42 and 43 Vict., c. 30, in 1879. Here again the co-operative store has exercised an important influence, and conferred a public benefit. The quality of the food, drink, drugs, &c., that we consume is as important as the quantity sold; both should be up to the true standard as by law established. To cheat the people by false weight or measure, or by adulteration, is cruel in the extreme, and deserves severe punishment.

#### 25. THE LAW OF DISTRAINT—1267 TO 1893.

THE provisions of the Law of Distraint now actually in force date back to the Statutes of Marlborough, in 1267, the 52 Henry III.,

cc. 1, 2, 4, and 15. Then follows the 3 Edw. I., c. 16, in 1275; the Statute of Westminster, in 1285, the 13 Edw. I., c. 37, and several others down to the 32 Henry VIII., c. 37, in the year 1540. The object of these statutes was to prevent wrongful distrains, and to punish unlawful distresses for rent, dues, and debts. The 2 Wm. and Mary, c. 5, in 1689, gave further protection, but at the same time awarded damages in case the goods were rescued. The first real protection was afforded in 1737 by 11 Geo. II., c. 19, §§ 8 and 9, extended by 56 Geo. III., c. 50, § 6, in 1816, as regards growing crops and cattle, in the case of rent. As regards the poor the first Act to give relief was the Lodgers' Goods Protection Act, 1871, the 34 and 35 Vict., c. 79. In 1888 wearing apparel and tools, up to the value of £5, were exempt from distraint by the 56 and 57 Vict., c. 21, and in the next year (1889) wages were made to rank next to rates, as a first charge on the goods distrained of bankrupt or company, in certain cases, by the 52 and 53 Vict., c. 60, § 4. The cruelties of the Law of Distraint are now, to a large extent, things of the past. But until recently the homes of the poor could be stripped of everything—tools, wearing apparel, the bed and bedding, all could be taken, except the clothes being worn at the time of the distraint. Cruel injustice may still be inflicted by the way in which the laws are administered, or mal-administered, but the general tendency of legislation in this respect is now in favour of poverty—of the debtor, not of the creditor.

## 26. MARRIED WOMEN'S PROTECTION AND PROPERTY ACTS— 1833 to 1893.

UP to the beginning of this century the position of a married woman was little better than that of a chattel of her husband, with no recognised individual rights. A man could not legally sell his wife, but it was done, in some cases openly, in others covertly, the wife thus sold having but little legal remedy. Some men thought that they had as much right to beat a wife as to chastise his child, and even now the courts generally treat very leniently the wife-beater. In cases of ill-usage the law does, however, step in, and cruelty is now regarded as an offence for which there is a legal remedy, either in the police courts or in the divorce courts. The law as to the disposition of property dates back to 1833, the 3 and 4 Wm. IV., c. 74. Protection orders are granted under the 21 and 22 Vict., c. 108, in 1857-8; and again by the 27 and 28 Vict., c. 44, in 1864. Married women's property and savings are protected by the Married Women's Property Acts, 1870 to 1884, the principal now in force being the 45 and 46 Vict., c. 75, and 47 and 48 Vict., c. 14, in 1882 and 1884 respectively; and in Scotland by the Acts of 1877

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and 1881. No right-minded man will complain of such protection as these Acts afford to a married woman; on the contrary it is a protection to him, his home, and their children, and operates beneficially to the community.

## 27. NATIONAL EDUCATION: AGENCIES AND INSTITUTIONS.

It is questionable whether the progress and welfare of the masses of the people depend upon any series of legislative or administrative Acts more than upon those encouraging the education of the people. Legislative aid for England only dates back to 1833; in Ireland, however, grants in aid were made centuries before, but chiefly for the purposes of proselytism. In Scotland systematic encouragement was given in the early days of the Reformation. The co-operators of the United Kingdom deserve honourable mention for the encouragement of education among the working people of both sexes, and all ages. A mere index of the Acts and agencies now in operation for the spread of education would occupy more space than is at command in this year's "Annual," and therefore only the more important groups of legislative measures can be indicated at present.

(a) *Parliamentary Grants*.—The first yearly grant was made in 1833, in the first year of the Reformed Parliament, of £20,000 towards providing school accommodation. In 1839 the Committee of Council on Education was established, and the annual grant was raised to £30,000, which amount was annually voted up to 1842. In that year it was increased to £40,000. By the year 1851 it had reached £150,000; in 1861 to £803,794; and in 1870 to £914,721. In that year the Elementary Education Act was passed, under which the annual grants have risen year by year until it has now reached £6,200,000. School fees were abolished in 1891. Board schools are supported out of the rates, in addition to the Government grants. And this year the Evening Continuation School Code has been issued, the effect of which will be to advance education enormously among the working classes.

(b) *The School Sites Acts, 1836 to 1852*.—This series of Acts afforded facilities for the conveyance of school sites, and for the endowment thereof. These Acts, from the repealing Act of 1841, are still in force as the "School Sites Acts, 1841 to 1852."

(c) *The Public Schools Acts, 1866 to 1873*.—This series of Acts apply to higher schools, and provide for the government and property of public schools.

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(d) *The Endowed Schools Acts, 1869 to 1889.*—These Acts relate to secondary education, and provide for the better administration of endowments for educational purposes, schemes for the management of which are being made year by year.

(e) *The Universities and College Estates Acts, 1858 to 1880.*—These Acts provide for the better administration of university and college property. Under various Acts scholarships are provided for the poorer classes, the universities being open to clever children, even from the board schools. Religious tests are also abolished.

(f) *Free Libraries, Museums, and Art Galleries.*—In the year 1845 an Act was passed for encouraging the establishment of museums in large towns; in 1850 an Act was passed to enable town councils to establish public libraries and museums; and in 1855 the Public Libraries Act was passed. In 1892 the Acts relating to England were consolidated by the 55 and 56 Vict., c. 53. The provisions of these Acts apply to the United Kingdom, but those for Scotland and Ireland are in separate Acts. Those relating to Scotland were consolidated in 1887 by the 50 and 51 Vict., c. 42. The attempt to consolidate those for Ireland, in 1893, failed. Schools and institutions for the promotion of education and culture are advancing with rapid strides, to some of which even the poorest have access. May they take full advantage of all their opportunities.

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SUMMARY AND CONCLUSION.

IN the preceding brief outline of social and industrial legislation, during the last one hundred years, the exigences of space have compelled the omission of references, except incidentally, to several very important groups of Acts bearing upon and relating to the interests and the welfare of the working classes. Those specifically dealt with are more or less direct and special in their character and application, while those now to be mentioned are more general, but some of these might also come within the same category, only that their inclusion would greatly extend the limits accorded to this paper.



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Among those omitted for want of space are: (1) The Poor Laws, the foundations of which were laid in the Act of the reign of Queen Elizabeth, remodelled to a large extent in the year 1834 by the 4 and 5 Wm. IV., c. 76. (2) The Public Health and Sanitary Acts mainly passed during the present reign, attention to which was directed by the outbreaks of cholera and other epidemics. (3) Municipal Reform, in 1835, by the 5 and 6 Wm. IV., c. 76, and subsequent extension of Local Government in Urban and Rural Districts, and latterly by County Councils in 1888. (4) Fiscal Legislation, the removal of burdens upon trade, of taxes on food, and on all other necessities of life, with some few exceptions now imposed at very reduced rates. (5) Law Reform, by the repeal of bad old laws, by the consolidation and simplification of existing laws, and by the enactment of such laws as those previously mentioned. (6) By the repeal of the old laws relating to "Master and Servant," and by the enactment of more just laws relating to apprentices, domestic and farm servants, as to the contracts of hiring and of service, and similar agreements. (7) Acts for the Protection of Women and Children. (8) Nor should we omit the Acts relating to "sports" and cruelty to animals, all of which show a more humane spirit. (9) And, lastly, the several Reform Acts which have given to the working classes the rights of citizenship, and a voice in the creation of the laws by which they are governed, the passing of which have inspired the better laws mentioned.

In conclusion, I venture to say that the body of laws to which attention is called in this article is not only unsurpassed, but is unequalled in the legislation of the world. In many respects they are still imperfect; in some respects the administration is scarcely up to the level of the intention of the Acts; but the path is more easy for the future. One very important feature ought not to be omitted, namely, the urgent need of consolidation in all cases where it has not yet been effected, so that the law shall be simple, concise, and readily available, in a compact and cheap form, for the use of all classes of the people. The great necessity for consolidation can be

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proved by three examples: The Poor Laws consist of nearly 140 enactments, besides a huge volume of Provisional or Statutory Orders of about 1,000 pages. The Acts relating to charities and charitable uses extend to about 50 enactments, besides a huge mass of "Schemes." The Merchant Shipping Acts consist of 43 enactments; the provisions of the Consolidation Bill cover 358 pages, and consist of 774 clauses. In chaos there is confusion. The very term Law implies order and exactitude.

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## ADDENDA.

(1) Employers' Liability, page 218. The chief opposition to this Bill was to clause 2, the provision against contracting out of the Act. On the report stage in the House of Commons, on November 10th, 1893, the amendment to that clause, to grant exemption in certain cases, was defeated by 236 to 217—majority for the Bill, 19.

(2) Adulteration, page 225. In reference to Adulteration, it should be stated that an Act was passed last session, the 56 and 57 Vict., c. 56, to prevent the adulteration of fertilisers, and of feeding stuffs for cattle, &c.

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## THE HISTORY AND EFFECTS OF THE PRIVILEGED CLASSES IN CIVILISED COMMUNITIES.

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BY HENRY DUNCKLEY, M.A., LL.D.

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THE title prefixed to this paper describes in general terms the subject to be dealt with. "Privileged classes" are mentioned, but the scope of the phrase is undefined, and they are to be considered in relation to civilised society as it may exist in this or any other country. We are asked to give the history of these privileged classes, and to speak of the effects they produce upon the society in which they are found. It is evident that, as a first step, we must reduce the abstract to the concrete. We must single out and identify the classes in question before we can say anything about their history, or attempt to trace the effects which may be ascribed to them. Abstract discussions have their proper place, but in dealing with practical questions it is best to start with facts and to keep them always in view. The world is full of civilised communities. There are not many that are altogether uncivilised. We think unfavourably of the Turk, but he is not a barbarian. India, China, and Japan are the seats of ancient civilisations, differing, indeed, from the civilisations of the West, but of a relatively high level. For the sake of precision and definiteness it is desirable to pick out one civilised society from among the rest, and perhaps we cannot do better than choose our own. It is the one with which we are best acquainted, and any conclusions to which we may be led in the survey of classes at home will, with due discrimination, be applicable elsewhere.

We must further add that in describing certain classes as "privileged" the word is to be understood in a popular rather than in any strictly legal sense. There are some privileges which are conferred by laws now in force; there are some which had their origin in laws that are now obsolete; there are others which have no higher sanction than social tradition and usage. Society is itself a legislator. It steps in where the law of the land ceases, issues its own decrees, and assigns penalties for their non-observance. In this way it keeps alive distinctions which would else have died out, and establishes fresh ones from time to time in defence of arrangements which it is anxious to preserve. Society is eminently conservative whatever may be the political opinions of its members.

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It attaches itself to the past; it draws its inspirations from the past; its ideals and its ambitions are essentially those of the past. No doubt it moves on but it moves slowly, keeping leagues in the rear of legislation. Recent constitutional changes have made England a democracy, and the balance of opinion as declared at the poll-booth is in favour of diffusing the democratic spirit through all our institutions. The essence of democracy lies in the equality of citizenship. Politically and civilly one man is as good as another, each having the same share in the government of the State. From this fact, and from the doctrine on which it rests, it would seem to follow that a feeling of equality should penetrate all the relations of life. Against such a transformation society resolutely sets its face. Parliament may do what it likes, but there is a force outside Parliament which traverses its enactments and will not permit them to meddle in any way with established ideas. This social conservatism no doubt finds its most congenial soil in political conservatism. There everything is in harmony, and kindred sentiments grow well together. But politics have very little to do with the question, and it will be often found that social exclusiveness, which is nothing else than the setting up of class distinctions, in other words, of class privileges, is practically compatible with the strongest professions of Radicalism. To such an extent as this does society push its reactionary tendencies and set up the class idea in opposition to the sentiments of democracy.

The popular mind is not very apt at analytical observation. It does not trouble itself with nice distinctions. Perhaps this is to be regretted, but its faculties will ripen as education advances. At present one who is merely a citizen working for his bread sees above him, rising as it were tier above tier, the various classes and orders of people who constitute the upper sections of English society. They seem to live in a region which he can never hope to enter. Perhaps if he knew them better he would see less to envy, but looking at them from the outside they appear to him to be a privileged portion of mankind. As a matter of fact he owes much to them. But for the part which some of them have taken in the political conflicts of the last sixty years he would not have risen to the position he now occupies. These upper classes have furnished the working classes with some of their most eloquent advocates and most influential leaders. It was Earl Grey, Lord Althorpe, and Lord John Russell who carried the first Reform Bill, which had in it the seeds of all subsequent reforms. But the rapid succession of political changes at a more recent period and down to the present time has probably helped to chill the spirit of Liberalism in these higher regions, and arrayed "the classes" in opposition to further progress. Hence the feeling of antagonism which has lately been

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developed between "the classes" and "the masses." The two words have even been turned into a political war cry. The circumstance is to be regretted, but at any rate it furnishes us with an occasion for taking a critical survey of "the classes" and considering how far they may be regarded as incongruous elements in a civilised society.

## I.

THE first fact to be taken into account is that we are living under a monarchy. With monarchy as a purely political institution we need not concern ourselves. We have to consider it solely on its social side. It is a necessary result of monarchical institutions that one family is raised to a position of solitary pre-eminence above all other families in the realm. Were it not for two marriages which the Queen has been pleased to permit, one would say that the height of dignity which this family occupies is absolutely unapproachable. As it is the line of demarcation is well maintained. Between members of the royal family and members of the most aristocratical families in the land no comparison can be instituted as regards rank. They are incommensurable quantities. Between the blood royal and the bluest blood in the veins of the nobility there is a difference which may yield indeed to the researches of the ordinary physiologist but is socially absolute. We have here the archytype and model of all other class distinctions. Here is an example held up to the whole community which they naturally aspire to copy and imitate in various ways. Their efforts may be poor as compared with the end to be achieved, but they are always sincere and in a measure they are generally successful. The sovereign is the fountain of honour. Hence the desire so widely felt to stand as near that fountain as possible in the hope of catching some of its sprays. To have access to the Queen is deemed one of the highest distinctions. As a rule this can only be enjoyed by those members of the Privy Council who are entrusted with the government and by the small number of persons who form the permanent court, but the social functions of the sovereign allow of an extension of the privilege to a much wider circle. Levees and Drawing Rooms are held several times in the course of the year at which hundreds of presentations take place. It is not everyone who can find admission. The list of applicants is submitted to the Queen, who through the Lord Chamberlain erases names that for any reason are deemed unfit. It is understood that considerations of character enter largely into this small exercise of the Queen's prerogative. Subject to scruples of this kind the doors of St. James's are always open to members of the aristocracy, to people of rank or wealth, and to persons occupying distinguished official positions. The honour seems to be highly

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prized. It is regarded as a patent of social precedence and as a passport into the most select society, for who, it is suggested, can hesitate to receive those who have been "received at court"? The validity of the patent, however, is by no means universally acknowledged. There are numbers of people who in such matters are more fastidious than the Queen. When the dignity of one class has to be maintained against the ambitious pretensions of another, self-appreciation becomes almost a duty.

Streamlets from the fountain of honour trickle all over the land. Some are made peers, others baronets or knights. Such honours are often worthily bestowed. A man founds perhaps an hospital or a picture gallery; this shows that he is wealthy and public spirited. He can "support a baronetcy"—why should he not have one? The position he has acquired has given him influential friends, and a suggestion made on his behalf in the right quarter generally meets with a favourable response. The bestowment of honours has become, perhaps has always been, an important instrument in the art of government. In former times kings conferred them on their personal favourites. The sovereign now has not much choice in the matter. Like other prerogatives of the Crown, the honour-conferring prerogative is put in commission and is exercised by the Queen's ministers. Every government in succession looks after its own friends. A wealthy man who has served his party faithfully for many years can have almost any titular distinction he chooses to ask for. Sometimes the fact that he has not served his party too faithfully will do almost as well, since it is possible that proper attention will secure a more steadfast support in the future. It may be said that all this seems to savour of corruption. However that may be it does not concern our present purpose, but we must not be too severe with human motives. They are generally of a mixed description, and to insist upon entire indifference to what makes for personal advancement would be to put a stop to half the machinery of human life. From whatever motive such honours are given or accepted they have important social consequences. They help to strengthen the conservative forces of society. They are additional supports to the existing fabric of government. When a good citizen, the elect of his fellow citizens, finds himself all at once a Lord Mayor he is naturally disposed to think more favourably of the aristocratical elements in the Constitution than he did the day before his elevation. In the same way he who accepts a title from the Crown is likely to be led to the opinion that, whatever Radicals and levellers may say, social distinctions are good and useful things. He can hardly fail to harbour sentiments appropriate to the honour he has received, and however generous their character may be they are not likely to harmonise with the equality of citizenship. The very principle of

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all such honours is that it is well to raise men above the common level and to arrange society into classes which shall derive their chief value from the comparatively small number they contain and the enormous number who are excluded. This indeed is the essence of privilege. Its worth lies in its exclusiveness. It is valuable chiefly because it is not possessed by other people.

## II.

WE have not only a monarchy; we have also an aristocracy, and this is the second fact to be taken into account. Of the Parliament of Great Britain consisting of Queen, Lords, and Commons, two of the branches are hereditary—the Sovereign and the House of Lords. From anything that may seem invidious in this distribution of power the Crown must be held excluded and exempt. The Crown in its legislative as well as in its executive capacity is represented by its ministers for the time being, and never fails to give its sanction to any measure which has passed the two Houses. As a result of recent political changes the legislative powers of the House of Lords have been very much abridged, though remaining the same in theory. All they can do with regard to any measure is to interpose a certain period of delay before it becomes law. Nevertheless the share of power they still possess is great and striking, and it is undiluted privilege. The peers are a permanent body in the State, independent alike of the sovereign and the people. Except in the case of new creations they owe their place in Parliament to their birth. When a peer dies his son or other nearest male heir succeeds to his position and begins his duties as a legislator; there are no guarantees for his ability, his wisdom, his knowledge of affairs, or his moral worth. It is by no means certain that he will not turn out a fool, and there are some members of their Lordships' House who have been accustomed to shine in that capacity. When once a man has been made a peer the right to a seat in the Legislature is secured to his descendants as long as the race shall last.

The privileged position which the peers enjoy in the sphere of legislation has been turned to their advantage in many ways. It has enabled them to maintain or to acquire other privileges. Aided by their allies in the other House, where till far within the present century landed influence was supreme, they succeeded in keeping in their own hands the greater part of the land and in establishing a virtual monopoly which included almost all the rest. The peerage had to be maintained—this was the first canon to be observed. It could only be done by keeping the family estates together and handing them down in undiminished bulk from one generation to another. The older law of entail, which established the succession

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to landed property in the line of eldest sons, was broken in upon by the fictions of the law courts, and the practice is now strictly limited, but means of evasion have been discovered. Land can only be settled legally for a life or lives in existence and twenty-one years beyond. This allows time for the next heir to come of age, and by an agreement between him and the tenant for life the land is resettled in the same way for another period. It is clear that this practice, which is all but universal, is pretty much the same in effect as a perpetual entail. The greater part, one might almost say the whole, of the land is under strict settlement. It is thus kept out of the market, and as it is heavily burdened with provisions for dowagers, sisters, and younger sons, no surplus is left for the improvement of the estate. For the same reason rents have to be kept up at the highest competitive level, and the farmer till lately ran the risk of having to pay rent on his own improvements.

Manorial rights, as they exist over a large part of the country, are remnants of privileges which the peers of England acquired at an early period. The manor is an institution which dates from Saxon times. It was adopted and extended by the great barons among whom the land was distributed after the Conquest. None have been created since 1290, when the statute *Quia Emptores* put a stop to sub-infeudation. As an institution the manor no longer survives except as an historical curiosity, though there are still places where the manorial courts, the Court Baron and the Court Leet, are kept up as a matter of form. But there are some rights which the lord of the manor still asserts. The statute of Merton, passed in 1236, gave to the lord of the manor the right of enclosing all common land that was not absolutely required by the freeholders. As a proof of the vitality which this old statute is held to possess after the lapse of almost seven centuries, it may be mentioned that Lord Salisbury appealed to it the other day in opposition to a measure proposed by the Government in the interest of the rural districts. Every bit of the waste land of the manor belongs to the lord, and what constitutes waste is likely to receive at his hands a rather liberal interpretation. An outlying common; the grassy stretches that lie along either side of many a country road, and in some cases extensive open spaces which from their being near to some large town have become valuable for building purposes, are liable to be impounded by the lord of the manor. His rights are, perhaps, all the more vexatious because they are not rigidly defined. No one can tell exactly where or how he may interfere, and in country districts, where it is dangerous to dispute his authority, he has hitherto been able to have pretty much his own way. The Game Laws may be cited as another instance of the privileges which have been acquired by the lords of the soil. They have their origin in the



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Forest Laws, which were framed by our early kings for the protection of large tracts of country where game was preserved for the diversion of themselves and their courtiers. In course of time, as population increased, it was deemed necessary to extend these laws to all land where game was found, in order, as was alleged, to prevent its extirpation, but in reality to deprive the common people of their right to capture things that were wild by nature and no man's property. The Game Laws have been carried out in a spirit of tyranny, and have been a fruitful source of demoralisation. They have helped to terrorise the rural districts. The village labourer hardly dares to look over a hedge for fear of catching the gamekeeper's eye and exciting his suspicions. The gamekeeper is the despot of the woods and the country side, a foe to be held in awe and placated by all manner of submissiveness.

We have spoken of some privileges which are conferred by social usage, and the landed aristocracy have always had the largest share of them. The peers throughout the country stand first in social position. They are at the top of the ladder which many are ambitious to ascend. They are the Lord Lieutenants of counties. Every bench of magistrates is filled with their nominees. Their social influence is supreme. A peer is accepted as the most distinguished personage in the district where he resides. He may be only the first of his line, and his immediate ancestors may have risen from the industrial ranks, but imagination invests him with the immemorial splendour of the class to which he now belongs. He lives on terms of easy condescension with the more important gentry of the neighbourhood, and his patronage and countenance are sought by all who have any special interests to serve or any ambitious wish to gratify. It is a common saying that the English people dearly love a lord, and there is a good deal of truth in it. The lord has his relations. While they share his honours they also help to extend his influence and to diffuse the incommunicable aroma of noble birth through large portions of society. The dignity of the peerage is restricted to the peers themselves. Their brothers and sons are commoners, from a legal point of view on a level with the rest of the community. But the sons have courtesy titles. The eldest son of a duke is styled a marquis, and so on through the descending steps of the peerage. In "Burke's Peerage" there is published a table of precedence which determines the relative position held by the various members of the aristocratic hierarchy, so that all shall know their places, and not ignorantly or presumptuously usurp the privileges of the class above them. This serves as an object lesson to the rest of the community who are taught to emulate in their several degrees the example of their betters.

## III.

WE have now to descend a step or two to consider other dignities of less renown. The lowest degree in the peerage is that of baron. It therefore seems appropriate that the highest dignity below the peerage should be that of baronet, or little baron. It was instituted by James I., in 1611, for reasons savouring more of business than of chivalry. He had recently "planted" the North of Ireland with Protestant farmers from Scotland. The Ulster Plantation, as it was called, having a hostile population on its borders had to be furnished with means of defence, and as the king had no money to spare, while honours could be created at no cost, he instituted the dignity of baronet in order, as the saying is, to raise the wind. The terms were that the new baronet should support thirty soldiers to serve in Ireland for three years, paying them at the rate of eightpence a day, and a year's wage had to be paid into the exchequer at once. The total cost to the baronet was about £1,000, and there was no guarantee that the money would be applied to the purpose for which it was raised. The number of baronets was fixed at two hundred, and the king did not go beyond that limit, but it was afterwards exceeded, and no limitation is recognised now. Some regard was had to the birth and means of those upon whom the honour was bestowed. They were to be gentlemen of coat armour of at least three descents, that is at a remove of three generations from the common people. The dignity carries with it nothing beyond a titular distinction, denoted by the prefix "Sir," but it is hereditary, and that is of some consequence, occasionally, perhaps, an inconvenient one, since it involves the endowing of a family with permanent means of maintaining its rank. Care has been taken to keep the baronets in their proper place. In order of precedence they rank after the younger sons of viscounts and barons.

Next to the baronets come the various orders of knighthood, which have at any rate the prestige of greater antiquity. We are familiar with the designation from the earliest times. Originally the knights were the immediate attendants upon the king and the great nobles. Under the feudal system they were bound to service in war, and the military obligations of the tenants of the Crown were reckoned at so many knights' fees. Then came the days of chivalry when knights sallied forth to challenge all and sundry in maintaining the superior perfections of the ladies to whom they had pledged devotion. The Church interested itself in the creation of knights, and had various orders of its own, the Knights Templars, for example, whose chief business was the rescue of the Holy Land from the hands of the infidel. At one time the investiture with the honour of knighthood was accompanied by a religious service. The candidate

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had to bathe himself, attend the confessional, spend a night in lonely vigil before the altar, and receive the sacrament. He laid his sword upon the altar as a sign of his resolution to defend the cause of the Church and lead a holy life. The title was conferred by binding upon him the sword and spurs, after which the person conferring the order struck him gently on the cheek or shoulder, adjuring him to be a good and faithful knight. He then took an oath "to protect the distressed, to maintain right against might, and never by word or deed to stain his character as a knight and a Christian." One may admit the poetry of such a ceremonial. The knight became a sort of idealised personage. The romancers of the period introduced him into fables. To them we owe the fictions of the Paladins of Charlemagne and King Arthur's Knights of the Round Table. The chivalry in which the knight was the most prominent figure lasted longest in Spain, where in the last days of its decline it was finally laughed out of existence by Cervantes in his "*Don Quixote*." In England the military knight perished more prosaically. Having been originally bound to military service he was held liable either to serve or pay an equivalent. His service was not wanted. The king wanted money. Hence knighthood was forced upon people who were supposed to be able to pay, and they often agreed to pay the money on condition of being allowed to decline the honour. It thus became a mere instrument of extortion, and was finally got rid of in the reign of Charles II. by the abolition of knights' service on which the demand was founded.

The mystical and legendary associations connected with the knighthood of the Middle Ages confer some lustre upon the various orders of knighthood which have been created in modern times. The oldest of British orders, the Order of the Garter, goes back to the days of Edward III., a monarch whose head was rather full of nonsensical ideas derived from the practices of chivalry. It is restricted to the Sovereign, the Prince of Wales, and twenty-five companions who are elected from among sovereign princes and other members of ruling houses, and the most distinguished members of the British aristocracy. The figure of St. George on horseback encountering the dragon, which is one of its principal decorations, gives it a specially English character, St. George being regarded as the patron saint of England. As counterbalancing distinctions of a national character we have the "most noble and most ancient Order of the Thistle," which was revived by James II. in 1687, and the "most illustrious Order of St. Patrick," which was instituted by George III. in 1783. Both these orders are restricted, the former to sixteen, the latter to twenty-two knights, in addition to the Sovereign or, in Ireland, the Lord Lieutenant, as Grand Master, and they are elected from among the chief nobility of the respective

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nationalities. From a social point of view the most important of the regular orders is that of the Bath, owing to the various grades comprised within it and the very large number of persons upon whom it is conferred. Its origin is in some doubt, but it is believed to have been founded in the reign of Henry IV., in the year 1399, and to derive its name from the ablution which the knight of old time had to undergo previous to his investiture. Whenever it may have been instituted it was revived in 1725, and enlarged in 1815 and 1847. It is both a military and a civil order. The first division consists of the Knights Grand Cross (G.C.B.), the second of Knights Commanders (K.C.B.), the third of Companions (C.B.). The first and second give the title of knighthood, the third only the right of adding two honorary letters to the name. Once on the roll of the order there is a prospect of some advance, and the companion may hope some day to be made a knight commander. Other orders which have been founded or, in one case, extended during the present reign are "the most exalted Order of the Star of India," "the most distinguished Order of St. Michael and St. George" (founded in 1818 but enlarged and extended in 1868 and 1877), "the most eminent Order of the Indian Empire," "the Royal Order of Victoria and Albert," and "the Imperial Order of the Crown of India." The two latter are exclusively for ladies. The Order of St. Michael and St. George is intended chiefly for persons connected with the colonies, as the Indian orders are intended for Indian notabilities, native as well as European, and persons connected, directly or indirectly, with the administration of Indian affairs.

So much for the orders of knighthood; but there are a multitude of knights who belong to no order, and it is with these that we are chiefly brought into contact in social life. They are described as Knights Bachelors, but why they are called bachelors is not immediately obvious. The reason seems to be that as they stand upon the lowest level of knighthood they may be held to have taken their first and initiatory degree. In civil life the bachelor is often, but not always, young, and in the university the status of a bachelor in any of the faculties is that which is first reached. The distinction is conferred upon persons who have acquired eminence in any line of achievement, whether in science, art, or letters, or in connection with the administration of public affairs or by services rendered to the community. It is a sign of social desert, of public merit, and is supposed to carry with it the approbation of the sovereign, by whom it is usually conferred in private audience. The candidate drops upon one knee, the Queen deftly strikes him with the sword on one or both shoulders and bids him rise under his new title. It is not to be supposed, however, that the sovereign as a rule exercises any

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power of selection in bestowing the honour. The royal observation is not sufficiently extensive or minute to be able to single out all whose merits entitle them to the favour of the Crown. That critical service is performed by the Prime Minister, who is himself aided by those in whom he can place confidence. In this way the more meritorious members of the community are discovered, and the sovereign seldom, we must suppose never, fails to accept the list submitted with such credentials.

## IV.

WE must now descend a little lower than the distinguished personages with whom we have so far been concerned. In so doing we pass into circles which have a far wider sweep and comprise large portions of the community. We are familiar with the title "esquire." Perhaps most of us have had the honour to be described by it, at any rate in the address on a letter. It is also well known that there is a finely discriminating force in the epithet "gentleman," while the word is occasionally used to designate the status of individuals whose social position it would otherwise be difficult to define. The distinctions indicated by these names are perhaps of more importance to us than the grand titles which are borne by people of high rank. They are the low-clipped hedges or skeleton railings which shut off all who pretend to "quality" or "condition" from the broad unenclosed common lands on which the great mass of the people dwell. Anciently an esquire was one of the attendants upon a knight. He carried the knight's shield, assisted him when he put on his armour or when he took it off, added to his state at tournaments, and was ready with his services on the field of battle. The esquire necessarily lost his occupation when military knight-hood fell into disuse, but the name survived, probably in the families of those who had once worn it and was gradually extended to others who could allege no such reason. The time came when it was hard to say who had or who had not a right to the designation. Blackstone says, in one of his chapters on "The Rights of Persons": "It is, indeed, a matter somewhat unsettled what constitutes this distinction, or who is a real esquire, for it is not an estate, however large, that confers this rank upon its owner. Camden, who was himself a herald, distinguishes them the most accurately, and he reckons up four sorts of them: 1. The eldest sons of knights and their eldest sons in perpetual succession. 2. The younger sons of peers and their eldest sons in like perpetual succession. 3. Esquires created by the king's letters patent or other investiture and their eldest sons. 4. Esquires by virtue of their offices, as Justices of the Peace and others who hold any office of trust under the Crown." Formerly a

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Knight of the Bath used to constitute three esquires at his installation, but this privilege has been abolished. It was perhaps time to do so since the title could be so easily assumed or conferred. At present it is given to everybody who is somebody, from which it seems logical to infer that he to whom it is not given is a nobody, and this perhaps is the chief objection to its use. As a rule it may be said to be given to all who do not earn their living by retail trade or by manual labour, and it thus forms one of the most extensive boundary lines between the "classes" and the "masses."

The same indistinctness attaches to the word "gentleman," when used as the designation of a class, and not as merely descriptive of personal manners, though there can be no doubt that it has a more distinguished ancestry than "esquire." We are told by those who may be considered authorities in this branch of antiquarian research that the word is properly descriptive of those who are held to be the untitled nobility of England, that is to persons "of family," who can trace out a lineage in what is known as "gentle blood." The ancient definition of a gentleman was one who had a right to coat armour, or, as we now call it, a coat of arms. We are told that a "gentleman" and a "nobleman" were once identical in meaning, and that the English "gentry" are properly on a level with those who on the continent are entitled to prefix to their names the ennobling particles *von* and *de*. In Germany these matters are carefully looked after, and no one can assume the prefix *von* who is not entitled to use it. The equivalent *de* in France has been more unfortunate and means little more than our esquire. The right to a coat of arms was once carefully restricted in England. The various colleges of heralds kept a jealous watch over the counties, and any one assuming arms to which he was not entitled was called to account. In our days the college of heralds is more obliging, and is willing to furnish a coat of arms to anybody of any social pretensions who can make out a colourable lineage and is willing to pay the fees. In practice a person may assume what arms he pleases, only the Government taxes him for the luxury. We are told that "the gentry of England formerly had many privileges recognised by law. If a churl or peasant defamed the honour of a gentleman the latter had his remedy in law, but if one gentleman defamed another the combat was allowed. In equal crimes a gentleman was punished with less severity than a churl, unless the crime were heresy, treason, or excessive contumacy. A gentleman condemned to death was beheaded, not hanged, and his examination was taken without torture. In giving evidence the testimony of a gentleman outweighed that of a churl. A churl could not challenge a gentleman to combat, because their conditions were unequal." In this description we are reminded of some vestiges that still linger in English society. In

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course of time the "gentleman" went the same way as the old knights and esquires. Sir Thomas Smith was a statesman and diplomatist of the sixteenth century and wrote a book on the Commonwealth of England from which Blackstone quotes the following passage:—

As for gentlemen they be made good cheap in this kingdom, for whosoever studieth the laws of the realm, who studieth in the universities, who professeth liberal sciences, and (to be short) who can live idly and without manual labour, and will bear the port, charge, and countenance of a gentleman, he shall be called master and shall be taken for a gentleman.

The "master" of Sir Thomas Smith is our present Mister or Mr., and this title is at any rate very generally bestowed, though it has its limitations.

We may perhaps venture to make some slight reference to privileges of another kind—those which spring from the exceptional position of the Church of England. In doing so we need hardly disclaim all sectarian prejudices or preferences, and still less any desire to touch upon pending controversies. With the question in its religious and even in its ecclesiastical bearings we have nothing to do. From us it challenges consideration purely on political and social grounds, and as a matter of fact and not of opinion. The Church of England comprises within its pale a large and perhaps a preponderating section of all classes, and in this sense it cannot be regarded as a class institution. But it may also be said that in another sense it founds a class and sets up a class distinction on the largest scale. It is an Established Church; all other churches are non-established. It is the Church to which the State gives its sanction, thereby recommending it as the one to be chosen in preference to any of the rest. The Sovereign is in a special sense the head of this Church and is bound by law to be in communion with it. The highest dignitary of this Church officiates at the Coronation, places the Crown on the head of the Sovereign, and recites the terms of the oath by which the Sovereign is pledged to maintain the rights and privileges of the Church. The Queen appoints a number of clergymen to act as her chaplains. She could not appoint a nonconformist minister in that capacity. What would happen if the Queen were to be seen in a Methodist chapel it is impossible to conjecture. We can only imagine the sensation that would thrill the realm. The Church is represented in the House of Lords by twenty-four archbishops and bishops, the bishops beyond this number succeeding in the order of their consecration as vacancies arise. They are not peers; they sit as Lords of Parliament and practically enjoy all the privileges of the regular peerage. The Speaker of the House of Commons appoints a

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chaplain who says prayers every day when the House meets for business, but his choice is restricted to the privileged order of clergymen. It is so with almost all public appointments of a clerical kind throughout the country. A nonconformist minister cannot legally be appointed even to the chaplaincy of a workhouse. The land is divided into parishes, and in every parish there is one minister who is maintained by law in the enjoyment of exclusive privileges. Our ancestors left tithes and glebes for the support of religion in connection with the only Church which then existed. Their descendants are now distributed among a dozen large denominations who aim at the same objects as the Church of England, and do their share in promoting the religious and moral interests of the community. But the property bequeathed by our common ancestors for religious purposes is appropriated exclusively to the maintenance of the Established Church.

What we are most concerned with is the social effect of these arrangements, and chiefly with their tendency to set up a class distinction involving privilege on one side and disability on the other. There cannot be much doubt that they have this result. Laws may be just, but they may be administered in an illiberal spirit, so administered as to disregard their intention while obeying them in the letter. Usage is more powerful than the law, and we have to consider what sort of usages the established institutions of the country help to foster. It is found in practice that the existence of an established church helps to foster among those who belong to it a feeling of superiority and exclusiveness towards nonconformists. There are thousands of public offices throughout the country which a nonconformist, however highly qualified, has no chance of obtaining. It is asked, or it comes to be known, to what denomination he belongs, and if he does not belong to the Church that fact of itself is enough to turn the balance against him. The offices in question may be maintained out of the rates to which all classes contribute, but that makes no difference. Of course the actual disqualification is never mentioned. If it were it would be repudiated with decent indignation. But it is silently acted upon all the same. A like result takes place very generally in connection with voluntary institutions, such as hospitals and schools. Other things being equal, and often when they are not equal, to belong to the Church of England, or at least not to belong to a nonconformist denomination, decides the choice. A widely established preference of this kind is privilege of a very substantial character. So far as it is produced by sympathy of opinion it may be regretted but cannot be helped, except by the inculcation of broader views, but it appears in a different light when we find it traceable to the authority and example of the State.



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## V.

IN this review of the privileged classes it may seem that one thing is absent which ought to be found in it, namely, the idea of wealth. The distinction between the privileged and the unprivileged classes is indeed often taken to be the same as that between the rich and the poor. The allusions made to the privileged classes in popular literature, and especially in speeches, are often so worded as to make it difficult to understand whether those classes are considered objectionable because they are privileged or because they are rich. Probably in most cases the two ideas of privilege and wealth are fused together as if they meant one and the same thing, and were naturally inseparable, nor is it difficult to account for the formation of this habit. The rich can allow themselves many indulgences which are out of the reach of the poor. They can live in large houses, they can surround their dwellings with gardens and pleasure grounds, they can afford to keep horses and carriages and a good many servants, perhaps to have more houses than are necessary, and to move about from one part of the country to another for the sake of health or pleasure. They do all this without working, and simply because their income is large enough to enable them to live as they please. In a very obvious sense of the word they may be considered a highly privileged section of the community, and we regard them without difficulty as a privileged class. Assuming wealth to be a privilege, it is at any rate infinitely varied in degree. Those to whom the description just given applies are comparatively few. Beneath them there are innumerable gradations till we reach the level of those whose income, though modest, is equal to all their wants. They live, perhaps, in a house of their own; they are able to save something out of their earnings or out of the profits of their trade, and are gradually accumulating a little property which they will leave to their children. These gradations of wealth come so near together that it is not easy to tell where to draw a dividing line. Below them all we come to the great mass of the population who have nothing beyond their weekly wages to subsist upon, and find them no more than sufficient—if sufficient—to maintain their families. But even among this large class there are many subdivisions, and those on the higher level may well be looked upon as privileged beings by those who occupy the lowest.

The question arises, then, whether wealth can be regarded as a privilege in the same sense as the distinctions we have been considering, and whether the wealthy class, simply because they are wealthy, are to be ranked among the privileged classes. For some help in deciding this question let us turn to our common friend, the dictionary. We find "privilege" defined (1) as a particular and

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peculiar advantage enjoyed by a person, company, or society beyond the common advantages of other individuals, and (2) as any peculiar benefit or advantage, right or immunity, not common to others of the human race. "Privilege," as a verb, that is to confer a privilege, is to grant some particular right or exemption; to invest with a peculiar right or immunity, as to privilege representatives from arrest, to privilege the officers and students of a college from military duty. The participle "privileged," the word used in the title of this paper, is defined as the enjoying a peculiar right or immunity. It will be gathered from these explanations that the ruling note of privilege is that it is something conferred; something that is not to be acquired by individual exertion; something from which all are debarred except those upon whom it is bestowed. This is the universal attribute of privilege, and it is not the attribute of wealth. The evidence of this is a matter of every-day experience. Most people try to better their condition, that is in the homely and material sense of the word. They seek to become richer than they are. Some have far greater opportunities than others, but all use, or are expected to use, the opportunities they have. They do this without asking anybody's leave. In a free country it is a right common to every member of the community. And very wonderfully is it improved. It has been said of the wealthier portion of our manufacturing communities that in the case of most of them their fathers or grandfathers wore clogs, and it is sometimes the fate of their posterity to return to clogs again. Many of the wealthiest men of this generation were born among the very poor, and so in a lesser degree, owing to the fewer opportunities afforded in former times, it has always been. When men become wealthy they are often marked out for privilege in the true sense of the word. Hence we see the sons of men who started poor and made a fortune raised to the peerage and taking their seats among our hereditary legislators. But the privileged classes and the wealthy classes are not commensurate. They are not of the same bulk, and do not cover the same area. The wealthy classes extend far and wide beyond the domain of privilege. Many of the privileged classes are comparatively poor. The shrinkage of the incomes derived from land has brought something like poverty into many an aristocratic abode, and it may almost be said that the pecuniary straits to which members of the aristocracy have been driven have helped to make poverty conventionally respectable.

The existence of a leisured class, exempt from the necessity of working for a livelihood, depends chiefly upon the right of bequest, in the exercise of which a person who has acquired wealth leaves it to his children at his death. This right, again, is one of the incidents of the institution of private property, in recognition of which the State guarantees to individuals the quiet possession of what they

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may have acquired by their own exertions or inherited from their ancestors. Private property, if not the creation of law, is dependent upon law for its protection and for its secure transmission from one individual to another. It is possible to imagine the passing of laws which would put an end to it. The State might appropriate to itself the property of all its citizens, and forbid them to acquire more. The way to do this would be to prohibit them from working for their own advantage, and to throw the results of their labour into a common fund which should belong to the whole community. This is one of the forms of socialism, the merits of which it is not by any means our purpose to discuss. What we may observe, however, is that society has never yet existed on that basis. In ancient times, and in some countries, we find something like a common possession of land, and the village communities in Russia and India still preserve some traces of the ancient practice, but in the countries of the West the possession of land in severalty, in other words its possession by private owners, seems to have been coeval with an early stage in the progress of civilisation. No great advance appears to have been made in agriculture, or, so far as evidence goes, would seem to have been possible, till a premium was put upon production by a recognition of private ownership in land. By the Brehon Laws as they existed in Ireland the land belonged to the sept or clan. It was allotted to individuals for life, and on their death was redistributed. The barbarous condition in which Ireland existed for many centuries has been ascribed to this arrangement, while the "magic" of proprietorship is held to be illustrated by the indomitable industry of the French peasantry who for the most part own the land they till. But land is a comparatively small part of the aggregate wealth of a country like ours. How much of that vast aggregate would be in existence to-day if the rights of private ownership had been abolished a hundred years ago it is needless to conjecture. It is sufficient to say that those rights are acknowledged in all civilised countries, and always have been from the time when civilisation as we understand it made any important advance. In all ages and in all countries the amount of protection afforded them by the laws of the State may be taken as the surest measure of the character of the Government and the general welfare of the people.

But while property is not privilege, the right of acquiring it being open and common to all, it must be admitted that it forms the basis of the most obvious and the most irritating of class distinctions, and carries with it many of the practical effects of privilege. The first thing that strikes us in a survey of the community is the division which everywhere exists between the rich and the poor. It may not be true, as is sometimes asserted, that with us the rich are every day becoming richer and the poor poorer. Judged by such tests as

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are within our reach, the statement is one which it would not be easy to make good. The income tax returns, the statistics of building societies, and we may add, since we are on our own ground, the marvellous results of co-operation, show that wealth is less unequally distributed at the present time than it has been at any former period of our history. Nevertheless the inequality is great, and in some respects alarming. Wealth is a form of power. It gives to those who possess it the command of labour, and makes them the stronger party in any dispute that may arise over the division of profits. Since the division is a simple one between those who find the money and those who work for wages the contest takes an abstract shape, as if two great powers were contending for victory. Capital and labour figure upon the scene like super-human beings whose interests are irreconcilable, and who are bound to fight till one of them lies crippled in the dust. In reality it is all a delusion, as we may hope will be some day demonstrated when better methods are adopted and wealth is more generally diffused. It follows almost naturally that the two classes are kept very much asunder. They do not live in the same part of the town. Cheaper dwellings and the convenience of being near their work fix the places where they are to take up their abode. They crowd together in narrow streets and dingy surroundings, while the rich betake themselves to the suburbs where the sky is not always overhung with smoke, and trees and fields are close at hand. Differences of cost and of taste prevent the two classes from sharing in the same amusements. They do not meet much even in church, though it used to be said that there the rich and the poor meet together, God being the maker of them all.

Class implies class feeling, and it is impossible to deny that the feeling exists. It exists on both sides, among the poor as well as among the rich. With the former it sometimes takes the shape of servility—a degrading vice which happily is not spreading; more frequently of habitual deference, as if some tribute were naturally due to those who are better off; while with others the feeling is one of mere dislike, seasoned with a spice of defiance and even of disdain. The rich, on the other hand, too often give themselves airs as if the mere circumstance of their being rich conferred upon them some right which their poorer neighbours do not possess. They talk to them as to inferiors, using certain forms of speech and certain tones of expression which they would never think of employing with persons on a level with themselves. They appear to forget the plain fact that assumption of this kind is sheer impertinence. The poor owe them nothing. Their wealth is but a personal accident—something which has happened to them, but conveying no legal or moral title to superiority. It is needless to say how many exceptions there are to the rule. We

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know them and honour them when they occur. If we wish to gauge the moral worth of a rich man let us hear how he addresses his workmen or his domestic servants, the porter who handles his luggage, or those who wait upon him at his club or hotel. The test is a slight one, but it is not the least decisive. The poor, who are the chief sufferers from such ill-conditioned manners, would perhaps think themselves avenged if they could see how the class feeling based on superior wealth pervades the whole of society. Those whom they group together as the rich, because they are all richer than themselves, are themselves split up into innumerable sections, which lie upon each other horizontally like the strata of some geological formation, the order in which they lie being determined by their comparative wealth. The tens of thousands, the thousands, and even the hundreds keep well together. They all know their place, or are made to know it. To a very large extent money is taken as the measure of the man. The professions cross these lines; their business brings them into contact with people of all classes, and they serve in some sense as a reconciling and uniting medium. But even their position is more or less rigidly defined. A wide social interval separates them from the tradesman and the artisan, while an interval quite as wide leaves them only a permitted and tolerated intrusion for other than professional purposes into the ranks which lie nearer the skies. Society is furrowed all over with class distinctions based solely upon wealth. If it did not happen that money sometimes makes to itself wings, ours would soon become like India—a country of castes from one generation to another.

## VI.

THE history of the privileged classes is in a broad sense the history of human society. It is a vast theme, and all we can do is to attempt to convey some conception of the process which, as a matter of fact, has led to existing social conditions. But, first, it may be necessary to disabuse ourselves of some ideas which are apt to influence our conclusions almost without our being aware of it. There is a widely-spread notion that society as we find it is the result of a deliberate arrangement devised by the ancestors of the race; that it was in some way designed and planned and finally fixed upon as the best that could be adopted. The supposition of a voluntary choice implies that there was some other plan which might have been selected had they thought fit. They might, for example, have declared that in the society of the future there should be neither kings nor nobles, neither rich nor poor, but that all its members should be placed on a footing of perfect equality as regards each other. This seems to be so fair that these distant ancestors

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in rejecting it might well be held responsible for their choice, and be regarded as justly chargeable with all the inconveniences, all the ills and wrongs, that have resulted from their unwise decision. These ideas must be set aside as the offspring of the imagination. There is nothing to justify the supposition that the subject was ever considered, that such alternative plans ever existed, or that there was ever anything in the way of consultation or choice as to the lines along which society should travel. We may almost venture to say that any such concert or decision was in the nature of things impossible. At the furthest point to which we are able to trace the existence of mankind we find them broken up into scattered and independent communities, each pursuing its own course, each developing itself out of previously existing conditions, and all more or less hostile to each other. We find, as a matter of fact, that each successive stage in the history of the race, or of any portion of the race, has been the result of the stage previously reached. One generation follows another, each inheriting the ideas and customs of its predecessor, and generally improving upon them as intelligence advances and as experience leads to the adoption of better methods, but a distinct line of continuity is maintained throughout. So we go further and further back till we reach a point where history forsakes us, and science aided by geological records takes up the lamp, enabling us to see in the glimmering twilight the remote progenitors of our race living in caves, or mud huts, or lake habitations, sharpening flints into arrow heads, and subsisting upon the raw produce of the soil and such animals as they were able to kill. Their situation cannot have been very desirable, but their desires went for nothing except as motives for bettering their condition. They had to struggle with nature, and they had to do so with very imperfect weapons. Nevertheless, there were the elements of heroism in their condition. They were the vanguard of the race; it depended upon them what succeeding generations should be, and it is of some importance to us that they came off victors in the unequal contest.

We have then to exclude from our conception of the way in which society has reached its present condition all ideas of design, of deliberation, and of pre-arranged plans. In a more exact sense than that in which the remark has been made of the English Constitution, it may be said that society is not a manufacture but a growth. It naturally follows that all thoughts of blame or reproach must equally be excluded. We have no right to censure our ancestors for not having seen things as clearly as we do. Just as fairly might we blame the child or the youth for not having the experience of the full-grown man. We may fancy that we see points where they took the wrong turn and might have done better. But they acted as we

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do, according to their lights. They acted in harmony with the spirit of the age in which they lived, making such changes as circumstances seemed to demand, and as were within their power, thus preparing a new field for the energies of their successors. Moral causation is discernible in the passage from one stage to another, but nothing like fatalism. The great secular forces in operation have to deal with the human intelligence and will, and are modified accordingly in their results. The process is a never-ending one, and the present generation has its proper place in it. We have to begin where our fathers left off, and endeavour to push the wheels of progress a little further.

The active forces at work in the formation of society are to be distinguished from its visible structure. What are they, and where shall we find them? We need not go far in our search. Here, perhaps, we may borrow an illustration from geology. We are told and unhesitatingly believe that the globe on which we live has undergone enormous and repeated changes during the millions upon millions of years that it has been in existence. All that is now dry land was once at the bottom of the ocean. Continents and seas have changed places. The distribution of land and water in our immediate neighbourhood was very different once from what it is now. There was no sea between this country and the Continent. A former school of geologists explained these changes by supposing the occurrence of tremendous catastrophes from time to time which broke in upon the settled order of things, after which it might be said that nature resumed her usual course. Lyell put an end to this theory by carefully investigating the physical agencies that are at present at work in every part of the globe, and showing that, giving them time enough, measurable by hundreds of thousands or millions of years, they are adequate to explain the changes that have taken place. We need not conjure up sudden catastrophes. The causes now at work, with results that can be seen and measured, yield a sufficient explanation.

It is much the same with the growth and development of society. To explain the various forms it has assumed and the inequalities it now exhibits we need only look at the causes which are in actual operation. It is probable that no two men who are born into the world are exactly alike in their physical and intellectual endowments. Marriages are said to be made in heaven, but as we know them on earth they may be said, as regards the mating of temperament and dispositions, to be pretty much a matter of chance, and the result is such as it may be. Some children are weak and sickly from their birth. Without great care they would not long survive, and as they grow up they are ill fitted to battle with the storms of life. Others are vigorous and hearty, and they turn out strong men, fit,

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as the saying is, for anything. The differences are as great on the side of the intellect. In some an eager curiosity seems to possess them from their childhood. They have a quick observation which is sharpened by exercise and adds every day to their practical knowledge of the world, and of the circumstances in which they live; while others are dull and indifferent, seeing but little through their eyes, and turning what they see to little account. These differences exist in every class; they are among our most familiar experiences. There are other differences which we call moral, but which have for the most part a congenital root. They may be modified by parental training, but the capacity to give such training, and the disposition to give it, only suggest a class of advantages which are very unequally distributed. But moral qualities, however acquired and however cultivated or neglected, often tell with decisive force upon a future career. The will is a mysterious power. It seems to come from our inmost self, and those, perhaps, are not wrong who see in it the very essence of our individuality. Force of will is another name for force of character. It varies with the individual, and we all know the enormous practical difference there is between a weak and a strong will. The weak will gives in at once before difficulties, refusing to contend with them, and allowing judgment, so to speak, to go by default; whereas the strong will wrestles with them, and generally ends by overcoming them. We recognise the strength that resides in a "plodding man." He may seem rather dull, but he has the faculty of not knowing when he is beaten. He pushes on quietly and steadily from day to day, and gains his end at last. These differences are not found for the first time in the present generation. They have always been at work, and from the nature of the case it is safe to assume that they must always have led to corresponding results.

Along with these differences in the natural equipment of individuals we have to recognise certain characteristics as more or less common to mankind, since they seldom fail to show themselves when there is room and opportunity for their development. Acquisitiveness is one of them—the love of possession, the love of wealth. Akin to it is another, the love of power, the instinct of domination or of domineering. We shall all readily recognise a third in a thirst for distinction, a love of fame, a desire to stand high in the estimation of the world, and more than a willingness to enjoy some outward attestation of it. Happily there are also the sympathetic virtues, the love of one's neighbours, kindness, generosity, pity. Their influence is exerted in a quiet and unobtrusive sphere, but it may be said that without them society would never have held together. It has been said that the family is the nursery ground of the social affections, the fruitful soil into which their seeds are



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thrown ; but, granting that this is true, it must also be admitted that the family invariably asserts itself as an independent interest, and becomes in some sense a powerful rival of all other interests that lie beyond its sphere. A man works for his family, all that he acquires and is able to keep he desires to leave to his family. He loves them so that if he were able he would assure to them and their descendants the perpetual enjoyment of the competence, the social position and perchance the honours which he has succeeded in procuring for himself. We have no difficulty in recognising these characteristics as existing and energetically at work within the compass of our experience, nor can we doubt that they operated as powerfully a thousand years ago as they do to-day. But the precise way in which they have exerted themselves has been determined by the stage of civilisation that was reached, by the condition of society and the temper of the age. We have amongst us a class of men whom it was once the fashion to call "the captains of industry." In earlier days they would have been captains of a different sort. The place now held by industry as a means of making fortunes was then held by the sword. Money was then scarce, and the multiplied agencies by which wealth is now acquired had no existence. Land was the chief form of wealth, and this fell to those who had the power to take and keep it. Laws were then very fragile ; they could be easily broken, and such central authority as existed was too weak, and perhaps not too willing, to enforce obedience. Turbulent spirits endowed with strong arms and strong wills had then many chances open to them which gradually disappeared before the increasing reign of law. Such men would not pass muster to-day before any moral tribunal, but they must be included among the forces by which the social fabric was reared.

## VII.

THE earliest societies of the Teutonic stock, of which we are an offshoot, appear to have been of a simple type. The affairs of each community were administered by the general body of its members, who met for the purpose at stated intervals. They were all on the same footing, owing no allegiance to any superior, and regarding each other as equals. It is likely they had slaves, consisting of enemies captured in war, strangers and persons who, having sunk into the lowest depth of poverty, sometimes it is said through gambling, had sold themselves for the means of living. But these classes were not very numerous. The great bulk of the community—the whole of it, considered politically—was composed of freemen who recognised no subordination and no inferiority among themselves. It is not necessary to suppose that there were no differences. Some

may have had more land than others; some would be distinguished by their wisdom in council, by their skill in arms, and by their knowledge of affairs, and the influence thereby acquired would tend to become hereditary in particular families, but there were no classes and no class privileges. The basis of society was democratic. Only when war broke out or an expedition was planned with a view to conquest was it necessary to fix upon a leader, and then the choice would naturally fall upon the one who was considered the wisest and the bravest. It is easy to imagine circumstances which would lead to a continuance of this arrangement. Frequent wars, frequent dissensions with other communities, the constant presence of danger from invaders of another race, would need a chief who should always be in readiness to give the alarm and lead the attack. The influence thus acquired would favour the establishment of powerful families in which the chieftainship would become more or less hereditary. In some such way as this Germany came at last to be divided among a number of potentates who, without pretending to the regal title, exercised supreme authority over the people within their several territories. They were dukes, that is leaders, of the nation. In after times, when the idea of sovereignty was introduced by the example of Rome and the conquests of Charlemagne, some of them became electors of the emperor and some of them emperors themselves. These old families or their representatives may be found among the ruling families of Germany to-day. One of them, through the Guelphs of Hanover, is on the throne of England.

The chiefs of the Teutonic people who remained at home did not become kings, but it was different with those who took the lead in foreign expeditions. The circumstances attending conquest led at once to the establishment of the regal power, and we find kings of Teutonic descent in Gaul, in the North of Italy, in Spain, and in our own country. We need only mention the Heptarchy, the seven kingdoms, as they are roughly counted, which were founded by the various English invaders and were at last moulded into one kingdom under the rule of Egbert. In this way royalty and royal families arose, but naturally a good deal else rose with them. They had their friends and associates, they required the assistance of leading men, they had to exercise their authority through persons in whom they could place confidence. Gradually a court was formed and that meant an aristocracy, at first an aristocracy by office and then an aristocracy by birth. There was a great deal of unallotted or unappropriated land out of which grants could be made to the king's favourites. By degrees the feudal system crept in first on the Continent and then in England. It was a time of violence, a spirit of rapacity widely prevailed, laws were of little force, there was no settled order. It was a great thing in such circumstances to have

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the protection of some powerful personage who was able to defend those who attached themselves to him against the attacks of other parties, powerful against the smaller men, but less powerful than himself. Hence arose a general disposition on the part of landowners to surrender their lands to some great lord, receiving them back from him on terms implying the reciprocal duties of fealty on one side and protection on the other. The system reached its height when kings entrusted the government of their provinces to some of these great lords who gradually made themselves independent of the sovereign, relying upon the support of their feudatories. In England the system was not carried so far. William the Conqueror parcelled the land out among his military followers, but he made those who held land under his great barons, as well as the barons themselves, take an oath of allegiance to himself. Originally the lands bestowed by the Conqueror were revocable at the death of the holder, but this was more a matter of theory than of practice. The barons knew that they had won them by the sword, and they were prepared to defend them by the sword against the King himself. They became, in fact, their own property, descendible to their heirs in the line of their eldest sons. Hence the custom and law of primogeniture. Hence, too, in later times, the anxiety of the peers of England and of the untitled aristocracy of all degrees to keep their estates together and send them down undiminished to their descendants. This was done at one time, as has been said, by perpetual entail, and though this practice has been abolished by the Legislature, legal ingenuity has contrived to attain the same end by means of settlements periodically renewed.

It has been necessary to trace this development in outline inasmuch as the class privileges and distinctions which we see amongst us to-day have their root in this older order of things, and especially in the feudal system. We owe to it the hereditary peerage, the prestige of birth, the idea of a nobility of blood descending through aristocratic veins from generation to generation. We owe to it the modern conception, empty and pale as it has become, of the knight, the esquire, and the gentleman. We owe to it above all the idea of class, as distinguishing a part of the community from the rest, an idea which has become seminal, giving birth to a series of classes which ascend from the broad level of undistinguished humanity, only of late emerging into citizenship, through higher and higher circles till we reach the throne. The age of feudalism has been followed by an age of industrialism. Industry itself has the oldest origin of all, for it was only by industry that the first steps were taken in the progress of mankind, and that great men had anything to quarrel about. In England, especially on the mercantile side, it obtained some honourable recognition at an early

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period, and the descendants of wool-staplers are now in the peerage. But the workers, the actual producers, the men who ploughed the land or tended the pastures, remained obscure, practically bound to the soil they tilled and prevented by the law of settlement from seeking to improve their position elsewhere. Industrialism in the modern sense of the word dates from about the middle of the last century. Its achievements have been on a gigantic scale. It has produced fortunes surpassing those of the aristocracy. It has turned the balance against them and become the dominant power in the State. But the spirit of feudalism has conquered its conquerors. They worship at the ancient shrines. They fashion themselves on the models of the past. They hunger after distinctions which but for their eagerness to possess them would by this time have been effete. We live in a democratic age. Yet more peers have been created during the last fifty years than within any former period of equal duration, and the same ratio would probably be found to hold good of the last ten years. Politicians of advanced principles accept seats in the House of Lords, are grateful for baronetcies, and appreciate the honour of being knighted. Only lately a new distinction has been bestowed upon the first magistrate in two of our largest towns. They were Mayors, and they are now Lord Mayors. This is not the place for hinting either at praise or blame. We mention these facts purely for their historical significance.

## VIII.

THESE facts suggest a question to which some reply must be given. What is the relation between class privileges and class distinctions on the one hand and civilisation on the other, and is the relation such as would enable us to say that in proportion as civilisation advances those privileges and distinctions will disappear? At first sight the answer which history dictates does not seem at all favourable to civilisation. The earliest political societies of which we have any certain knowledge were, according to modern ideas, the least civilised; certainly much less so than those which succeeded them a thousand years later. Yet in these earliest societies we find the fewest class distinctions. One might almost venture to say that there were none at all. In proportion as these earliest ages were left behind, as population and wealth increased, and a higher standard of living was introduced, class distinctions sprang up and multiplied. Wars were an early concomitant of civilisation, and as they led to conquest and subjugation, class privileges and distinctions of a very substantial and permanent character were the result. The most civilised nations of to-day are among the most warlike, but as civilisation has modified the character of war, making it at once

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more destructive while it lasts but less brutal in its effects upon the conquered, it does not produce the social changes which it once did. The growth of civilisation brought into existence new offices, new occupations, and new arts; it gave a stimulus to trade, it favoured the increase of knowledge among certain classes and in certain directions; it opened a wide field for the activities of the clergy who became its zealous allies, and were at one time the scholars, legists, statesmen, and architects of the age. As with other growths, there has been at every step a tendency to differentiation, to the creation of fresh wants, and the production of special agencies for the purpose of meeting them. It would be a mistake to suppose that there has been much foresight or much deliberate intention at work in the bringing about of these changes. The practical force employed has been the rule of thumb. Society may be said to have lived from hand to mouth, in other words, it has taken up what we now rather grandly call "the problems of the day" and given them the readiest solution. A curious uniformity may be observed in the progress of society in lands far remote and in races very different from each other. Among Teutons, Celts, and Slavs, in Italy and in Greece, we find the same primitive assemblies and an advance along almost parallel lines, special circumstances usually of a geographical character accounting for any divergence. Japan affords a remarkable illustration. It is cut off from Europe by half the world. It is inhabited by a race which has no affinity and no connection with any of ours. Yet it seems to have made its way through stages corresponding to those which figure in European history. It has had its feudal system, and it has emerged from it in much the same way that we did, but more rapidly, having the aid of foreign examples. It is now a constitutional monarchy, with a representative system and a Parliament like that at Westminster. There is a wondrous similarity in the folk lore of all nations. The most obvious explanation of these coincidences, political and mythical, is that man is pretty much the same everywhere, allowance being made for different capacities and different degrees of training, and that the human intelligence when brought face to face with the same facts generally takes the same course in dealing with them.

Ought we then to quarrel with civilisation for having handed down to us distinctions of which our judgment disapproves and which we would like to get rid of? And is it not strange that civilisation, which we so highly honour and in the fruits of which we are so glad to participate, should be chargeable with results which seem to be anti-social and mischievous in their tendency? The truth is that the word we use to describe the general progress of mankind has no absolute meaning. "Civilisation" is a strictly relative term. Every successive state of society has been civilised as compared with that

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which preceded it. The civilisation of one age would be comparative barbarism if prolonged into the next. Its great use at any stage is to produce such intellectual and social improvements as enable us to find out its imperfections and to advance to something better. Out of one set of experiences, much richer and finer than those of our predecessors, we frame certain ideals reflecting a state of things richer and finer still, and these ideals we cannot help wishing to realise and embody for the benefit of ourselves and our children. The founders of the American Commonwealth had an opportunity of doing this systematically and on a great scale. They proclaimed the equality of mankind, they based their Constitution on a recognition of the equal rights of every member of the community, and they made it a law that titles of nobility should neither be accepted nor assumed by any of their citizens. The French followed their example at the Revolution. With them it was a work of violence, carried out with dreadful deeds of blood, and an exhibition of brutal passions which it is impossible to think of even now without horror. The violence displayed is largely due to the political difficulties which had to be overcome, and it has been sadly atoned for by the recurrent calamities of the last hundred years. We have been going through the same process for the last two centuries, and of late rather swiftly. The final result so far is that in point of political freedom, setting forms aside and looking only at realities, we are abreast of both countries, as democratic as France, and in some respects more democratic than the United States, since the people have a more direct control of the government. The thing which they have gained and we have not gained is social equality. We are still a nation of classes.

## IX.

CITIZENSHIP and the citizen. These words set forth the primary relations which exist in civilised societies, and we may look forward to a time when it will be universally acknowledged that to those relations all others are subordinate. Very important advances have already been made in this direction. By successive extensions of the franchise the political inequalities which formerly prevailed have been swept away, and all men who have assumed the ordinary responsibilities of adult life have a share in the government of the country. The share is not yet absolutely equal. Some have more votes than others. They have qualifications in various constituencies and can vote in all. Moreover, in certain elections for local purposes the value of the vote varies with the ratable value of the property to which the vote is attached. But these are merely the insignificant survivals of a restricted franchise, and are doomed to disappear.

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Broadly speaking, complete political equality now prevails. The village cottager goes to the ballot box along with the squire at the manor house. The property qualification for a seat in the House of Commons was abolished many years ago, but the wider freedom thus given in the choice of representatives has acquired fresh importance from the establishment of household suffrage. Thirty years ago there was no chance of a working man being sent to Parliament. There are several in Parliament now, and their number is likely to be increased. A Warwickshire farm labourer, Joseph Arch, has attained to the dignity of a county member, and the representative of the Durham miners, himself for many years a working miner, holds an office in the Government. In several towns and counties working men have been placed on the Commission of the Peace and share in the privileges of "the great unpaid." It is not at all improbable that before long distinguished members of the working class will be admitted to the Privy Council, and as the principle determining the distribution of honours becomes more democratic a considerable number may be held deserving of the honour of knighthood. When once the question "why not?" is fairly asked, the range through which such distinctions are distributed may become very wide indeed. Where privilege is concerned the invidiousness it involves may be got rid of in either of two ways, by levelling up or by levelling down, and those who guide affairs may as a matter of policy prefer the former to the latter. Such a course would be in harmony with the twofold character of our Government, which is at once monarchical and democratic, and it may well seem that the surest method of securing a long life to social distinctions is to increase the number of those who have a personal interest in maintaining them.

Tendencies of this kind will be regarded with suspicion by those who keep the loftier ideal of citizenship in view. Distinctions may lose much of their value by being more lavishly bestowed, but to whatever extent they retain their accustomed prestige they exert a dividing rather than a uniting force; they help to perpetuate those class divisions of which an intelligent and free people will aspire to be rid. Political equality has been reached; what is much to be desired is that political equality should give birth to a sense of social equality, and there is reason to believe that this will be its ultimate result. Of all existing class privileges the greatest is that which is represented by the House of Lords, and one of the problems of the day is to know exactly what to do with it. The hostility with which it is regarded by a large section of politicians may be to some extent softened by remembering that the House has not made itself; that the peers have not by mere ambitious devices placed themselves in the position they now occupy. The institution comes to us as one

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of the historical bequests of a distant past; it has been the growth of many centuries. That it is out of harmony with the rest of our institutions is pretty generally admitted. It resembles the Crown in being hereditary, but there the resemblance ends. The Crown exists by a Parliamentary title. Those prerogatives which formerly served as the pretext for arbitrary power have been shorn away, and those that remain are virtually put in commission to be employed partly by the Cabinet and partly by Courts of Justice in the interests of the people. The Crown really acts in a representative capacity, just as much, one may almost venture to say, as if the head of the State were elected every four years. No change of the same character has been undergone by the House of Lords. Its members, or those more distinguished members who lead the rest, are no doubt fully aware that the powers theoretically vested in them have been practically much diminished, but theory counts for something, and in point of theory the Lords are co-ordinate in authority with the Commons, while they hold no responsibility either to the Crown or to the people. Some change may be distinctly foreseen in the near future, and whatever plan may be adopted there can be but little doubt that it will be based directly or indirectly upon the principle of representation. The social influence of the peerage would probably survive its political power, but it would enter upon a descending scale, and the titles which now derive so much importance from the substantial prerogatives attached to them would become mere honorary decorations.

## X.

As aids in the advance towards social equality two things hold the first place—education and good manners. Perhaps these two things are so far identical that the one may seem to imply the other, but they are not commensurate, and they are not always found together. Education is not invariably successful in teaching the rudiments of refinement. It sometimes produces a fastidiousness and an exclusiveness which are hardly less tolerable than the pretensions founded on rank and wealth. On the other hand we often meet with persons for whom education has done but little, and worldly fortune perhaps still less, but who exhibit in their conduct a gentleness, a considerateness, and a self-restraint, together with a natural civility and courteousness, which are signally wanting in many who would deem themselves their betters. Education is wanted in order to furnish the basis of a common understanding between people whom social distinctions help to keep apart. Between knowledge and ignorance there cannot be much fellowship. A man of large information finds himself in some difficulty when brought into intercourse with another man whose knowledge extends no further



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than the occupation and incidents of his daily life. They cannot get on together very far. In matters pertaining to history and philosophy, to art and science, to literature, and even to the general principles of politics, they soon have to part company. This perhaps is the most formidable of the divisions that keep men asunder, and till this middle wall of partition is broken down the social equality towards which every feeling of patriotism and citizenship would lead us to aspire is to a large extent unattainable. Happily we live at a time when it is possible to cherish the largest hopes of improvement in this direction. The schools established under the Education Acts have brought elementary instruction within the reach of every child, while the evening classes and the higher grade schools supply educational facilities which not long ago were only within the means of the well-to-do. The working classes should strive to the utmost of their power to give their children the advantages of a good education, and at the cost of some self-denial boys and girls of promise should be sent to the best schools within reach. There are intermediate schools in most of the large towns, and it will soon be the business of the Government to establish them everywhere. Every lad who passes from the elementary to the intermediate school and thence perhaps to the university helps to bridge the chasms of the classes and to raise the standard of self-respect in that from which he sprang. The question of good manners is one of greater delicacy, though hardly of less importance. We have already made an exception which takes from it all invidiousness, and we might, had we the opportunity, single out thousands from among the poor who would serve as admirable examples of everything we could wish to suggest. Among the many incidental benefits which have been derived from trade unions and friendly societies is the moral discipline they have imposed upon their members, the effects of which are everywhere recognisable. One could hardly desire anything better than that a discipline of this kind could be extended over the whole area of the population. There is no reason why one class should have any advantage over another in those refined and gracious manners which are a part of the salt of life. They can be acquired at no cost. They need no teacher. With thought and observation everyone can teach himself. It is in this line that any class can bring itself abreast of all other classes and outstrip them if it chooses, while no achievement would tend more effectually to obliterate class distinctions. The best results of civilisation are not seen in those great enterprises which attract the attention of mankind, nor in the exploits of science, nor in the accumulation of wealth, nor in the extension of trade. Its fairest fruits are found in the habits and manners of the people.

## THE HISTORY OF THE POOR LAW.

BY GRAHAM WALLAS.

THE Poor Rates are part of the price which we have to pay for personal freedom. At the time when personal freedom was the exception rather than the rule we had no Poor Law, and indeed could have had none. In the serf villages of Saxon and Norman England, men, women, and children were all too valuable to be allowed to look to anyone but their lord for their support. A law of William the Conqueror enacts, for instance, that "bondmen shall not go away from their lands, nor make device how they may defraud their lord of the service due to him; and if any bondman shall so depart, a man shall not harbour him nor his goods, but shall cause him to return to his lord with all that is his." Within the village the steward took care that the total of his lord's people, the "souls" as the Russians would say, should not be diminished. An orphan boy might cost for the moment more than he was worth, but the steward could easily billet him on some childless pair, and he would soon be able to pay the service of three days' work a week for a freshly cleared villein's holding, or toil hopelessly all his life long as a slave with neither land nor hut of his own. A girl would some day bring up bondmen for my lord, or even if she married into another's homage would at least pay her merchet fine. The sick might recover to enrich their master, the old could be continued on their land and supported by the sons who performed their services and would some day succeed them. One even seems to detect a certain disinterested kindness in the entries on the manor rolls which record that some old woman held her scrap of land by the service of carrying water to the haymakers, or some old man did "cartage on his back."

Inside the little walled towns things were indeed different, especially in those which had won by hard bargaining the right of freeing any man's bondman who for a whole year had borne his portion of the town burdens. The personal freedom of the townsmen, restricted as it was, brought with it the problem of poverty in something like its modern form. But the townsmen were few in numbers; when Domesday Book was made the eighty English towns only contained about one hundred and fifty thousand inhabitants. They were on the whole a prosperous folk, and the trader and craftsman soon learnt the advantage of compact association, involving

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as a rule mutual succour in times of need. They were also intensely religious, and casual destitution could be dealt with by the offerings in the parish church, or the alms daily distributed at the gate of that cathedral or abbey close which sometimes took up half the space within the walls.

In such a social system public authority in the persons of the sheriff and his men would only be forced to consider what to do with the homeless and breadless, when some anxious owner of geese or swine pointed out a group of wanderers camping by the road side without visible means of subsistence. In such cases the answer was easy; if the vagrant's master were known let him be sent back to his own village, if he had no master, or his master were untraceable, let him choose one or himself be chosen. So the Assize of Clarendon (A.D. 1166) orders that the vagrant "be taken and held until his lord come to give surety for him, or until he himself find safe pledges." Lunatics wandered about and perished, the crippled and the blind and the ingrained vagabond haunted the gate-houses of the great country monasteries, but the village poor rubbed along as Langland's touching lines afterwards described them—

Poor folk in cottages

Burdened with children and chief rent to their lords;  
That which with spinning they may spare they spend it in house hire,  
And in milk and meal to make cakes with,  
To satisfy their children that cry after food.  
They themselves also suffer much hunger  
And woe in winter time, with waking a-nights  
To rise to the reel, to rock the cradle,  
To card and to comb, to clout and to wash,  
To rub and to reel, rushes to peel,  
So that it is pity to tell or in rhyme show  
The woe of these women that dwell in cottages,  
And of many men also that much woe suffer,  
Both a-hungered and athirst, who turn the best outward,  
And be abashed for to beg, and will not have it known  
What they need at their neighbours.\*

But by the beginning of the fourteenth century the old order was already breaking up. The growing practice of keeping exact accounts, and treating every village and its inhabitants merely as a means of profit making for an absentee lord, was making serfdom more intolerable and stirring up a formidable spirit of resistance. The scientific law which was being administered in the king's courts, while it often injured the serf by identifying him with the Roman slave, was nevertheless an engine by which customary rights when once gained could be stiffly upheld. Edward I., by destroying in large measure the private jurisdiction of the lords, had gone far to

\* "Vision of Piers, the Plowman" (Passus X., 72-87), written about A.D. 1390. A few modern words have been substituted for others which have become obsolete.

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paralyse that constant pitiless discipline by which alone serfdom could be made to pay. Above all, a steadily increasing number of the villagers had bought freedom from forced labour and held their lands at a money rent, or, having no land, were serving for a money wage. The towns were growing larger, wealthier, and more free, and that greatest of all revolutionary forces, a rise in the general standard of life, was beginning to make itself felt. It was therefore on a social system already showing signs of disintegration that there fell the Black Death, when it slew one-half of the population of England (1348). From that time forward serfdom was doomed. The King's Council, frightened by the rise of wages which instantly followed the Death, attempted indeed through the "Statute of Labourers" (1349) to abolish at one stroke all personal freedom below the freeholding class. "Every man and woman," they declared, "of our realm of England, of whatever condition he be, free or bond, able in body and within the age of three score years, not living by merchandise or exercising any craft, nor having of his own whereof he may live, nor land of his own about whose tillage he may himself occupy, and not serving any other, if he in convenient service (his estate considered) be required to serve, he shall be bounden to serve him which so shall him require; and take only the wages which were accustomed to be given in the places where he is to serve the twentieth year of our reign of England (1347) or five or six other common years next before, provided always that the lords be preferred before all other in retaining their bondmen or their land-tenants in their service." Thirty years later came the Peasants' Revolt, under Wat Tyler, to quicken the change. The king's troops could conquer the peasants, but they could not conquer the fact that free labour now paid better than bond. John Smyth, the old steward of the Lords of Berkeley, describing long afterwards the "husbandries" of Lord Thomas of Berkeley at the end of the fourteenth century, says: "Then began the times to alter, and he with them (much occasioned by the insurrection of Wat Tyler and generally of all the commons of the land). And then instead of managing his demesnes in each manor with his own servants, oxen, &c., under the oversight of the reeves of the manor . . . this lord began to take in other men's cattle into his pasture grounds by the week, month, and quarter . . . and after, in the reign of Henry IV., let out by the year still more and more by the acre. . . . But for the plough none gaineth thereby but he that layeth his eye or hand daily upon it."\*

Throughout the fifteenth century the improvement in agriculture which free labour rendered possible made the rents, at which services were commuted or land held, constantly easier to pay, and the wages of agricultural labourers bought more food than they have

\* "Lives of the Berkeleys." Vol. ii., p. 6.

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ever bought since. This delayed for a time the appearance of those darker social symptoms which a system of free contract in agriculture has always tended to produce. The many laws which were passed during the fifteenth century to regulate the condition of agricultural labour were merely cruel and useless attempts to bring wages back to their old level, or to prevent the labourer from moving in search of work, or living expensively, or apprenticing his children to the town crafts.

The old German rhyme which says that "when the peasant has money the whole world has it" was certainly true of this time. The towns, through their rapidly growing commerce and the increased demand for their manufactures, enjoyed a full share of that general prosperity which the Wars of the Roses and the occasional confusion of the central government did little to check. Casual distress of course even in times of prosperity is an ever-present fact of town life, but the alms of the church were supplemented in the fifteenth century by a system of "hospitals" and almshouses often officially administered by the town authorities, and by occasional gifts, such as "twelve pence to the poor man keeping the poor child," from the town chest.\*

In the sixteenth century, however, all the problems which the period of prosperity had delayed presented themselves with a tragic intensity that compelled the attention of the whole nation. The landowners found that the system of free labour gave them a more absolute power in the management of their land than they had ever enjoyed under the old system of serfdom. The rise of the wool industry tempted them to dispossess by force or fraud the customary tenants of their holdings, to turn the arable land into pasture, and to lower wages by dispensing with labour. At the same time the fall in the value of money, due at first to depreciation of the coinage and afterwards to the importation of silver, while it made customary rents almost ridiculously low and put the copyholder into as good a position as the freeholder, reduced the already small earnings of landless labourers down to the starvation point. Professor Ashley is probably right in his contention that the dissolution of the monasteries between 1536 and 1539 rather threw upon the roads a number of sturdy beggars than deprived the industrious poor of a means of assistance in hard times. Yet the dissolution at least destroyed the only widespread organisation which made any pretence of dealing with the problem, and the State was now left to face a condition of things which was becoming every year more intolerable. A vigorous discussion on the proper principles of poor relief was, during the Reformation, carried on throughout Europe both by Catholic and reforming theologians. By this discussion, and by the

\* Mrs. J. R. Green's "Town Life in the Fifteenth Century." Vol. i., p. 41.

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action of some of the continental cities, the distinction between "deserving" and "undeserving" poverty had been made familiar to every European statesman, and in 1530 an Act was passed ordering that "aged and impotent persons" should be licensed to beg within a defined district, and that beggars "whole and mighty in body and able to labour" (giving alms to whom was forbidden under penalties) should be flogged at the cart-tail and sent to the places where they were born. This was repealed in 1536 by an Act ordering that the officers of towns and parishes shall succour the impotent with voluntary charitable alms in such wise as none of them shall of necessity be compelled to wander and go openly in begging, and somewhat vaguely providing that valiant beggars shall be set and kept to continued labour in such wise as they may get their own living with the continued labour of their hands. On these lines a subsequent series of Acts proceeded gradually, introducing more and more compulsion into the gathering of "voluntary charitable alms," taking the collection of them from the church into the hands of the civil authorities, and providing more and more definitely for the means of setting the able bodied to work. Finally the great "Act of Elizabeth" (1601) established the complete system of parochial poor law as it existed almost unchanged for the next two centuries. By this Act two or more "substantial householders" were to be yearly nominated by the Justices of the Peace to serve as Overseers of the Poor in each parish. The overseers were to raise "weekly or otherwise, by taxation of every inhabitant, such competent sums of money as they shall think fit," for (a) setting to work the children of all such whose parents shall not be thought able to keep and maintain them; (b) for setting to work all such persons married and unmarried having no means to maintain them, and who use no ordinary and daily trade of life to get their living by; (c) for providing a convenient stock of flax, hemp, wool, thread, iron, and other ware and stuff, to set the poor on work; (d) for the necessary relief of the lame, old, impotent, blind, and such other among them being poor and not able to work. Children whose parents cannot maintain them are to be apprenticed till the age of four-and-twenty years in the case of boys, and twenty-one years or the time of marriage in the case of girls. The overseers may, with the leave of the Lord of the Manor, erect houses for the impotent poor on any waste or common. No provision is made for the erection of any house in which work may be done, and it was evidently intended that the flax, hemp, &c., should be worked up at the houses of the poor. But an Act of 1576 had already empowered the justices of each county to erect "houses of correction" in which "such as be already grown up in idleness and so rogues at this present" should be set to work under strict prison discipline; and the justices were now

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ordered to commit to these places or to the common gaol those who refused to work on materials provided by the parish. What they had to expect at the houses of correction may be seen from one of the rules of the Suffolk House for the year 1589—"Item, it is ordered and agreed upon that every strong or sturdy rogue at his or her first entrance into the said house shall have twelve stripes upon his bare skin with the said whip provided for the said house; and every young rogue or idle loiterer six stripes with the said whip in form aforesaid. And that everyone of them, without fail, at their first coming into the said house, shall have put upon him, her, or them some clogs, chain, collars of iron, ringle or manacle, such as the keeper of the said house shall think meet." No wonder that Mr. Hext, J.P., of Somersetshire, says that when he sent about this time "divers wandering suspicious persons to the house of correction, all in general would beseech me with bitter tears to send them rather to the gaol."

The new Act was only gradually carried out. In 1622 "A Well-wisher" complains, in a tract called "Grievous Groans for the Poor," that "though the number of the poor do daily increase, there hath been no collection for them, no not these seven years, in many parishes of this land, especially in country towns; but many of those parishes turneth forth their poor, yea and their lusty labourers that will not work, or for any misdemeanour want work, to beg, filch, and steal for their maintenance, so that the country is pitifully pestered with them; yea and the maimed soldiers that have ventured their lives and lost their limbs on our behalf are also thus requited. . . . So they are turned forth to travel in idleness (the highway to hell) . . . until the law bring them unto the fearful end of hanging." In Southampton, and probably in many other places, voluntary contributions continued to be collected by the churchwardens until the middle of the seventeenth century instead of the compulsory rate ordered by the Act, and many parishes kept to the plan laid down in an Act of 1547, and sent round the paupers to be employed by the ratepayers in turn. In particular, that part of the Act which related to the provision of work seems to have been only partially and unsuccessfully adopted from the first; and indeed the experiment of handing out a stock of flax or wool to be worked up by unemployed agricultural labourers, tramps, and village drunkards, without supervision or the means of preventing theft, must often have been abandoned as soon as it was tried. Nor was that Act of 1628 likely to be more successful which permitted the churchwardens and overseers of the poor to establish regular parish workshops, and "set up, use, and occupy any trade, mystery, or occupation, only for the setting on work and better relief of the poor." The overseers were indeed, as a rule, either hard-worked farmers, who held their

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office unwillingly and did not wish to add to its duties, or small manufacturers who would not be eager to establish a competing business.

The county houses of correction, on the other hand, being regular workhouses of a somewhat brutal type, did exercise a very real deterrent effect. But they were expensive, and the Justices of the Peace in Quarter Sessions have always been anxious to keep the county rate as low as possible. The Act of 1601 assumes their existence, but in 1596 it was stated that they had been "put down in most parts of England,"\* and an Act of 1609, after complaining that the "said houses of correction have not been built," orders that they shall be provided for every county, "together with mills, twines, cards, and such like necessary implements to set the said rogues, &c., on work." This, however, was not done in all counties, and the magistrates seem often to have fallen back upon the savage old vagrant laws, which required less troublesome and expensive arrangements. "I have heard the rogues and beggars," says a writer in 1646, "curse the magistrates unto their faces for providing such a law to whip and brand them and not provide houses of labour for them."† But the houses of correction were still thought of as a necessary part of the poor-law scheme, and the word "workhouse," when used by contemporary writers, refers to the county establishment and not to the little parish poorhouses.

Indeed almost as soon as the Act of Elizabeth began to be tested by experience it seems to have been felt that the fourteen thousand odd English parishes, with their varying and often tiny populations, were extremely inconvenient units for the administration of a system which needed detailed skill and watchfulness and a thorough grasp of principle if it was to succeed at all. In the great plan of centralised poor-law reform which Charles I. issued in the form of a commission to the Privy Council, the almost obsolete police division of the hundred is taken as the main unit of supervision. The magistrates are to gather together once a month the parish officers of each hundred, and examine them as to how far they have done their duty in the execution of the laws, reporting the results of their examination and the penalties they have inflicted to the sheriff, who is to forward their reports to the Lords Commissioners of the Privy Council. But while this sort of routine office work was just that which the county justices, already almost entirely unpaid, would be least likely to carry out with anything like regularity, Charles's whole scheme was certain to be resisted as part

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\* Rilton Turner. "History of Vagrants," p. 125.

† Quoted by Eden. Vol. i., p. 169.



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of an unconstitutional attempt to legislate without Parliament. It therefore had no effect, and the thirty thousand overseers continued to administer the law according to their own lights.

During the Civil War the law remained unchanged, and the Settlement Act of 1662, which followed directly upon the Restoration, simply gave effect to the evil tendencies which were the certain result of parochial administration. The old laws by which the lord was enabled to recapture his escaped serf had left traces upon various Vagrant Acts in the form of ill-defined directions that rogues and beggars should be sent back to the places in which they were born or had lived. The notion, however, of the wandering labourer as a valuable piece of property had now, after three centuries of free labour, given way to the proved experience that under modern social conditions he is a certain source of expense to any district which may have to deal with him. Therefore the landlords were now as anxious to force the loosely attached members of the population into each other's villages as they had been to claim them for their own. The Act of 1662 provided a regular machinery for so doing. It recites that "by reason of some defects in the law, poor people are not restrained from going from one parish to another, and therefore do endeavour to settle themselves in those parishes where there is the best stock [of materials for parish manufacture], the largest commons or wastes to build cottages, and the most wood for them to burn and destroy; and, when they have consumed it, then to another parish, and at last become rogues and vagabonds, to the great discouragement of parishes to provide stocks where it is liable to be devoured by strangers." It therefore enacts that the justices may remove out of a parish any newcomer who is not occupying a tenement worth ten pounds annually, unless he bring a certificate from the minister and one churchwarden and overseer of his former parish acknowledging their responsibility for his relief, or can induce some inhabitant to become surety for any expense which he may cause. This Act at once divided England into fourteen thousand warring communities, each determined, at whatever cost to the national welfare, to throw its burden of involuntary charity upon its neighbour. A huge code of case law, developed by hundreds of judgments and appeals, was founded upon the muddled sentences of the original Acts. Every possible subtlety as to the effect of every variety of hiring or apprenticeship, or the validity of indentures given by a parish where the churchwardens and overseers were the same persons, was defined to a hair's breadth, while the incurable vagrant, the too ambitious labourer, the widow, the lunatic, the invalid, the miserable causes and instruments of this warfare, were carted and whipped and scorned and driven backwards and forwards from one cruel little parish to another.

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The outburst of brutal materialism which followed the return of Charles II. seems to have checked even the attempts which had been made by certain of the great towns to deal with their poor on some more reasonable plan than a necessarily vain struggle to drive them over the town boundaries. During the Commonwealth there had existed a "corporation for the poor of London," whose president was the Lord Mayor. Two broadsheets issued by this body in 1655 are preserved in the British Museum. In these the governors announce that they do at present by the pious assistance of voluntary charity "maintain and educate about 100 poor children in learning and arts," and that they have from year to year given public notice of their having a stock of flax, hemp, and tow at their two work-houses at Blackfriars and in the Minories, and that "many hundreds of poor people and families are employed by the said corporation in the manufactures of spinning hemp, flax, and tow, and weaving of it into cloth." But the "pious assistance" seems to have come to an end at the Restoration, and clauses were inserted in the Act of 1662 giving powers for the reconstruction of the corporation and the levying of a special rate on the metropolitan parishes. These powers were, however, not exercised till 1696, when the end of the seventeenth century had brought about a reaction in favour of serious social and religious endeavour. In that year, William III., when appointing his new Board of Trade, instructed them to "consider of proper methods of setting on work and employing the poor, and making them useful." In the same year a Bristol merchant named John Cary proposed the erection of a workhouse for the united parishes of Bristol. Two years later a new "corporation" was formed for London, and several houses in Bishopsgate Street were bought. Into these houses were taken "the poor distressed children that lay up and down in the streets of the city," and others for each of whom the churchwardens of the various city parishes paid a shilling a week. There were about four hundred in all, and one nurse was provided for every thirty "to see that they are well fed, clothed, and lodged," as well as a labour master to superintend the spinning work, and a school master and mistress to teach them to read and instruct them in their catechism. The expense outside the contributions of the parishes was borne by voluntary charities and "that little which they all earn by their labour." It was noticed as an effect of this that in 1702 the number of young criminals that were arraigned at the session house had much decreased. Another part of the establishment was inhabited by the infirm and sick whom "four able and generous physicians and a skilful surgeon" attended gratis, the medicines being given by the Apothecaries' Company. Work for the able bodied was provided in the manner ordered by the Act of Elizabeth, the corporation advertising that they "deliver

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out at their workhouse, five days a week, wool and flax to all who come for it, to be spun at their own habitations, and pay the best prices that are anywhere paid." Beggars, vagrants, and those who refuse to work are kept in the house and put to such hard labour that "many have voluntarily entered themselves in the late king's and the queen's service, and others have transplanted themselves to the Western Plantations."

Meanwhile Cary, at Bristol, had succeeded after many difficulties in obtaining a private Act incorporating all the town parishes into a union, and had brought his fellow townsman to share for the moment his own warm philanthropy and sanguine hopes of social justice. A workhouse was established of which he writes a few years later: "The success hath answered our expectation; we are freed from beggars; our old people are comfortably provided for; our boys and girls are educated to sobriety, and brought up to delight in labour; our young children are well looked after, and not spoiled by the neglect of ill nurses; and the face of our city is so changed already that we have great reason to hope that these young plants will produce a virtuous and laborious generation, with whom immorality and profaneness may find but little encouragement."

The example of Bristol was followed by Plymouth, Worcester, Hull, Exeter, and other places, all of which obtained private Acts for the erection and support of workhouses within the next few years. The results, both in suppressing vagrancy and keeping down the rates, were so good that in 1722 a general Act was passed allowing parishes either singly or in combination to build workhouses, and to refuse relief to all who would not enter them. At once a very large number of workhouses were erected in many parts of England, and particularly in the suburban parishes of London. Their first effect, especially where the rule refusing outdoor relief was strictly enforced, was shown in a very considerable decrease of the rates.

Now those who administered the workhouses were under no illusion as to the cause of this decrease. In a book published in 1725, describing about a hundred of the newly-established houses, a correspondent from Rumford writes: "I must, sir, observe to you that the advantage of the workhouse to the parish does not arise from what the people do towards their subsistence, but from the apprehension the poor have of it." The Oxford correspondent writes: "Some who received alms of the parish appear to have money of their own, and strive to work to keep themselves out of these (as they call them) confinements." Of Maidstone it is said: "Great numbers of lazy people, rather than submit to the confinement and labour of the workhouse, are content to throw off the mask and maintain themselves by their own industry."

But the legislature and the governing classes generally were still

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dominated by the fixed idea that the work of paupers ought to be actually profitable, and would be profitable if it were carefully organised. Sir Matthew Hale, one of the wisest and best men of his time, in his "Discourse concerning Provision for the Poor," written some time before 1662, advocates the building of workhouses for unions of parishes, and the employment of the poor in them. "By this means," he says, "the wealth of the nation will be increased, manufactures advanced, and everybody put into a capacity for eating his own bread." John Locke's report to the Board of Trade, written in 1697, contains exact calculations as to the value of the labours of young children and of those who being decayed of their full strength could yet do something. Even Henry Fielding, with all his experience as a police magistrate and his own practical good sense, suggested in 1753 that the workhouse might be made a place where industrious destitute men might support themselves by the sale of their work; and lesser men than Hale and Locke and Fielding, issued, from the middle of the seventeenth till the end of the eighteenth century, a constant succession of pamphlets advocating various schemes for "employing the poor to profit" generally by engaging them in the woollen or linen manufactures. Rose-coloured accounts were given of the commercial success of such experiments in Holland, and the existence of a destitute and degraded class who may be set to work was sometimes represented as a positive advantage to a nation. "We have wool enough," write "Several Well-wishers" in 1679, "fullers earth enough, vagrants, petty felons, nurses of debauchery, &c., sufficiently enough to make cloth enough to revive the glory, wealth, strength, and safety of the whole nation."\* This idea perverted the administration of the new workhouses from their very beginning. The good moral and social effects of a well-managed workhouse were little thought of, while elaborate accounts were annually required of the cost of materials and the profit from the work. Boys who were eventually to be sent to sea were kept all day long for years at oakum-picking or twine-spinning, although their labours "did not more than pay the charge of the masters of the children's work, the wheels, and the waste they made."† Defoe indeed objected, in his tract "Giving alms no charity" (1704), to the whole plan of parish work. "Suppose now," he said, "a workhouse for the employment of children sets them to spinning of worsted; for every skein of worsted these poor children spin there must be a skein the less spun by some poor person or family that spun it before." His protest, however, seems to have had little effect, though a clause in the private Act for Worcester, "that no cloth or stuff, either woollen or

\* Proposals for promoting the woollen manufacturing promoted by "Several Well-wishers," 1679.

† An account of several workhouses, 1725.

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linen, manufactured in the workhouse or houses of correction shall be sold by retail within the city of Worcester and the liberties thereof," was a further warning that the traders might object to any serious extension of the system. But when the annual accounts of every corporation showed unanswerably that even the best-managed workhouses were certain to be a source of heavy expense, a general reaction followed in favour of the old system of parochial selfishness and brutality. Of Bristol, where John Cary had begun his experiment thirty years before with such splendid hopes, it is said, in 1728: "The magistrates have that city in such excellent regulation that foreign beggars dare not appear; they are not troubled with obnoxious sights so common with us, their workhouses are terrible enough to them, for as soon as any of them are espied in the city they are taken up and whipped."\* The explanation is given by another writer in 1732. "As soon as the poor children," he says, "came to do anything tolerably well, that they might have been assisting to the younger and less practised, they went off to sea, or were apprenticed in the city, by which means the public were so far benefited, though the corporation bore the loss of the charge of teaching them, and of all the tools with which they were to work and of the materials for it, for they made nothing perfect or merchantable from their work but only spoiled the materials."

With this reaction from the workhouse system of 1722 all consistent principle or generous motive disappeared for a time from the administration of the Poor Law. Dr. Burn, writing in 1764, describes in a long passage of stern sarcasm the conception which the country overseers had formed of their duties towards the poor—"to prevent them from coming into the parish . . . to send them out into the country a begging . . . to bind out poor children apprentices, no matter to whom or to what trade, but to take especial care that the master live in another parish . . . to pull down cottages, that is to depopulate the parish in order to lessen the poor rate." But since all parishes were equally eager to get rid of their responsibility, it was impossible for any to succeed in doing so, and every village had its list of "pensioners" receiving their weekly doles, and its frowzy little poorhouse occupied, as the report of 1834 afterwards described it, "by three or four dissolute families mutually corrupting each other."

In London things were much worse. There in the first quarter of the eighteenth century had begun that ghastly period of cheap gin and shameless drunkenness, the horror of which still lives in Hogarth's engravings. Already in 1715 a Committee of the Commons had reported that the beggars in the streets were generally

\* "Treatise on Trade and Navigation." Joshua Gee, 1728. Quoted by Eden, vol. i., p. 282.

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obliged to spend what they had taken "at some tippling house kept by the beadies, or by their friends or relations, who sell unwholesome spirits, which carry off multitudes of them every year." In 1773 the inmates of the workhouse itself, "situated, perhaps, in a narrow alley, with dirt and filth before the dwelling, and hard treatment, disease, and vermin within it," are described as being "made a job of by some of the parish officers, stripped of their little remains by the pawnbroker . . . and accustoming themselves to gin drinking to serve them as an opiate against reflection."\*

The case of the children was even more lamentable. In 1715, before the great majority of the Incorporated Workhouses were built, a Commons Committee reported that in London "a great many poor infants and exposed bastard children are inhumanly suffered to die by the barbarity of nurses, who are a sort of people void of commiseration or religion, hired by the churchwardens to take off a burden from the parish at the cheapest and easiest rates they can ; and these know the manner of doing it effectually, as by the burial books may evidently appear." In 1767, after the failure of the Incorporated Workhouses, another Committee reported that of the children born in workhouses or parish houses or received there under twelve months old in the year 1763, they were only able to trace seven in a hundred as being alive in 1765.

But the worst was yet to come. The first sixty years of the eighteenth century had been a period of good harvests, low prices, and steady wages. The last forty years of the century were marked by scanty harvests and famine prices, by the industrial dislocation resulting from the sudden development of machinery, and towards the end by an unsuccessful war with Revolutionary France abroad, accompanied by fierce sedition and tyrannous coercion at home.

In the earlier years of this dreadful period some attempt was made to reform the Poor Law on the lines suggested by actual experience. The inconvenience of the parochial area had been constantly pointed out, and by Gilbert's Act (1782) parishes were permitted to form unions and build joint poorhouses. Only the aged and infirm, however, were to be sent to these houses, and in the Gilbert unions (which included about a thousand parishes) the principle was deliberately adopted that work was to be found in the neighbourhood for the able-bodied, and that any difference between their wages and the sum necessary for their maintenance was to be made up from the rates. In 1790 another Act was passed attempting to create a system of inspection of poorhouses by justices and the clergy. But as soon as the French War had begun (1793) the Poor Laws began to be administered in a spirit of blind panic. By this time the justices

\* "Considerations on the Present State of the Poor" (anon., probably by R. Potter), 1773.

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had taken upon themselves most of the responsibility for the amount and character of the relief granted by the parish overseers. It had been originally intended by the Poor Law of Elizabeth that they should, through their right of appointing the overseers, exercise a general control over the system, but an Act of 1691 had been so interpreted as to give them an unlimited right of ordering relief themselves, in spite of the opposition of the overseers.

In 1795 the magistrates of Berkshire "and other discreet persons" at a meeting held at Speenhamland, near Newbury, announced that they would make an allowance in aid of wages to "all poor and industrious men and their families," raising the household income in each case to a minimum varying with the price of bread. Next year the clauses of the Act of 1723 allowing parishes to offer the work-house test instead of outdoor relief were definitely repealed. And so began the pauperisation of the English rural population. Hitherto relief, in theory at least, had been confined to the exceptionally unfortunate. Now the rates were to become part of the normal industrial system; farmers discharged their men in a body to take them back next day as paupers with part of their wages paid by the parish. The position in the pauperised parishes of labourers residing but not "settled" there, of unmarried men who only received a single "allowance," of those who still felt an obstinate repugnance to parish pay, or had made the overseers or magistrates their enemies, became every year more intolerable, while the wife of the soldier serving abroad, who had been told to look on relief from the rates as her just right, the self-respecting farm hand, the incurable loafer, the consumptive, the village prostitute, all were confused in one degrading system of "allowances," "bread scales" and "head money."

The whole story of the administration of the Poor Law at the end of the eighteenth and the beginning of the nineteenth century is a crucial instance of the extreme danger of class government. The English landed gentry of that time accepted with a loyalty that has always astonished foreign observers the tradition that required them to spend as members of Parliament or as magistrates a large section of their waking hours in laborious and unpaid public work. Some were mere bullying brutes, like Fielding's Squire Western, with whom "to keep their own parish under their own government and to prevent other persons from exercising authority there" was, as a member of Parliament writes in 1751,\* sufficient motive for their official work. Many, however, were just and high-minded men, and most seem to have had a dogged notion of carrying out their duty. But the strongest instinct in any class is the instinct of self-

\* "Considerations, &c., for the Better Maintenance of the Poor," by Charles Gray, M.P. for Colchester, 1751.

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preservation, and during the years following the destruction of the French aristocracy, when every campaign of the victorious French armies resulted in the sweeping away of feudal power in yet another European kingdom, this instinct overmastered all others. The people must be bribed as well as coerced into quiescence. "It was deemed wise by many persons at this time to present the Poor Laws to the lower classes as an institution for their advantage peculiar to this country, and to encourage an opinion among them that by this means their own share in the property of the kingdom was recognised."\* In the same way one may perhaps detect, in the eagerness to grant bread allowances, a fear lest the temporary high price of food shall be used by the labourers as a reason for extorting a permanent rise of wages.

Some, however, of the recklessness with which outdoor relief was then thrown open to all comers must have been due to genuine humanity. The sufferings of that time were obvious enough to move anyone who chose to open his eyes, and the outburst of social compunction which marked the French Revolution must have influenced many who were scarcely conscious of its source. A feeling of kindness must have dictated that Act of 1792, which forbade for the first time the whipping of female vagrants, or the other Act of the same year which dealt with the condition of parish apprentices. The Act, indeed, of 1696, which empowered the parish authorities to force apprentices upon unwilling masters, and that of 1703, which required all ships of over thirty tons burden to take one apprentice from the parish, must have given rise to thousands of unnoticed tragedies. Often the fate of those who were voluntarily taken by their masters was not much better. Mr. Purfeet, of Stroud, in 1723 complains of the practice of putting out children with little money "to sorry masters, that 'tis little better than murdering them." In 1747 the justices were permitted on receiving a complaint to inquire into the treatment of any apprentice "upon whose binding out no larger sum than £5 was paid," and to discharge him if necessary from his indentures. It was found, however, that masters deliberately illtreated their apprentices in order that, having received and spent the fee, they might be released from further responsibility. Now, therefore, the justices were given power to forbid all assignments of apprentices of which they did not approve, and to compel a brutal master to pay £10 towards the cost of new indentures. The new Act of 1792 had, however, but little effect. In 1802 the sickening cruelties inflicted on the parish apprentices who were sent from the South of England to work in the Lancashire cotton mills brought about another Act providing for periodical inspection. In 1810, Crabbe,

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\* "Report of the Poor Law Commissioners," 1834, p. 70.



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who put into the form of verse a minuteness of social observation worthy of Mr. Charles Booth at his best, described how Peter Grimes, the boatman, treated his wretched little victims :—

Peter had heard there were in London then—  
Still have they being!—workhouse-clearing men,  
Who, undisturbed by feelings just or kind,  
Would parish boys to needy tradesmen bind;  
They in their want a trifling sum would take,  
And toiling slaves of piteous orphans make.  
Such Peter sought, and when a lad was found  
The sum was dealt him, and the slave was bound.  
Some few in town observed in Peter's trap  
A boy with jacket blue and woollen cap;  
But none inquired how Peter used the rope,  
Or what the bruise that made the stripling stoop;  
None could the ridges on his back behold,  
Nor sought him shivering in the winter's cold;  
None put the question—"Peter, do'st thou give  
The boy his food? What, man! the lad must live;  
Consider, Peter, let the child have bread,  
He'll serve thee better if he's stroked and fed!"  
None reasoned thus—and some, on hearing cries,  
Said, calmly, "Grimes is at his exercise!"

More successful was another well-meant Act of 1795, which repealed the scarcely credible laws allowing parishes to remove industrious labouring families on the plea that they might become chargeable. Further, "since poor persons are often removed or passed to the place of their settlement during the time of their sickness, to the great danger of their lives," it enacted that the justices shall suspend all orders of removal till the poor person shall be fit to travel. It was not till 1809 that justices were forbidden to remove healthy members of a family while keeping the sick or dying behind.

But the mingled fears and benevolence of the time found their fullest expression in the great Bill of one hundred and thirty clauses, which was drawn up under Pitt's superintendence during the year 1796. The speech in which Pitt first outlined his Bill is a noteworthy instance of the intellectual confusion of the time. He was criticising (Feb., 1796) a proposal of Whitbread's to revive that Act of 1563 which, in continuance of the old Statute of Labourers, had ordered the Justices of the Peace to regulate the wages of agricultural labour. Pitt had carefully read Adam Smith's "Wealth of Nations," where such laws are denounced as a gross interference with personal liberty, and practically repeated Smith's arguments as against Whitbread. The Poor Law itself, however, is only once mentioned in the "Wealth of Nations," in a passage strongly condemning the stupidities of the old Law of Settlement. Pitt had already reformed that law in the preceding session, and he again denounced the regulations which "prevented the workman from going to that

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market where he could dispose of his industry to the greatest advantage, and the capitalist from employing the person who was qualified to procure him the best returns for his advances." But he was too busy a man, and had taken to active political life too young, to be able to think out for himself the policy of poor relief which was bound to follow from the principles of *laissez faire*. Therefore, in the absence of any direct advice from Adam Smith, he drew up his own proposals on the lines of Sir M. Hale and John Locke, declaring that "upon such authority he had no difficulty in recommending the plan to the encouragement of the legislature." His Bill, accordingly, though introduced by an appeal to the new doctrine of individual liberty, was in reality a mixture of the old profit-making ideas with the dole system begotten by the fears and loose good nature of the country gentlemen of the day. The first clauses contained a scheme for the establishment of "Schools of Industry" in all parishes or unions of parishes, for employing "all or any poor persons, as well grown up persons as children, who shall want relief in the same parish and who cannot conveniently work at home," part of the expense of erection and furnishing of such places being provided by an owner's rate to be paid by occupiers and by them to be deducted from their rents. Elaborate directions are given as to the distribution of the "profits arising from the labour of the poor," and this part of the scheme assumes that the justices and overseers could, if they would, so organise the indigent as to make them both support themselves and be a source of wealth to the community. But this assumption is apparently only half believed in, for poor persons are also to be allowed to work for private employers at an insufficient living wage, and to have their wages made up from the rates to the "full wages usually given in such parish." Parish funds are further to be created (with the aid of the rates and of voluntary subscriptions) into which the poor may pay and so secure sick benefits and old-age pensions. When any poor person "shall be possessed or can obtain possession of land, or is entitled to common of pasture sufficient to maintain a cow or other animal yielding profit," any two Justices of the Peace are to be allowed to grant him a "cow or other animal" from the rates, or to direct "security to be given for the rent of such land." Nor shall the possession of real estate or visible property of the amount of £30 be any bar to the receipt of relief if such property take the form of a tenement or cottage, or tools or household furniture, wearing apparel or other necessities.

Pitt at that time was nearer to absolute power than any English statesman has been since or perhaps before, and his Bill passed in the spring of 1797 as far as the report stage with no division except in committee. But vigorous petitions poured in from parishes and

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unions all over the country protesting against the enormous increase of rates which must result from its becoming law. At the same time Jeremy Bentham, who understood, if anyone did, the political implications of the new industrial economics, wrote certain observations on the Bill which he sent in manuscript to Pitt, and possibly, after his usual fashion, to most of the leading statesmen of the day. Bentham afterwards declared that this criticism of Mr. Pitt's "plan for throwing the parish upon the parish," with its genial humour, its air of modest puzzlement, and its scorching logic, powerfully contributed to secure the abandonment of the measure. Perhaps Pitt himself, who certainly was quick enough to take a point, was really convinced. In any case the Bill was dropped with the same matter-of-course unanimity with which it had been accepted.

For the next twenty years Poor Law legislation proceeded on no discoverable principle whatsoever, excepting perhaps a steady tendency to increase the authority of the magistrates by empowering them to alter rates and strike off names from the rate book, to audit accounts, remodel the rules of workhouses, and order relief more easily against the wish of the overseers. Even when, in 1817, the first of a long series of Parliamentary Committees began to take evidence on the question, no consistent opinion emerged as to the causes or cure of the abuses which everyone acknowledged. The report of the Commons Committee of 1817 uses arguments aimed at the very existence of a Poor Law: "By diminishing the natural impulse by which men are instigated to industry and good conduct, by superseding the necessity of providing in the season of health and vigour for the wants of sickness and old age, and by making poverty and misery the conditions on which relief is to be obtained, your committee cannot but fear . . . that this system is perpetually encouraging and increasing the amount of misery it was designed to alleviate." But the same report endorses Locke's scheme of labour schools for the children of the poor, by which "the mother will be eased of a great part of her trouble in looking after and providing for them at home, and so be at more liberty to work," and the children "from their infancy be inured to work." Locke had admitted that the children's work might not pay at first, but had suggested, in a passage quoted by the committee, that if they are fed on bread and a little warm water gruel, and kept at work from three to fourteen years of age, "as much work being required from each of the children as they are reasonably able to perform, it will quickly pay its own charges with an overplus." In the same way, after stating the "wages-fund" theory in its crudest form and declaring that "by following the dictates of their own interests, landowners and farmers become, in the natural order of things, the

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best trustees and guardians for the public," the report nevertheless recommends, in a somewhat hesitating way, the establishment of parochial farms. In 1818 a Lords Committee declared that the Poor Law, "interwoven as it is with the habits of the people," ought to be "essentially maintained;" while in 1819 a Commons Committee reported against any relief being given to the able-bodied at all. The battle, in fact, between the old tradition and the new "Political Economy" was still undecided.

Meantime, while Parliament was trying to make up its mind, the legislation of 1796 and the magisterial policy which dictated the Speenhamland edict were steadily working out to their logical result. The rates actually expended on the poor, which had been under £2,000,000 in 1754, were over £4,000,000 in 1803, and were very nearly £8,000,000 in 1818. Better times and a temporary improvement in administration reduced them to about £6,000,000 in 1825, but in 1832 they were again over £7,000,000, being 10s. per head of the population, as compared with about 6s. in 1891. But poor as the country then was, the actual burden of the rates was a small evil compared with the certainty that almost all this expenditure was doing more harm than good. The State in the first third of the century, like the Church in the Middle Ages, "did but maintain the poor which it made." Here and there the general laxity of administration might enable a clever boy to be apprenticed to a skilled trade, or an aged couple to spend their last days in peace, or an energetic workman to tide over a period of ill-health. But, as a rule, the easy bounty of outdoor relief could only be accepted at the price of life-long degradation. The nominal cost of the system was probably at least doubled by the loss on the ineffective labour of those whom the "roundsmen" system billeted upon all the larger ratepayers in pauperised parishes, or part of whose wages were paid by the rates. Farmers and landowners were beginning to look upon such a condition as normal, and even to fear the effects of freedom, and to complain that "high wages and *free* labour would overwhelm them." Imprisonment and actual flogging were reappearing as the only means of enforcing industry, and the Poor Laws, themselves the result of liberty, seemed likely to reproduce the old serfdom whose tradition had never entirely died out from the country side. And those who were not supposed to work, the women whose income increased with the growth of their illegitimate families, the children and the aged, herded together in the filthy comfort of the fever-saturated poorhouse, were even worse off than the rest.

But the contest was near its end. "Political Economy" had by this time consolidated itself in the writings of Ricardo and MacCulloch, and James Mill. Malthus had demonstrated the important part which the struggle for life had played in the history

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of human society as well as in the animal world. No member of Parliament could now repeat without criticism the light-hearted argument of Mr. Charles Gray in 1751, that the Poor Law "makes young laborious people venture to marry when nothing else would, and helps to propagate a race of the most useful subjects we have." The old ideas as to the profitable employment of the poor scarcely appear in the reports of the Commons Committees of 1824 and 1828, and having been rediscovered, without a suspicion of their past history, by Robert Owen in 1812, were now associated in men's minds with revolutionary schemes of equality.

At the same time the new doctrine that human society is best managed when no man is either hindered or helped in supporting himself and his family seemed to be justified by actual experience in Poor Law administration.

In the parish of Southwell, near Nottingham, the rates had been already enormously reduced by the building of a prison-like workhouse and the exaction of labour, useless, perhaps, but severe and unpaid, as a condition of bare subsistence. Similar experiments with the same success had been tried in several other parishes.

The "laws of political economy" were vaguely felt to have established themselves in a position of gloomy orthodoxy, and when in 1832, during a lull in the fierce struggle for the Reform Bill, the Whigs in power appointed a Royal Commission on the Poor Laws, its strongest members were known and ardent partisans of the newly-accepted science. Their report, after two years of incessant labour on the part of the Commissioners and their paid assistants, was presented in 1834, and is still the most magnificent State paper in existence, admirable in form and crushing in argument. It ended by recommending a radical alteration of the whole system. Parishes were to be formed, with or without their consent, into Unions, whose accounts were to be inspected and whose by-laws were to be drawn up by a body of three Commissioners sitting in London, and represented by travelling sub-commissioners in the country. Outdoor relief to able-bodied persons was to be prohibited. Finally, and chiefly, the whole administration of the law was to be regulated on the principle that "the condition of the paupers shall in no case be so eligible as the condition of persons of the lowest class, subsisting on the fruits of their own industry."

When the report was presented the legislative zeal of the Reformed Parliament had not yet been baffled by the calculated inactivity of Lord Melbourne and his colleagues. Lord Althorpe, in introducing a Bill founded upon the recommendations of the report, apologised for the existence of a Poor Law at all, and confessed that the "more strict principles of political economy prohibited the exercise of private charity itself." After this both Commons and

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Lords seem to have thought that they were doing a comparatively moderate thing in passing the Bill, almost unchanged, by overwhelming majorities.

The three Commissioners who were immediately appointed were gentlemen of respectable abilities and moderate political opinions, with a fanatical belief in the sufficiency of the new administrative principles, who were served by sub-commissioners still more enthusiastic than themselves. Their first three annual reports showed that the rates were rapidly falling, and that relief in aid of wages had almost entirely disappeared. The Commissioners arranged for the emigration of surplus population, especially widows with children, from the South of England to the factory districts of the North. They declared that "those who have been for years idling on the roads have at last gone out of the parish, and have found work at good wages," and that "every sort of profitable employment is now sought to be obtained for the children." They circulated pamphlets urging the labourers to join independent sick clubs, and obviously hoped that steady industry and voluntary mutual insurance would combine with growing independence of character and a wholesome fear of workhouse discipline to minimise, if not to abolish, the whole burden of public relief.

Difficulties, however, were not long in coming. The years 1834-1836 were prosperous, but 1837-1843 were years of great distress, greater than had been known since 1817. The rates steadily rose again from just £4,000,000 in 1837 to £5,200,000 in 1843. And the first beginning of the distress brought with it a great popular agitation against the new law. The fact that the *Times* and the leading Tory papers joined this agitation was probably due more to the desire for revenge which the Reform struggle had left behind it than to the fear of irresponsible centralisation, which was made the chief pretext of their opposition to the "Three Bashaws of Somerset House." But both among the people and the gentry there was a very real feeling of outraged humanity. Englishmen have always been much more ready to resent the deliberate infliction of even a moderate amount of carefully measured pain than any quantity of casual brutality. And if retired generals and admirals, after a day's shooting, will work themselves into a fury over the inoculation of anthrax into a single rabbit's ear, much more did the sight of old men and women being carried off from the old workhouses to the new, and the knowledge that they would there be intentionally placed in "undesirable or perhaps repulsive conditions,"\* madden the crowds who saw them go, or heard the "hell-broth" gruel and the prison discipline of the "Bastile" described by practised orators.

\* "History of the English Poor Law," by Sir J. Nicholls (one of the first commissioners). Vol. ii., p. 439.

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The sordid abominations of the old law were soon forgotten, and the religious working man as well as the revolutionary Chartist loathed the new science which aimed, it was said, at reducing the population to Parson Malthus's standard by starving the paupers and separating man and wife in direct defiance of the word of God. Meanwhile the rates, in spite of the new law, were creeping up to their old level, and that great rise in agricultural wages for which the more sincere of the political economists had hoped did not take place. Freedom of combination was the first condition of such a rise, and on the very night after the new Poor Law was introduced, Lord Howick repeated the refusal of the Whig Cabinet to interfere with that flagrant sentence of transportation upon the Dorchester labourers which made combinations in agriculture impossible.

The opposition to the new law soon penetrated to the House of Commons, and it was with increasing difficulty that the powers of the Commissioners were from time to time renewed. At last, in 1847, the Poor Law Commission was dissolved, two out of the three worthy gentlemen of the day disappeared, having perhaps taken themselves rather too seriously as solitary protesters against an evil world, and an official Poor Law Board with a Parliamentary head was created. By 1871, so many duties of various kinds had been assigned to the department that it took the name of the Local Government Board, which it still retains. Sixty years have now passed since the new Poor Law was first enacted. During that time the great evil noted by the Commissioners of 1834, the relief of able-bodied men in aid of wages or as a premium upon idleness, has practically disappeared. Of the 728,042 persons in receipt of relief on the first of July, 1891, there were only 3,641 adult men in good health receiving indoor and 3,419 out-door relief—these last being helped only in some urgent crisis. There were at the same time not more than 6,351 women in health inside the workhouses, and 52,679, almost all of whom were widows, receiving relief outside. Our pauper population now consists of deserted or orphan children, helpless old men and women, invalids, and lunatics. Their number has remained wonderfully steady for the last twenty years, though it does not at present increase with the increasing population. But the amount spent in their relief does slowly increase, and there is no sign of that extinction of the poor rates which most political economists in the early part of the century looked for as a result of good administration. And in the light of the carefully recorded experience of sixty years the principle that "the situation of the paupers shall not be made really or apparently so eligible as the situation of the independent labour of the lowest class" is no longer looked upon as providing a simple and easy resolution of the whole problem.

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The idea of profitable expenditure has come in to disturb the rigid debit and credit of the classical economy. It has come to be seen that each shilling which was saved by the deliberate dreariness and penury of the infirmary wards in the early union workhouses was a loss and not a gain to a community, seeing that the length of every illness was thereby increased. The pauper invalid is now generally handed over to a trained staff in a properly equipped hospital, with instructions that he is to be made well as soon as possible. Even in the case of the lunatics, to whom everything must be given and from whom nothing can be received, the community thinks well to spend freely on the means of mere happiness. In the treatment of the children the new economy and the old are still confused. It is true that no serious attempt is made to render their condition in the workhouse schools "really and apparently" worse than it was when they were starving in the slums. But they are still too often fed on an intentionally monotonous diet, and clothed in an intentionally ugly dress, while more than half of them are still taught by underpaid masters, and examined, not by the regular educational authorities but by Poor Law inspectors, whose standard is intentionally low. But here, too, a rapid and general improvement both in practice and in intention is showing itself. Against such an improvement the older political economists, who assumed family solidarity as absolutely as they neglected social solidarity, would have protested as being likely to encourage parents to throw their children upon the rates; while they would have pointed to the deterrent system as likely to induce the parents to support their children by their own exertions. A saner view now recognises that the compassion of the community is sometimes more to be trusted than the compassion of the parent, and that when a father cannot or will not give his children food and education, it is sometimes better to feed and educate them ourselves, and then, if necessary, to apply to him the direct compulsion of a summons rather than the indirect compulsion of the knowledge that they are leading a prison life. The actual teaching of the pauper children will probably be taken over by the Education Department, and perhaps the healing of the sick by the sanitary authorities. Already in London the medical officer of health can send a fever patient directly to the hospitals of the Metropolitan Asylums Board without communication with the relieving officer. Possibly a day will come when the Chancellor of the Exchequer will deal directly with those old people, who with the aid of a Government pension can be trusted to look after themselves. Even then the Poor Law system, with its accumulation of stern experience, would still be required to fix and enforce the terms on which public charity can be safely granted to those who have strength to work.



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A careful study of that experience has never been so necessary as at the present moment. Hitherto the whole administration of the Poor Laws has been studiously kept from popular control. The new law of 1834 left to the justices the power of sitting and voting upon the Boards of Guardians, and ordered that the elected guardians themselves should be chosen on a high property qualification and by a plural property vote. The property qualification has been already practically abolished, and the passing of the Parish Councils Bill may at any moment abolish *ex-officio* membership and the plural vote. At the same time the great powers of the Local Government Board are controlled by a Parliament in which both parties are growing more and more democratic every year. The great masses of the people can scarcely be said to have accepted the new Poor Law; certainly few of them now understand the circumstances which made its enactment at the time inevitable. Perhaps no one of those who, at the Trades Union Congress of 1893, passed with acclamation a resolution calling on the Government to provide "honourable and profitable employment" for a million unemployed persons knew anything of the weary centuries of experiment which proved that in a free country work for work's sake may be necessary but cannot be profitable. But while there is much need for study and discussion, there is little reason for alarm and less for inaction. Experiments will again be tried, and modern statistical inquiry will after a few months ascertain and publish their results. But from the first it must be realised that a national system of relief is to be judged not by the "old" test of its effect in producing profitable work, nor by the "new" test of saving the rates, but by its success or failure in "comforting and helping the weak-hearted and strengthening such as do stand."

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## EDUCATION IN CITIZENSHIP.

BY HENRY DYER, C.E., M.A., D.SC., MEMBER OF THE SCHOOL  
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### INTRODUCTORY.

ONE of the most remarkable signs of the times is the great change which is taking place in social ideals. It is being recognised that individual and selfish interests are insignificant when compared with those of the community, and that if we look at our own lives, and all that concerns them in their physical, intellectual, or moral aspects, we see that we owe almost everything to the combined action of our predecessors and contemporaries. The growing tendency is, therefore, to appeal to our social instincts and to impress upon us the fact that the complete society of the present only is real, and that the parts of which it is composed, if they do not exist only in abstraction, at least are very subordinate in importance.

The consequence has been a great development in social legislation, and a growth in civic spirit. Hence the necessity for such a training, that every member of the community may be able to take a fair share of the work which should fall to every citizen.

The ideal which should run through all our educational and social institutions should be that which was kept in view in ancient Greek education, the characteristics of which were unity, comprehensiveness, proportion, aimfulness. It extended to the whole human being, and endeavoured to bring the various elements of the nature of the students into complete harmony in view of an end. That end was the State, in which the individual citizen was expected to find a field for all his activities. We want men who are not only able to practice a craft, but can also intelligently cast their vote and take part in the religious and political struggles of the day, and share in all social movements. In order to do this they must be able to follow intelligently the developments of political, social, or economic history far beyond the limits of their own country. In short, they must have been fully trained in the duties, they must value the privileges, and be prepared, if necessary, to defend the rights of citizenship.

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The share of the duties of citizenship which falls to individuals cannot be formulated by exact rules and regulations. That must depend largely on the special conditions, opportunities, and abilities of the persons concerned, but no one who is anxious to work need have any difficulty in finding some sphere of a social nature. The main fields for the exertion of social energy are the management of education, of parochial, municipal, or county, and in some cases of national and imperial affairs; but, in addition to these, there are many opportunities in smaller ways of helping on the progress of humanity. Improved means of recreation and enjoyment generally, and opportunities for all leading healthy and happy lives, open up wide spheres for social work. It should be strongly brought home to every citizen, through our educational institutions, churches, and other public agencies, that we owe almost all our personal advantages to the fact that we form an organised society, and that we cannot relieve ourselves of the responsibility of doing what lies in our power to advance the welfare of the community as a whole.

## WHAT MAY BE DONE IN EDUCATIONAL INSTITUTIONS.

THE great defect of our present system of education is that it is wanting to a very large extent in social aims, and is directed chiefly to the advancement of selfish interests. The idea of competition is instilled into the scholars instead of co-operation, and many of the evils of the present state of society are perpetuated and increased. If the education were made real and attractive, it would stir the intellectual activities of the scholars, and urge them on in their work without the artificial and wrong stimulus of competition with their neighbours. On the contrary, if the duty of mutual help and co-operation were prominently kept in view, not only would the educational results be better, but the whole tone of the schools would be immensely improved. Moreover, what was begun in the schools would be continued throughout life, and it would be distinctly recognised that it is the duty of all, not simply to live for themselves, or even for those directly dependent upon them, but that they ought to devote part of their energy to work which was for the benefit of the society in which they live, or of humanity generally. Hence the justification of the saying that all real social reform must begin in the schools.

Professor Bryce, M.P., has recently reminded educationists that reading and writing are no more education than the lane that leads into a field is the field itself; and you might as well try to feed a flock of sheep on the flints of the lane as send children away from school and hold them to have been prepared for their life's work with the mere possession of reading and writing. It is not the power of reading that makes the difference between one man and another so

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much as the being taught what to read and how to read, that is having acquired the taste for reading and the habit of thinking about what is read. More and more it is our task to-day not to be content with having built schools and gathered children into them, and compelled their attendance by law, and relieved the parents from the payment of fees, but to widen the scope and deepen the grasp of the teaching given, leading the child to love knowledge, and forming in it wholesome tastes and high feelings. The same distinguished writer and politician dwells especially on the importance of the teaching of civic duty. He thinks that the schoolmasters should strive to make their pupils know what is best for their country as a whole; to make them willing to place its interest above party feeling or any other sectional passion or motive; to be willing to take trouble, personal and even tedious trouble, for the well governing of the community to which they belong, be it a township or parish, a ward or a city, or a nation as a whole.

How far education fitted to prepare for such work can be given in the different kinds of educational institutions will depend on their nature and special objects and the conditions of the scholars. There should be something of it, however, through the whole of them. All the scholars should have some idea of the great institutions of the country, and the knowledge should be imparted in such a way as would inspire the wish to serve her. This knowledge should include a general conception of the constitution of the nation, the organisation and methods of government, and the functions of the various local and central authorities and the relations which they bear to one another, together with a history of these institutions in Britain, and of the chief relations of this country to foreign countries and to our own colonies. Special attention should be paid to the constitutions and powers of the local bodies of which the scholars hear or read every day, as, for instance, town and county councils, parochial boards, school boards, and sanitary authorities. The difference between the making and the administration of laws should be clearly explained, as well as the duties and responsibilities of every citizen to both these departments. The sense of civic duty would thus be cultivated, and the exercise of the voting power would be felt to be a solemn trust, on the proper performance of which would depend the future welfare of the country. The great extension of local government which is taking place makes accurate information regarding civic and local duties a national necessity. As Henry George has well said—

More and more intelligence must be devoted to social affairs, and this not the intelligence of the few, but that of the many. We cannot safely leave politics to the politicians, or political economy to college professors. The people themselves must think, because the people alone can act. The intelligence required, more—

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over, is not a mere thing of the intellect. It must be animated with religious sentiment and warm with sympathy for human suffering. It must stretch out beyond self interest, whether it be the self interest of the few or of the many. It must seek justice, for at the bottom of every social problem we shall find a social wrong.

The growing importance of social subjects is gradually showing educationists the necessity for a change being made in the methods of teaching history. Hitherto there can be little doubt that of all the ordinary school subjects history has been about the worst taught. A teacher may know a multitude of facts, names, and dates, and yet be quite unable to impart a real knowledge of history to his pupils. In order to do this he must be able to realise the great movements which influenced the lives and conditions of the people, and to distinguish between the past and the present. He must have imagination enough to realise the dead past in the living present. In short, he must not only be acquainted with the facts of history, he must know its methods. While not neglecting ancient history he must attend chiefly to what has a bearing on present day life.

\* One who is an authority in the theory and practice of education has pointed out how absurd it is to find children knowing about the Heptarchy and the feudal system, and yet not knowing how our present Parliament is constituted, and what are its duties and functions. He says he not infrequently finds, in examining candidates for the public service, students who really possess a good deal of book knowledge about the constitutions of Clarendon and the Act of Settlement showing lamentable ignorance as to the way in which laws are made at the present moment. He points out that almost all the writers on the Constitutional History of England confine themselves to accounts of the struggle between Crown and people, and into the gradual assertion of the right of representation and of what Carlyle cynically describes as the "liberty to tax oneself."

Although this is a very important part of English History, it is not the whole. Such subjects as the removal of the impediments to printing and to the diffusion of knowledge; the history of slavery and its abolition; the gradual disappearance of religious disabilities; economic and commercial reform; the imposition and working of the Poor Law; the provision for national education in the form of ancient endowments and afterwards by public grants; the reform of our representation; the growth of literature; the extension of our colonies; all these subjects deserve to be looked at separately, and to furnish the material for special lessons in the lecture form. He recommends that, concurrently with the study of history by periods, there should be arranged a series of lessons according to subjects, on this wise—

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\* Dr. J. G. Fitch.

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The Crown and its Prerogatives.  
 The House of Lords.  
 The House of Commons.  
 The History and Progress of an  
 Act of Parliament.  
 Ministers.  
 Judges.  
 Magistrates.  
 Municipal Corporations.  
 Juries.

Taxes.  
 A General Election.  
 Treason.  
 The Army.  
 The Navy.  
 The Civil Service.  
 Public Trusts.  
 The Administration of Towns  
 and Parishes.  
 Guardians of the Poor.

Such a course, carefully prepared and well illustrated by historical examples, would have the effect of making the scholars sensible of the responsibility which will devolve upon them as members of a free community; a State which asks the voluntary services of her citizens in the administration of justice, in the management of public trusts, and in the conduct of public business. Every scholar should be made to feel that he is expected to render unpaid service to the community in some shape or form. Dr. Fitch points out that this sense of civic duty is the necessary correlative to that consciousness of civic rights which Hallam and the constitutional writers are apt to dwell on so exclusively. He moreover points out the necessity for so teaching as to inspire the scholars with a love and admiration for the country we live in, and for the institutions by which we are governed. While in what usually goes by the name of patriotism there may be much that is selfish and vulgar, still patriotism is one of the things which our teaching ought to cultivate, a rational and affectionate regard for the country in which we were born and for the privileges we enjoy in it, and a noble ambition to live lives which shall be worthy of it.

The historical method of treatment might be extended to a great many subjects which might be taken up by the older scholars. Attention especially should be paid to the history of great political ideas, to the social conditions of the people and to the forces which moulded them, and the relation of these to the development of social ideas and of schemes of social reform, as shown in the history of our own country and of foreign countries.

The students will not have proceeded far before they discover a very intimate connection between the method of the tenure of land and social problems. They will find that land was originally the property of the nation, and that those who became its nominal owners did so on the condition that they performed very definite national duties. They will further find that when personal services were not required, land bore the greater part of the expense of the army and navy and of the education of the country, in short, that land has never been recognised as absolute private property, but only

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as held in trust for the benefit of the whole community. The history of the connection of land and the expense of education, from the time when the monasteries were the only schools down to the passing of the present Education Act, would start many thoughts in the minds of the students, and, while it would be neither desirable nor necessary for the teachers to enter into details of schemes of reform, these thoughts would germinate, and cause the present position of the land question to be thoroughly considered, and steps to be taken to rectify the evils connected with it.

A study of the evolution of industry from the earliest to the present time would be the best preparation for dealing with many of the problems which are now awaiting solution. The record of the various stages of our industrial development would not only show most distinctly the difficulties and dangers to be avoided, but also give a good idea of the possibilities of the future and the conditions which are necessary not only for the successful carrying on of trade and industry, but also for ensuring the welfare of the workers and of the community generally.

Special attention should be paid to the history of industrial and social institutions such as mediæval guilds, trade unions, boards of arbitration and conciliation, co-operation, friendly societies, and poor laws, and the bearing of these on the social conditions of the poorer classes should be carefully considered. Some of the relations of trade and industry should be studied, and especially the difficulties which arise between employers and workers, and how far some of the above-mentioned institutions might, if properly used, lead to the solution of industrial struggles.

The excellent scheme of study in the "Life and Duties of the Citizen," which has been inserted in the Education Department Code of Regulations for Evening Continuation Schools, under the direction of Mr. Acland, who has long taken a personal interest in this matter, is a great step in the right direction, and if it be carried out under proper conditions must lead to very important results. Its fundamental principle is that public duties accompany all forms of work in life, whatever the occupation or profession, and that serving personal interest alone is not enough. The individual benefits from a well-ordered community, and the community ought to benefit in its turn from the efforts of the individual; "all for each" should be required by "each for all." It further points out that we have no right to expect just legislation or impartial administration unless we perform with intelligence those public duties which devolve upon all, and that if we suffer injustice in connection with public affairs, we have little right to complain unless we have done our own duty. If this course of instruction were faithfully carried out in every school in the country, we would soon have an ideal of individual and civic duty

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in the community which would have a powerful effect on our social and economic conditions, and solve many of the problems with which we are now confronted.

The difficulty, however, of carrying out a complete course of study in social and political subjects in ordinary educational institutions is at once recognised when we consider how much opinions differ on such subjects, varying as they do from those of the extreme individualists to the state socialists, and any attempt to draw out a complete authorised curriculum would show even greater diversity of opinion than exists regarding religious education. All that should be attempted, therefore, should be such general truths and facts as are not disputed, and which every intelligent citizen ought to know. If in some cases the teaching had a bias in certain directions, the danger arising therefrom would be much less than the danger of neglecting to give any instruction at all. Instruction regarding civic and industrial organisations, combined with the study of history in the manner I have indicated, would prepare the way for the independent study of the subjects by private reading and the help of the various voluntary associations which exist in all parts of the country. The fundamental condition of real progress is perfect freedom of thought and action, and that is seldom possible in any organisation of an official or semi-official nature.

## FUTURE OF TRADE UNIONS.

THE most important of these voluntary associations are the trade unions (using that term in its general sense and thus including all professional and trade organisations), and it seems as if the time had now come when these ought to be considerably developed and become real modern trade guilds, which would take an interest in all that affects the welfare of the workers. The training and education of apprentices, for instance, should receive special attention, for by these means not only would the unionists keep out of their ranks all who were not worthy of the position, but they would also show that their objects were not simply "more work" but "better work," and the improvement of the intellectual, moral, and economic conditions of the workers, and ultimately the welfare of the whole community.

The trade unions, either directly or by means of literary and scientific associations which might be affiliated to them, should afford their members opportunities for the study and discussion of the wider questions which affect their interests. Especially should this be the case when the trade-unionists are also co-operators, for the fundamental principle on which co-operation should be based should not be the making of profit or dividend, but the improvement of the workers and the good of the community. In short, the trade



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unions should, like the mediæval guilds, become not simply organisations for maintaining the economic rights of the members, but living groups of men and women, animated by common principles of religious and industrial faith, and united for the satisfaction of the permanent needs of human life.

## USE OF LEISURE.

THE real education of the citizen must, it is evident, therefore be to a large extent apart from schools, colleges, and universities, and take place during his ordinary daily work and what are usually considered spare hours. This leads us to consider the proper use of leisure.

An ancient Greek philosopher has said that the chief end of education should be to enable a man to make a rational use of his leisure time, while a modern philosopher has expressed the opinion that "the future social type will neither use the products of industry for maintaining a militant organisation nor exclusively for material aggrandisement, but will devote them to the carrying on of higher activities, a type which, instead of believing that "life is for work," will hold the inverse belief that "work is for life." This ideal should be clearly kept in view in all schemes of education. As I have pointed out, even in those of a special nature, the more general aspects of human society and requirements should never be overlooked. Every man and woman should have some interest in subjects apart from those by which they earn their living, and above all in some healthy form of recreation, for we may rest assured that the means of rational enjoyment are necessities not only for individual, but also for national existence. Reading, drawing, painting, or other work of an artistic or scientific nature, should occupy a certain proportion of our leisure time, for too much excitement is demoralising both to soul and body. Physical exercise should be duly attended to, so that health may be maintained and the best intellectual efforts made possible. The necessity for moderation, however, should be impressed on all young people, for modern athletics too often degenerate into mere "sport" to afford a convenient means of betting, or into efforts to break the record in some form of exertion. Such performances do more harm than good, and very often permanently injure the health of those who indulge in them. Gymnastic exercises in well-ventilated rooms or in the open air, and games of all kinds played for the sake of the exercise they give, are very useful for developing the bodies of the young. Those of more advanced years, however, will, on the whole, find walking the most generally useful and instructive means of exercising and developing every part of the body, and at the same time affording opportunities for training the mind by observation. Not only in

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this way might the natural sciences of botany, geology, and zoology be cultivated, but also the equally interesting studies of archæology, history, and geography might be carried on to the advantage of the persons most directly concerned and to the community, for the results of the observations might often be imparted to the public by means of papers or books which would interest and instruct many in the neighbourhood, and in some cases the nation or even the whole civilised world. The wider aspect of such work would naturally lead the students to the consideration of social, economic, and political subjects. They would inquire into the manner of the lives which were led in the homes both of our large cities and country districts, and they would be compelled to consider whether these were what they might be. Their reading and observation would gradually take a more definite course, and the great problems connected with education and health, the conditions of labour, poverty, crime, and so forth, would all be seen in their extent and intensity, and would cause them to make a determined effort to improve matters. It is in this manner that all real social progress and reforms have their origin in education, for when once men's minds are prepared for any change, no power on earth either in the shape of government or general environment will prevent it taking place. Even politics depends for its ultimate victory upon educational methods and not upon clever tactics, a fact which is too often forgotten at the present day. It seems to be thought necessary that when a man attains any degree of fame or notoriety in the political world, he should henceforth form a party, and then the interests of the community are forgotten in the struggle of party politics and personal animosities. A well-known scientific man\* has remarked:—

That if the evils which are inseparable from the good of political liberty are to be checked, if the perpetual oscillation of nations between anarchy and despotism is to be replaced by the steady march of self-restraining freedom, it will be because men will gradually bring themselves to deal with political as they now deal with scientific questions; to be as ashamed of undue haste and partisan prejudice in the one case as in the other; and to believe that the machinery of society is at least as delicate as that of a spinning jenny, and as little likely to be improved by the meddling of those who have not taken the trouble to master the principles of its action.

A few of the most important problems of the future may be noted in order that the nature of the training required may be more clearly understood and carried out with a definite purpose, for much time and energy are wasted unless each one marks out for himself, in addition to more general objects, a more or less restricted sphere of action.

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\* Professor Huxley. "Science and Culture," p. 23.

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## ECONOMICS.

OF all the problems with which machinery and modern industry have brought us face to face, and the solution of which will require our most earnest efforts, probably the most urgent is the construction of a new system of economics suited to the requirements of the times, for without some guiding principles clearly understood we will be apt to drift aimlessly, or, at least, our efforts are not likely to lead to useful results. The economics of the future will differ from that of the past in regarding the true life of man, and not the mere production of wealth as the ideal to be kept in view, and the whole must be consciously dominated by a social purpose; that purpose being the raising of all men to similar chances of true life in labour. In all production the chief factor is the human factor, and whatever affects this will affect wealth production, and every effort must be subjected to the question: What effect will it have on the entire life of the nation and on humanity? The new economics will have for its starting point the ethical community of which the individual is a member, and the gulf which at present exists between morality and economics will be filled up, and wealth will be compelled to take its place as a means to an end, and not be magnified into the chief end of life.

\* The practical end of our study will be to show how most wealth may be produced at the least expense of human life and well being; not at the least expense of labour, but by forms of labour wherein a man shall find a worthy and congenial life; and how distribution of wealth can be effected, not by competition or scramble, but by the generous emulation of moral men with a definite social ideal of life before them.

Such an ideal would enable John Ruskin's conception of political economy to be realised, namely: "A system of conduct and legislature, founded on the sciences, directing the acts and impossible, except under certain conditions of moral culture."

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A PROPER system of economics having been constructed, it is absolutely essential for the solution of our social problems that we should have a system of education in which the ideals which pervade the economics should be kept in view from the earliest years of the pupils. Such a system would include all the parts we have mentioned, but in a more thorough and complete manner than at present, and would afford the training which is necessary to produce a healthy rational being, what is required to enable him to perform his duties to himself and those immediately dependent on him, and

\* William Smart. "The Old Economy and the New;" *Fortnightly Review*, August, 1891, p. 292.

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what is expected of him as a citizen who recognises that the welfare of the community is intimately bound up with his own, and is, in fact, indispensable to it.

The education of women is now receiving considerable attention, and arrangements are made for them obtaining the same opportunities as men for training, not only in branches of pure learning, but also in the applications to many professions and industries, and the full economic bearing of the subject is now being recognised, as it is seen to be the true means of arriving at a solution of many of our social problems.

## RECREATION.

CLOSELY connected with an adequate system of education is that of a rational system of recreation. This is one of the greatest needs of the present day, for it must be remembered that man is a social being, and, further, that success in every department of life depends to a large extent on his bodily health. While everything should be done to brighten the homes of the people, we have now arrived at such a stage of social development that the community should provide its members with the means not only for intellectual improvement, but also for social enjoyment and healthy recreation in the way of reading rooms, music halls, and public parks, art galleries and museums, and public institutions of all kinds. A great advance has been made in these matters during recent years, but we are still far behind the leading continental countries. While a great deal may be done by voluntary associations for the improvement of the enjoyments of the community, still I am of opinion that much of the work should be municipal in its character, at least in those departments which can be taken advantage of by the people generally. Voluntary effort will always find sufficient outlet in those matters which are of an individual and personal character. More complete arrangements for rational recreation and enjoyment would go a long way towards solving the drink problem, for it must be distinctly recognised that public houses as at present constituted, or very much worse, will never be got rid of until something better be put in their places. It must always be remembered that not only is drink the cause of poverty, but also that poverty is the cause of drink, many being driven to it in their efforts to drown their troubles. Temperance reformers often look too much to one side of the subject and fail to see the necessity not only of competing directly with drink, but also of improving general social conditions. While admitting the evils connected with intemperance they ought to remember more distinctly than they do that very often drinking habits arise from the misery, overwork, pain, and monotony of life, and that when these evils are removed the temptation to drink to excess passes away.

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A thorough system of recreation, combined with an adequate education in the relations of personal and public health, would have a great effect on moral and social conditions, and be a powerful factor in elevating the great masses of the people, for only by these means can it be brought home to a nation that the acquisition of health means the acquisition of wealth. Sir Andrew Clark recently expressed the opinion that doctors lived by the sins, ignorances, and follies of mankind. If that be so, we should not attempt to convert the world into a huge dispensary for drugs to cure moral and physical ills, but rather remove the causes of these ills by improved education and social and economic conditions.

## SOCIAL MORALITY.

A MORE unselfish system of economics would cause many of the current notions of morality and conduct to be revised. For instance, the virtue of thrift is one which is emphasised by almost all classes of teachers and preachers as one of the means of improving the condition of the masses, and no doubt, as society is at present constituted, a certain amount of thrift is not only advisable but necessary.

The well-to-do should be frugal and economical in order that they may be better able to help those who require assistance, and that should be given in such a way as to enable them to help themselves. Those who have nothing but their own industry to depend upon should save something for a rainy day, and endeavour to make some provision for sickness and old age. Children should be taught the value of thrift and encouraged to provide special things, either for their own advantage or the benefit of others. The habit would thus grow upon them, and when they became men and women they would not only take care to live within their incomes, but also to make some provision for the future. At the same time, it must be evident that thrift can never be a remedy of universal application. The income which is derived from past savings must come from present labour, and if all worked, such income would merely be a transference of a certain amount of money from one pocket to another. Moreover, the money which is said to be saved is generally employed by capitalists to increase production, so that the saving workman is helping to increase the difficulties which are constantly arising from periods of over-production and corresponding depression. The only real way to enable all to be well off is for all to perform some useful work so long as they are physically able. The effect of saving on the workman himself is very often not all that could be desired. Someone has truly said :—

England is the land of sad monuments. The saddest monument of all is, perhaps, the respectable working man, who has been erected in honour of thrift. His brains, which might have shown the world how to save men, have been spent in saving pennies; his life, which might have been happy and full, has been dulled and saddened by taking thought for the morrow.

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Instead of so much prominence being given to the orthodox lessons on thrift, it might, on the whole, be more useful if people were taught the duty of laying out their savings sensibly, and with thought for others. The subject of old-age pensions is one which is now being very much discussed, and which requires to be carefully studied in all its bearings. It ought specially to be remembered that while it is highly desirable that every person should either directly or indirectly make a provision for old age, or for those he may leave behind him, it may safely be said that with many wage earners that provision could only be paid for by such a sacrifice of present necessities as would greatly increase the risks to be provided against. With such, the best thrift is to give themselves such food, lodging, and clothing as will keep them in the best working health, and to afford their children such advantages of food, clothing, and education as will give them a fair chance of growing up strong and well qualified to take their part in the work of the world. Probably the *education of wants* is of more importance to the community than the constant inculcation of habits of thrift. An utter absence of rational wants is one of the greatest hindrances to social advancement, while a misdirection of them may be very demoralising.

It is now being recognised that the old Grecian ideal is the correct one in this respect, namely, that personal wants should be few and simple, and that temperance in all things should be the rule of individual life. On the other hand, the aim of all good citizens should be to make the corporate life full and complete, with every facility for healthy life, pleasant recreation, and instructive study and research. The ambition of many people at the present time is to save sufficient wealth to live *upon their means*, as the ordinary expression has it. An improved system of economics and of education would rapidly cause this delusion to disappear, for it would be seen that a great deal of what is generally considered accumulated wealth is nothing more than a burden on present labour. Even as it is, it is being recognised that wealth has few, if any, rights apart from duties, and in the future all who fail to take a fair share of duties will be looked upon as mental and moral weaklings and treated accordingly. How accumulated wealth is administered is an important public question, which will certainly be put in earnest in the future.

Not only in the ideas regarding such commonplace virtues as thrift and temperance, but also in the more general principles of morality, there is likely to be a change in the methods of education, and the applications to practice. Too often, at present, we find men who turn up their eyes in pious horror at a breach of the seventh commandment, which they seem to consider the full embodiment of morality, but who forget all the other parts of the

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Decalogue and the whole of the New Dispensation. They not only covet their neighbours' houses, but all that they possess, and they use every means in their power to obtain their wishes. They kill by the slow process of starvation and overwork, or by breaking the hearts and ruining the business of their smaller competitors; they lie, not of course in the vulgar way, but by their whole lives, and they set up as their gods, mammon, honours, and position; in short, they may be destitute of all the Christian virtues if they only keep up an appearance of piety, and liberally patronise the subscription lists of the churches and of institutions which are commonly called philanthropic. The most difficult feature in the matter is, that many of them do not recognise the wrong they are doing, for they have adopted a false standard of conduct and provided themselves with ample justification for all their misdeeds. Their morality has become entirely perverted by long association with the ways of mammon. Not infrequently they have a very sensitive vicarious conscience. They do not exercise a very close watch over their own moral duties, or those of corporations by which they directly profit, but they have a keen perception of the moles in their neighbours' eyes, and a feeling of intense responsibility for the conversion of the heathen.

The greatest change will, however, take place not in the personal but in the social or public virtues, for all will be trained to high ideals of public duty. It must be remembered that the first condition of any social reform is that its pioneers should be capable of some sacrifice, and it will be found that the success and extent of the reform is exactly proportioned to that capacity.

The spending and the investing of money and generally the use of wealth are what are most likely to appeal directly to individuals. When people buy cheap goods they very often forget that they buy the lives of men and women, and share in the guilt which causes their degradation or their death. When they invest their money, while they will not do the harm they see they will not see the harm they do. The multitude of public companies has removed almost all feeling of direct responsibility. It has been well said—

That a company is just a long chain, which pulls at something out of sight of the puller. You stand at one end with your capital and apply the force; at the other end it is fastened round some wretched slave of toil, and that little tug you give the chain when you purchase some new article of luxury has wrung from him—nay, her—another drop of sweat—it may be blood.

What is true of companies is true of many other forms of investment, such as house rents and foreign bonds. How many owners of property take any interest in the welfare of their tenants so long as they get their rents? How many bondholders who invest in Turkish, Egyptian, or other bonds consider for a moment that

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in doing so they become slaveholders, for whom the last coin, possibly the last handful of grain, is wrung from a wretched peasantry to pay their dividends? How many men who have the reputation of being honourable would hesitate to get rid of their shares in a rotten company, or their bonds of a bankrupt government on receiving early information of a collapse? It is good business to place such shares or bonds on the market, very likely to be bought by some widow woman, struggling to increase her income for the support of her family and herself, and who next day finds herself a beggar. In the meantime our business man goes to church regularly, and takes part in many philanthropic and charitable undertakings, and is considered a pillar of society. It almost seems as if morality demanded that a man should determine not to become rich than, having enriched himself, he should in the usual conventional manner charitably dispose of some of his wealth.

The ancient Greeks considered that to be well or nobly born was one of the best gifts of the gods. Campanella, in his "City of the Sun," written nearly four hundred years ago, said that—

The people in his ideal city laughed at us who exhibit a studious care for our breed of horses and dogs, but neglect the breeding of human beings.

Herbert Spencer has made a similar remark—

Consider (says he) the fact from any but the conventional point of view, and it will seem strange that while the raising of first-rate bullocks is an occupation on which men of education willingly bestow much time, inquiry, and thought, the bringing up of fine human beings is an occupation tacitly voted unworthy of their attention.

Men and women at present throw, on what they call the mysterious dispensations of Providence, the responsibility for their own ignorance, sensuality, or carelessness. If they were perfectly honest to themselves they could explain those so-called dispensations, and it is certain the society of the future will not accept such lame excuses for neglect in the performance of the highest duties of the race. No plea whatever can be received as an adequate excuse for ignorance of some of the chief duties and responsibilities of citizenship. All the aspects of what is usually called the "population question" in their physiological, economic, and social bearings should be carefully studied, for conditions are being evolved which will compel our teachers and legislators to recognise that the population question cannot be blinked for ever, or left to the blind workings of animal instinct. If the question were approached in a reverent spirit, as becomes its importance, it would be found that increase of knowledge and self-control in this as in other social problems are the root factors of the solution. If the foundations for sound physiological knowledge were laid in our schools, and these were followed up by



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economic and social studies, there would soon be evolved such a strong public opinion on the subject that many of our most difficult social problems would gradually disappear.

The change which will take place in the ideas of public duty and in the manner of imparting them to the rising generation may be best illustrated by the opinions which will be held with regard to education itself. At the present time a good many people who have educated their own children, or who have no children of their own to educate, say that it is a hardship for them to pay for the education of other people's. They do not complain much of poor or police rates, they do not object to prisons and lunatic asylums being erected at their expense, and they contribute willingly to all sorts of charities, which they seem to look upon as necessities to civilisation. They fail to see that education is the only safe charity, and that if it were of the proper kind it would make all the other forms unnecessary. It is long since Sir Thomas More wrote—

If you suffer your people to be ill-educated, and their manners to be corrupted from their infancy, and then punish them for their crimes to which their first education disposed them, what else is to be concluded from this, but that you first make thieves and then punish them.

Ruskin was considered a dreamer, an impracticable man, when almost forty years ago he wrote that—

In order that men may be able to support themselves when they are grown, their strength must be properly developed while they are young; and the State should always see to this—not allowing their health to be broken by too early labour, nor their powers to be wasted for want of knowledge.

He also suggested that there—

Ought to be Government establishments for every trade, in which all youths who desired it should be received as apprentices on their leaving school; and men thrown out of work received at all times.

We have not yet got so far as Ruskin indicated as desirable in the matter of education and training, but we are moving rapidly in that direction, and it seems as if the forces at work will ultimately cause all his ideals to be realised.

Free education is, in short, only a partial recognition of the fact that the world is a social organism in which it is the duty of all to share in the responsibility of providing for the proper training of every member of the community. The ideal should, therefore, be to transform all our miscellaneous kinds of charitable taxes and contributions into a school rate which will include them all, and be sufficient to provide thoroughly equipped educational institutions of every kind. When higher social ideals prevail the nation will demand that these institutions shall have the first claim on the national resources. Then, also, men and women, instead of striving after riches for themselves, which they can neither enjoy in this world nor take with them to the next, will devote their efforts

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towards making their town or county rich in institutions which can be made use of by the whole community, or in adding to their country's greatness by their works in literature or art, their discoveries in science, or their successful efforts in wise legislation and administration.

The education and social life of the future must, therefore, be largely permeated by the moral and religious element, but it must be imparted not so much in the shape of theological dogmas as in high ideals of life and duty. It should be impossible to draw a line between the religious and the secular part of our lives. Religion should be life, and life should be religion.

In the church of the future the greatest heresy will be uselessness and neglect of social duties, and the greatest sin the sin of selfishness. At present, petty, narrow, sectarian jealousies prevent the different sections of the church calling itself Christian from uniting to form a church which would be wide enough to include all good Christians, and powerful enough to regenerate the world. The formation of such a church is one of the root problems of the future, for if it were solved many of the others would solve themselves. Its chief function will be to combat vice and selfishness, to help the helpless, and to implant in man, as conviction and habit, an ever-present sense of accountability to God and disinterested duty towards man. A thoughtful writer,\* however, has reminded us that—

The service of man will not be made lighter or simpler in a democratic age. The complexity of social problems is so great, they need regarding from so many points of view, their right solution is so important, their wrong solution so perilous, that they can no longer be left to any official or limited class of inquirers. They concern all citizens, and few duties in our day are so imperative as their earnest, persistent study. They do not, happily, need much book lore. Clear heads and resolute hearts, aided by eyes open to the facts around them, will for this purpose more avail than academic culture. The modern man in search of well-being has two ends to bear in mind. First, his own self-cultivation, especially of his heart, as incomparably most important both to his own happiness and that of others. Secondly, it behoves him to help his fellows to the extent of his power by such improvements in the practice and theory of life as he can make good by sound reasons. In this direction I admit that he may encounter not prosperity but persecution or even worse, but if he is a true man he will not mind that.

The true test of morality is evidently to be found in the answer to the question—are its results social or anti-social? A man's conduct is not to be measured by his knowledge of the abstract doctrines of metaphysics and philosophy, or his belief in the dogmas of religion. As Henry George has said—

He who observes the law and the proprieties, and cares for his family, yet takes an interest in the general weal, and gives no thought to those who are trodden under foot save now and then to bestow alms, is not a true Christian, nor is he even a good citizen.

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\* J. C. Morrison. "The Service of Man." Preface, p. xxix.

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## PHILANTHROPY.

THE practice of what is usually called philanthropy is considered the legitimate outcome of religion. The very first idea, however, which we ought to get rid of, is that philanthropy as commonly understood will cure the evils of society. If we had justice between man and man, there would be little or no need for philanthropy. Ruskin has reminded us that—

This healing is only possible by means of justice—no love, no faith, no hope will do it; men will be unwisely fond, vainly faithful, unless primarily they are just, and the mistake of the best men through generation after generation has been that great one of thinking to help the poor by almsgiving, and by preaching of patience and hope, and by every other means. emollient or consolatory, except the one thing which God orders for them—justice.

Ordinary philanthropy is content with trying to put right what social and economic conditions put wrong. Real philanthropy not only does this where it is absolutely necessary in the spirit of true charity, but it also endeavours to put the social conditions themselves right. The most depressing feature in society at the present time is the fact that many who bear the character of being both philanthropic and religious, who subscribe largely to all kinds of church purposes and charitable institutions, are in their daily business submerging more than their money will ever raise. In many cases subscriptions are simply apologies for neglected duties and hush money to uneasy consciences.

While many of our philanthropic agencies have been maudlin in spirit, imbecile in methods, and consequently mischievous in results, they have at present their useful, even their sacred side. We ought, however, to remember that the object should be to get rid of them as soon as possible, and not allow them to be magnified as ends in themselves. There has already been a beginning of co-ordination of agencies which must ultimately put an end to all special societies, and their duties, if any be left, will be transferred to that society of societies which is society itself.

## DEMANDS OF LABOUR.

THE problems connected with labour and the organisation of industry are the problems which should receive the most careful study from all classes, for on their solution depend many of the other problems which demand attention.

The workers are beginning to recognise their power, and to expect that they should receive a larger share of the proceeds of their labour, and that an improvement should be made in their social conditions. It cannot be doubted that the amount and reasonableness of their demands will depend to a very considerable extent on the efficiency of their education as citizens. They cannot be accused

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of extravagance if they ask that their labour should receive sufficient reward to enable them with prudence and economy to comfortably maintain themselves and their families, and that without requiring their wives to take any part in factory or other similar work, and to make provision, either directly or indirectly, for their decent support after their labouring powers have failed, that they should have healthy and convenient houses and workshops, that they should be protected, as far as possible, from injury when following their occupations, and that their hours of labour should not be so long as to injure their health and prevent them from enjoying a reasonable amount of leisure, and that proper facilities be given for the useful enjoyment of that leisure, either in their own homes or through the public institutions of various kinds which have been already mentioned.

Although these are reasonable demands they open up many questions on which much difference of opinion exists, and therefore they should be carefully studied and discussed from all points of view, so that their bearings may be fully understood and public opinion educated in such a way as to lead to solutions which will advance the welfare of the whole community. Another demand which is being made with increasing intensity, by those who cannot find employment in the usual manner, is the right to labour in order to obtain at least the necessities of life without subjecting the labourers to the taint of pauperism.

This also seems reasonable, but great care must be taken in making arrangements to meet it, for those which at first sight may seem the simplest and most direct may in the end only make conditions worse. Hence the necessity for a careful study of all the economic bearings of the problem. No possible objections, however, can be taken to arrangements which permit those who cannot otherwise obtain work to raise the food needed for their own maintenance. While admitting that improved legislation and administration may do a good deal for the improvement of the conditions of the workers, it must be always distinctly recognised that the emancipation of labour is not so much an affair of legislation or agitation as of morals. There is no power on earth that can emancipate men who are slaves to degrading passions or habits, or who are awanting in dignified self-respect. Contrariwise, there is no power on earth can hold down working men, whose habits are wholesome, who put their hearts and their brains into their work as well as their arms, and who meet equals and superiors alike with courteous self-reliance.

After all, true education will be found the most effective means of attaining the ideal of equality, if not of conditions, at least of opportunities, for which so many are now striving. A well-known French writer\* has said—

\* Leroy-Beaulieu. *Revue des Deux Mondes*, December, 1889.

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The social problem is before all things a religious and moral problem. It is not only a question of stomachs, it is quite as much a question of the soul. Social reform can only be accomplished by means of moral reform. In order to raise the life of the people we must raise the soul of the people. In order to reform society we must reform man, reform the rich, reform the poor, reform the workman, and reform the master, and give back to both of them what is at present lacking, equally to each of them, a Christian spirit.

Even without much legislative or administrative change, a great many of the evils from which society at present suffers would disappear if there were a more earnest cultivation of the individual sense of honourable obligation. The education of public opinion in the right direction on all social matters is therefore a very pressing duty on all who have any influence, not only because of its direct effects, but also because public opinion in a country like ours is legislation in its nebular state.

## TENDENCIES OF THE AGE.

ONE of the most useful and interesting departments of study is the comparison of the different movements which are going on at the same time, in order to ascertain how far they are all tending in the same direction, or, in the language of dynamical science, to find their effective component. It is evident that many of the tendencies of the age are not due to any extent to voluntary action, but to a dominant overmastering evolution produced by forces inherent in our system of civilisation, and however much the results may be modified in details by private enterprise and legislation, they are to a very large extent beyond the control of individuals and governments, although these may direct them in such a manner as to benefit the whole community and not simply a comparatively small section of it. It is, therefore, necessary that social reformers and legislators should carefully study the tendencies of the age, and endeavour to guide them to the highest possible good. They should be sure that their efforts are always in the right direction, for this is of more importance than the extent of the steps they take. The forces in action must inevitably bring about the necessary change of conditions by the slow and sure method of evolution as soon as men's minds and morals have been prepared for them.

As already indicated, a study of the evolution of industry would open up many subjects for discussion and consideration. Society would be seen to be in a state of unstable equilibrium. On the one side would be found the instruments and the means of production in the hands of a comparatively small number of capitalists, and on the other the great body of the people dependent on these capitalists for the means of subsistence, and the question would naturally be asked, what is to be the next stage in the evolution?

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The answer to that question might be influenced by a study of the use of machinery, and the results which it has had on the social and economic conditions of the capitalists and the workers, and probably if the students were of a very logical turn of mind they might be driven to the conclusion that the only way of solving the problems of labour was by the community taking possession of all machinery and other instruments of production, for they would feel that so long as the competitive system prevails little attention will be paid to the welfare of the workers when the introduction of new machinery is proposed. If, however, their logic were tempered by a study of history and science, they would also see that changes of conditions to be permanent must be slow, and take place only as men's minds and morals were prepared for them. They would see that an extension of the present system would inevitably lead to large monopolies, which will hold society at their mercy for the necessities of life, and that the only alternative is some form of co-operative organisation which, while attending to the welfare of the workers directly concerned, will at the same time be controlled in the interests of the whole community.

They would recognise that the preparation was taking place by the increased attention which is being paid to education, and to the changed ideals of religion. Education is beginning to widen in its objects, and it is now seen that it should not be used simply as a means for individuals "getting on," but for raising the whole standard of national life. If education of the right kind were given and properly applied, it would lead to a solution of all our social problems, and in order that it may be so it must be permeated by religious ideals. Nothing is more striking at the present day than what may be called the socialisation of religion. It is now being recognised even by theologians that religion should not be so much a creed as an experience or life, not a restraint but an inspiration, not an insurance for the next world but a programme for this world, and that the chief item in that programme should not be looking after our own safety or welfare, but saving ourselves by helping to save others and bearing some of their burdens.

The socialisation or nationalisation of education and of religion is gradually leading to the socialisation of public health. The resources of the community are being employed in the prevention of disease, which is recognised as a more rational use than the maintenance of hospitals and other institutions for the reception of those whose health has been injured or ruined by unwholesome conditions of work or existence. A great deal of what has hitherto been called philanthropy is thus being rendered unnecessary, for philanthropy, as we have seen, like everything else, follows a well-defined law of evolution.

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As the result of the various social forces at work, there has been slowly going on alongside the industrial revolution another revolution, which indeed was necessary to counteract some of the evils which arose in consequence of the industrial changes. The relations of rights and duties are being more distinctly recognised, and a revolution is taking place in men's ideas regarding social economy; the duties of property are being insisted upon, and the rights of labour are being demanded.

Legislation, which is simply public opinion in a crystallised form, has been profoundly affected, and the change in ideas has been reflected in the laws which have been enacted during recent years. These have done much to limit the power of money and to improve the position of the workers, and we have a long series of enactments which have been most effective in preventing disastrous social consequences. Among these need only be mentioned the various Acts of Parliament which repealed the disabilities of the workers and enabled them to form trade unions for their own protection and to influence legislation in their own behalf, the Factory Acts, and the numerous measures relating to sanitation and many other points affecting the welfare of the people. In fact, the struggle which for centuries has been going on between employers and employed has in great part been transferred to the floor of the House of Commons, and it has now reached what may be called its critical point. The effect of recent legislation has been to increase the power of the State over almost every department of life. The army and navy, the police and courts of justice have long been recognised as proper functions of the State, although they were at one time left to private enterprise. Public education, the post-office and telegraphs, and all their associated agencies are the most important recent efforts of the central government for the general improvement and convenience of the people.

Social reformers, however, are no believers in the centralisation of power, which too often means dull, lifeless, official routine, but, on the contrary, are of opinion that it is only possible to carry out their ideas when the power is localised, and when those who exercise it can observe all the conditions of the problems which they are called upon to solve, and hence the great development of what is usually called "Municipal Socialism." Gas and water works, public libraries, museums, art galleries, and parks now form part of the regular organisation of every large town, and in many cases steps have been taken in various directions which promise immense developments. In short, both politicians and economists are beginning to recognise, although in a somewhat blind, unconscious manner, that industrial society will not permanently remain without a systematic organisation, and that the mere conflict of private

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interests will never produce a well-ordered commonwealth of labour. As Mr. Frederick Harrison \* remarked—

That most of what is called socialism is a perfectly healthy reaction against the pragmatism that profess to be political economy. The old plutonomy we may trust is dead and buried. Socialism is in the air, and is modifying the whole current of our politics and our legislation. So far as it has yet gone, it means in the main the moralisation of our social and political system, and we may wish it a long and victorious career. That it throws up a mass of crude and suicidal "nostrums" is true enough, but these must be met by the practical sense of our political leaders and a more serious education of the people.

The tendency towards the socialisation of industries and institutions is increasing the demand for local government, so that effective and intelligent control may be exercised over the different undertakings, for with social reformers the machinery of local government is merely a means to an end, namely, the welfare of the people. In its wider aspects local government takes the form of home rule, which is merely the co-ordination of the local government of a district or country, as the case may be, all, however, subject to a certain amount of control from a central power. The truth of Carlyle's words is being recognised, namely, that "Government and co-operation are in all things the laws of life; anarchy and competition the laws of death." The development of local government and of home rule must inevitably bring about an end to the desire for empire and territorial expansion, and with it must necessarily disappear the bloated armaments which are the disgrace of our civilisation. The energy which is at present wasted on these will be employed in making the earth more healthy and our cities and towns more beautiful, in short, in transforming this rather dreary and care-worn world into a happy home for the children of men.

The various social movements which we have been considering form connecting links between individualism and socialism. This is especially the case with trade-unionism and co-operation. It must be admitted that the first of these has been entirely individualistic and selfish, but now a broader spirit is beginning to be developed, and trade-unionists see that, even from a personal point of view, they must look not only at the interests of their fellow-members, but also at those of other trades and of the community generally.

On the other hand, it must also be admitted that many who call themselves co-operators have forgotten the ideal of co-operation, and been utterly wanting in the true co-operative spirit, and that many of the works which are called co-operative are simply joint-stock companies in which the dividends are the chief concerns of the shareholders. A higher ideal, however, is gradually being evolved,

\* *Fortnightly Review*, July, 1893, p. 38.



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and it is being recognised that the first essential in co-operation is not profit or dividend, but the improvement of the conditions of the workers.

Both trade-unionists and co-operators should recognise that after all the most important aspect of the movement with which they are connected is neither the increase of wages, the shorter hours, nor the dividends. Far more important in each case is its educational value. Wages rise and fall, hours increase or diminish, and dividends fluctuate or disappear, but the educational effect on the characters of the members remains, and no one can be a good trade-unionist or a good co-operator without at the same time possessing many of the qualities which go to make a great citizen.

It must further be stated that many trade-unionists and socialists denounce both co-operation and profit sharing, and fail to see that the chief hindrances to their own proposals lie in the mental and moral unfitness of all classes of the community for anything approaching a socialistic régime, and they discourage the only practical systems which are fitted to produce the needed capacity and to assist in the evolution of a state of society in which the highest ideals of all social reformers would be fully realised, and in which it will be found that trade-unionism and co-operation are both necessary. As Mrs. Sydney Webb has put it, the proper relationship of trade-unionism and co-operation is that of an ideal marriage, in which each partner respects the individuality and assists the work of the other, whilst both cordially join forces to secure the common end, the co-operative state, in which the inequalities of wealth distribution would be redeemed by co-operation, either voluntary, municipal, or national.

The evolution in that direction would be very much hastened if men's minds were prepared for it by such an education as I have indicated, and if the churches assumed their proper attitude with regard to social problems, and pointed out with greater clearness than they do at present that destitution and crime can only be made to disappear by the spread of knowledge, and that the true millennium—the kingdom of God upon earth—can only come when truth has been discovered in all that relates to human welfare and has been called into practical effect. Moreover, knowledge must be supplemented by the feeling that the progress of civilisation and the welfare of the race depend for their development on the extension of the sense of duty which each man owes to society at large.

## POPULAR REPRESENTATIVES.

SUCH subjects as we have been considering should take a very important place in the education of those who aim at being either local administrators or imperial legislators, and yet how seldom are

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the qualifications of candidates for these positions seriously inquired into. The thoroughly respectable citizen whose ideas have never got beyond looking after the interests of himself or his class, the rich young man anxious for social position, the rising lawyer, the successful manufacturer or merchant who are willing to pledge themselves to any programme which is likely to secure for them the support of a large number of voters, are the most popular candidates with the average constituency, and our legislation proceeds in a haphazard manner.

The position of member of Parliament, although it is the most important in the country, is almost the only one which is filled by men who have not been trained in some degree for the duties they have to perform, and whose qualifications are not tested before they are allowed to undertake them. Even for local bodies much more attention should be paid to the qualifications of the members. It is quite evident that there can never be any real reform in any department of public business unless through the uprising of civic spirit throughout the country, and the consequent demand by the public that their representatives shall apply themselves to the business which they are sent to perform, namely, the carrying on of the administration and the development of the good government of the country.

The problems before us will require for their solution the best efforts of our noblest men, and if that solution is to be complete it must not simply be empirical, but scientific in the widest sense of that term. It must take into account not only the economic but also the religious, ethical, and political elements of the questions. The statesmen and administrators of the future must, therefore, be acquainted with the various factors of the problems with which they have to deal, and be able to look at them in all their bearings and not simply from their own special points of view, as is too often the case at present. They must not be content with constructing ladders whereby a few may escape from the social degradation of the masses, but they must deliberately consider, with all the aid of science and economic investigation, how the resources of the community can best be used to raise the standard of life throughout the nation.

In the matter of education especially, and therefore practically in all that refers to the welfare of the nation, it is of the greatest importance that those elected to the position of school board members should be thoroughly qualified to consider all the aspects of the problems with which they are expected to deal. They should not confine themselves to the mere administration of certain Acts of Parliament or orders of the Education Department, and the purely financial aspects of the work, but they should also use their influence

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to make the education what it ought to be, and thus cause it to have effect on the thought, the work, and the life of the people. They should have studied the history of education and the different problems which have from time to time been discussed, for nothing is more discouraging to those who are anxious to do their duty in the management of education than to find that questions which were supposed to be settled generations ago all require to be gone over again.

The work of education is the most important in the country, and the selection of those who take charge of it should not be left to sectarian or political parties. A seat at the school board should be one of the highest honours in the gift of the citizens, and should therefore be neither sought nor bought. The citizens should find out the persons best fitted for the position, and ask them as a matter of public duty to fill it to the best of their ability. If this were done, I am certain that there is sufficient public spirit in the country to ensure that men and women would be found both able and willing to undertake the work. The business of a school board is to make the education of their district as efficient as possible, due regard being had to economy, and I believe that if they showed that good work was being done the ratepayers would not grudge the money. If the work were carried out thoroughly the problems of government would become easy, and our social difficulties would gradually disappear.

## SPHERE OF GOVERNMENT.

For a considerable time, however, the subject on which the greatest differences of opinion are likely to be found among representatives of all kinds is the part which government, either local or central, should take in the affairs of the country, and especially in matters connected with trade and industry, for it raises all the questions relating to individualism and socialism.

A glance at the history of the past quarter of a century shows most distinctly, as we have seen, that the tendency is increasingly socialistic, and that events in the social and industrial worlds are all leading to a form of society in which socialism in one shape or other will play an important part. A dignitary of the Church of England has recently said "that revolution we may perhaps escape, but that evolution in the direction of socialism he believes to be inevitable."

Probably Lord Rosebery expressed the opinion which is most likely to be generally accepted when he said—

\* Do not be frightened by words or phrases in carrying out your design, but accept help from whatever quarter it may come. The age seems to be tottering

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\* Speech at Glasgow, 13th May, 1892.

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now between two powers neither of which I altogether follow, but each of which has its seductive sirens wooing the spirit of the age to advance. The one is socialism and the other is individualism. I follow neither one school nor the other, but what I think your association may look at is to borrow something of the spirit of each, to get the best qualities of each, to borrow from socialism its large conception of municipal life, and from individualism to take its spirit of self-reliance and self-respect in all practical affairs.

Unfortunately the term socialism has been discredited by extravagant proposals and violent deeds, but it is a term which needs to be claimed for nobler uses. It is quite evident that if socialism ever becomes universal it must be by a slow process of evolution, which would not only produce the necessary economic changes, but also the moral qualities which are essential to make it successful, for success is only possible with a higher form of individualism. The best schools for the production of that among the workers will be found to be improved trade unions of the kind I have mentioned, which will lead not only to co-operation in work, but in all that relates to the welfare of the members and of the community. It is probable, therefore, that the society of the not very distant future will contain a considerable admixture of trade-unionism, co-operation, and state socialism, and that it will be found not only that there is room for all, but also that all are necessary. Moreover, as we have seen, a careful study of the inevitable tendencies of those forms of joint action shows that they are all in the same direction, and further, that a moralised individualism is not opposed to any of them, and is in fact required to render them complete.

During the next quarter of a century we may rest assured that much history will be made. In the material, social, and political worlds vast forces are waiting to be born, which will mightily influence the future of humanity. The developments of science will have placed the forces of nature more within our command, the progress of opinions will have brought many of our social difficulties within the sphere of practical politics, while the power of the democracy will be so organised as to place great experiments, which may result in good or evil, under the control of the people. One of the main objects of educationists, and of social and political reformers, should be to try to ensure that the transition from the old to the new industrial and social system will be effected almost imperceptibly, and without any break of continuity. They should try to impress all, over whom they have any influence, that sudden changes in the forms of government are of little avail, and that they are only valuable when they are the products of national character. Evolution, not revolution, is the method to be followed, and, as we have seen, the tendencies of the age are all in the direction of some form of co-operation.

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Some one has truly said, "A map of the world which does not include Utopia is not even worth glancing at," for life without ideals is not truly life. If the rising generation were trained to high ideals of life and duty, and if only a small portion of the energy which is at present devoted to the pursuit of mammonism, or of the heroism which has been displayed in subjugating foreign countries, were directed and utilised in administration which had for its object the promotion of the welfare and happiness of the great masses of the people, a change might be produced within a century which would transform the world.

We may rest assured that the time has come when Britain as well as other democracies, if they are in any way to control their own destinies, must not only form a clear ideal of the goal of social organisation, but also decide as to the best and surest means of reaching that goal, and it is the duty of every citizen to endeavour to fit himself to understand the various aspects of the problems, so that he may assist in their solution by intelligent effort.

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## SOME ASPECTS OF INDUSTRIAL MORTALITY.

BY VAUGHAN NASH.

THE title of this article may seem to call for some explanation at the outset. Why, it may be asked, should statistics and information bearing upon the question of mortality be classified on social lines? Are there not divisions enough amongst us during life that the masses must be separated from the classes at death? My answer must be that though the subject is as yet in a somewhat confused and uncertain condition, sufficient is known to make it quite certain that a line, and a very deep and broad line, is drawn between the life and death of all those who give their bodily labour and skill as wage earners to the services of the community, and the children of such, and those whose occupations are light and well remunerated. It is not a matter for speculation at all, but one of hard facts; and surely it is right that we should know what are the penalties exacted for the crime or privilege, whichever it may be regarded, of hard labour, why they are imposed, and whether there seems to be any means of mitigating their severity.

I cannot deal with the question as a skilled statistician, or as a physiologist. To treat it at all adequately the best statisticians and men of science will have to be pressed into the service; but it is possible for anybody who observes the facts of life and acquaints himself with the elements of vital statistics to come to certain conclusions as to the bearing of modern industry upon the quality and extent of human life. At first sight it may seem hopeless to get beyond the familiar medical labels with which the language of the doctors and the weekly returns which are published in the newspapers by the Registrar General have familiarised us. Both in the east end and the west end the people die of diseases of the same name. Fever, influenza, and lung diseases are no respecters of persons. You may have the means of satisfying yourself that the death of your neighbour, the bricklayer, which was described as due to phthisis, was due to different causes altogether from the death of Lady C., who succumbed, so the doctor said, to the same disease. The bricklayer came by his death owing to no defects of constitution, as was the case with Lady C., but because the pursuit of his daily work led him to inhale so much of the gritty particles given off by the bricks that his lungs in the course of time became good for nothing. This was heightened by the constant exposure to all sorts of weather, and, in spite of fine physique and good constitution, he died, as we say, before his time. Or, again, we may know perfectly

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well, though we might not be able to demonstrate it in black and white, that the epidemic of diarrhœa, which has been carrying off the infants in the quarter where we live, is directly attributable to the fact that the infants' parents were poor, and consequently had to go to work when they ought to have been at home nursing the children, with the result that, what with being fed on the wrong food, with neglect, and the hot weather, they died four times as fast, or more, as the children in the healthier quarter, where the houses are larger, the play of the air more free, and the mothers do not go to work.\* The urban worker has to put up with less air and less space than, let us say, the urban employer or professional man, or the urban dividend receiver, and with far less than the countryman enjoys. The doctor has no name for the deaths which result from breathing impure air, or from living cramped up in stuffy and crowded rooms. He knows people die, and die in very large numbers from these causes, just as plants will die which have not fit soil to grow in or sufficient sunshine and air to nourish them. We can see in gardens or woods the lower branches of trees withering and going to pieces, whilst the upper ones prosper. This is simply because the underwood crowds out the air and sunshine from the lower part of the trees, whilst the top has free access to them. The interpretation of this little parable is sufficiently plain, but the doctors do not say "he died for want of air and light," or "he was crowded out of existence."

Now there are two main roads along which we must travel in our search for the causes which differentiate industrial mortality from general mortality. There is the environment of the home and the environment of the worker to be considered.

We will begin by considering how the worker is affected by town life. The modern town is, of course, a purely industrial phenomenon. The excessive crowding that we find in it occurs because the workers want to live as near to their work as they can. But the density of the population is not the only directly mischievous factor in the case. As Dr. Ogle remarks:—

The direct consequences of close aggregation are probably as nothing in comparison with its indirect consequences and concomitants. The more crowded a community the greater, speaking generally, is the amount of abject want, of filth, of crime, of drunkenness, and of excesses; the more keen is competition, the more feverish and exciting the condition of life. Moreover, and perhaps more than all, it is in these crowded communities that almost all the most dangerous and unhealthy industries are carried on.

City life, then, tends to pack together into the minimum of space a maximum of wealth-making appliances both human and material, and it is in this evil and unregulated mixture of the elements of

\* According to Dr. Drysdale, the death rate of infants in 1889 was 11 per cent in the wealthy parishes of London, and 38 per cent among the poor of the east end.

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production that we find the clue to the abnormally high death rate which prevails in many urban districts. The late Dr. Farr, whose statistical work upon these matters is historic, has brought out the relation of density of population to high death rates with admirable clearness, as the following extract from his "Vital Statistics" shows:—

It is well established that the mortality of the population of cities is generally higher than the mortality of people in the country. And it has been shown in the annual reports that there is a constant relation between the density of the population and the mortality. This has been further tested by averaging all the districts in the order of their mortality during the ten years—1861–70—and then determining the density of their population. A table presents a summary review of the results. The general mortality of the 631 districts ranged from a rate of 14 to 33 deaths in 1,000 living. If the facts are arranged in five great groups, the following result is obtained:—

(1) Where the mortality was 14, 15, or 16, the population was in the proportion of 86 persons to the square mile.

(2) Where the mortality was 17, 18, or 19, the population was 172 persons to a square mile.

(3) Where the mortality was 20, 21, or 22, the population was of the density expressed by 255 to a square mile.

(4) Where the mortality was at the rate of 23, 24, or 25, the population was of the density expressed by 1,128 to a square mile.

(5) And where the rate of mortality was 26 and upwards, the average density was expressed by 3,399 persons to a square mile.

Taking the healthy districts during 1861–70, there were 166 persons to a square mile; in all England, 367; in Liverpool, 65,823.

The following (excluding London) mortality per 1,000 *under* the age of five years is in the seven groups as under:—

	I.	II.	III.	IV.	V.	VI.	VII.
Females....	34 .. 44	.. 58	.. 76	.. 89	.. 106	.. 134	
Males .....	41 .. 51	.. 68	.. 88	.. 101	.. 118	.. 145	
	<u>7</u>	<u>7</u>	<u>10</u>	<u>12</u>	<u>12</u>	<u>12</u>	<u>11</u>
Mean .....	38	48	63	82	95	112	146

*Mem.*—The groups are numbered in their order of density.

Dr. Farr continues:—

Take the group of 51 districts called healthy for the sake of distinction, and here it is found that the annual mortality per cent of boys under five years of age was 4,246. of girls 3,501. Turn to the district of Liverpool; the mortality of boys was 14,475, of girls 13,429. Is this destruction of life to go on indefinitely? It is found that of 10,000 children born alive in Liverpool, 5,396 live five years—a number that in the healthy districts could be provided by 6,544 annual births. Then the sacrifice of the lives of men at the most productive ages, from 35 to 55, is almost equally great; the deaths out of the same number living are as *three* in the Liverpool district to any one in the natural state of the working population of extensive districts in the kingdom.

The relation of density of population to the death rate has been worked out for the next decennium by Dr. Ogle in a table of great value:—



AREA, POPULATION, DEATH RATES, AND DENSITY IN GROUPS OF DISTRICTS, 1871-80.

Annual Death Rate Per 1,000.	No. of Districts.	Area in Acres.	TEN YEARS, 1871-80.		Mean Annual Death Rate Per 1,000.	Mean Density Acres to a Person.	Persons to a Square Mile.
			Mean Population.	Deaths.			
14 and under 15 .....	8	432,480	171,244	24,804	14.48	2.53	253
15 " .....	31	1,612,844	503,594	78,570	15.60	3.20	200
16 " .....	62	3,423,169	1,379,250	229,301	16.63	2.49	258
17 " .....	102	6,586,426	2,166,690	380,980	17.58	3.04	211
18 " .....	129	9,197,922	2,787,836	516,671	18.53	3.30	194
19 " .....	95	6,797,350	2,308,721	449,736	19.48	2.94	217
20 " .....	50	3,421,448	2,450,483	503,702	20.56	1.40	458
21 " .....	46	2,412,654	2,551,807	549,573	21.54	0.95	677
22 " .....	42	1,324,840	2,692,101	607,008	22.55	0.49	1,301
23 " .....	30	938,134	2,666,484	627,660	23.54	0.35	1,819
24 " .....	27	617,059	2,088,340	569,661	24.41	0.30	2,166
25 " .....	14	312,350	1,375,652	351,318	25.54	0.23	2,819
26 " .....	5	76,227	350,681	92,062	26.26	0.22	2,944
27 " .....	6	88,669	850,906	257,247	30.23	0.10	6,144

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The foregoing figures are the last available for the whole country, and we cannot expect to have the results of the last census grouped by the Registrar for another couple of years. We shall probably find when these are published that there has been a slight improvement, that the intensity of crowding is somewhat less, and that the death rate in the crowded centres is less excessive. It does not do to be too sanguine on these matters, however. Though there is undoubtedly more vigilance and more science put into their sanitary work each year by the local authorities, local conditions are often too much for them, and such sanitary measures as are adopted apply to only a part of the mischief-making conditions. There is a general consensus of opinion now in favour of attacking infectious diseases root and branch, and eradicating their causes as far as may be. Typhoid is a conspicuous case in point, but the crusade against typhoid with the necessary measures for safe and effective drainage, though immensely important, is after all directed against only one of the monstrosities of town life. We can, however, with the help of the medical officers' reports of some of the great towns, bring Dr. Ogle's figures sufficiently up to date to satisfy ourselves as to the progress that has been made in certain typical cases. If we take the annual report on the health of the Borough of Sheffield for the year 1891, we find at a glance what seems a fairly satisfactory allowance of space, the average for the whole borough being 16·5 persons per acre. On looking a little more closely into it, however, you find that whereas the allowance in the Upper Hallam division is 0·4 persons per acre, that in Sheffield North is 234·1; in Sheffield West, 71·1; and in Sheffield South, 72·8. These great variations are instructive as showing how misleading it is to lump together the industrial and non-industrial districts of a town for the purpose of such calculations as ours. Upper Hallam is, of course, the favoured and suburban district in which dwell the manufacturing and professional classes of Sheffield, whilst the congested districts are peopled by the artisans for whose skill Sheffield is celebrated. The death rate for the entire borough is equally misleading. The death rate for the year 1891 was 23·5, which gave Sheffield the twenty-eighth position amongst the large towns. But the medical officer points out that after allocating various deaths to their proper districts and distributing those which occurred in public institutions, whereas in Upper Hallam the death rate was only 12·5, it was 33·4 in Sheffield North, and 31·7 in Sheffield West. Let us hope that the great cutlery centre is an exceptionally bad case, for its death rate was higher in 1891 by three per 1,000 than it was in 1881.

London is a remarkably healthy place taking it altogether, and the death rate has been reduced by four per 1,000 in the last twenty years. It now stands at 20 per 1,000. But London has its Upper Hallams

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as well as Sheffield, its St. George's, Hanover Square, as well as its St. George's-in-the-East. It does not make life a moment longer for the dock worker of East London or the costermonger of Southwark to know that the people of Kensington, Notting Hill, and Wandsworth are bettering their chances of life each year. The Southwark medical officer's report for the year 1892 shows that there is a district in that great wilderness of poverty where people die at the rate of 33 per 1,000 per annum—where, out of every 1,000 children born, 220 die under the age of one year. The average density for the whole of London is 67 per acre. In this district each acre is packed with 259 souls. London is well provided with some of the most magnificent open spaces possessed by any town, but the only recreation grounds in this district are the disused burying ground of St. George's Church and the Lock Burial Field, and these small and dolorous grounds are filled with plague and cholera cases. Imagine what the condition of life must be in a district where death is so rampant. A lady who has lately been much in the district, and who has spent years of her life amongst the poor of Whitechapel, told me that she did not know what poverty was till she found herself in Southwark, where semi-starvation is the chronic condition of a very large number of the inhabitants, and sickness and disease are written on innumerable faces.

Abundant similar contrasts are to be found in the metropolitan district. Thus, in Hampstead there are 30 persons to the acre; whereas in St. Giles' there are 166; in St. George's-in-the-East, 188; in the district of Marylebone, 217; and in Bethnal Green, 230. Newcastle-on-Tyne showed a death rate of 23·6 in the year 1891, but there was one district in the city which I find gives the almost incredibly high rate of 60. There is no need to multiply instances in greater or less degree, for all the manufacturing and trading centres of the country have these precipitous death frontiers dividing the poor from the well-to-do districts. There is no getting over the evidence. The city death tax, to use an expression of Dr. Farr's, is a heavy one indeed, and its incidence falls most heavily upon those whose only capital is in their health and strength. It cannot be repeated too often that the conditions under which vast numbers of us are living are abnormal. Adaptable as man is, nature draws the line somewhere, and human life simply refuses the terms which are offered to it by modern industry. That is the point to be remembered. We are subordinating happiness and comfort, banishing the beauties and delights of nature and art, and sacrificing scores of thousands of lives simply and solely because of our modern industrial arrangements. There are certain conditions under which such a sacrifice may be justified, but I fancy that few people will justify this on the strength of its results. Where, be it

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remembered, we find that a high death rate is constant, we find as a complement to it a population of stunted, feeble, and half-developed human beings. So far as they are concerned, the capacity for enjoyment, or even for demanding a better condition of things, does not exist. It may be held by some that the trading classes or the national commerce—that misleading abstraction—gain something in exchange for so many souls; however, it will not do at this stage to break off into this side of the question. It is sufficient to know that the problem being closely bound up with our trading methods, co-operators have a vital corporate interest as well as a personal one in laying hold of and, as far as may be, dealing with the facts.

The question of infant mortality is closely bound up with the whole subject of industrial health. Infants are naturally more susceptible to the conditions of life which surround them than those who have weathered the storms of childhood, and whilst they afford a test of the health of the district and the hygienic conditions to be found there, it is too often only gained at the expense of their lives. This massacre of the innocents which is going on year by year unchecked is one of the most, if not *the* most fearful thing which our town life has to show. It is all very well for people to say, as they constantly do—"Ah, but it is the parents' fault, the ignorance of the mothers or the carelessness of their neighbours with whom the child is left." How is it, then, that the child of the agricultural labourer manages to survive so much oftener than the town child? Are the mothers who live in the country so much more careful and better educated in maternal duties than those who have to bring up their offspring in the towns? The thing is absurd. The country child may have poorer parents, parents whose wages do not amount to more than one-half or one-third of the town workman's; but then, the country parents can give their children what the others cannot have—clean, fresh air and abundance of space and food which, if poor, does not consist of opiates or adulterated messes. There are, however, other aspects of the question to be considered besides the deprivation which all town children must suffer more or less from—pure air, sunshine, and space. I allude to the case of children in factory towns where the mothers are frequently working in the mills and factories. There is convincing evidence to show that there is a special factory death tax to which the children contribute as well as a city death tax. Twenty years ago Dr. Farr constructed the following table, which puts the matter in the most graphic form. He takes, it will be seen, the towns of Oldham, Nottingham, Manchester and Salford, Leicester, Leeds, Norwich, Portsmouth, and London. Against each town he sets the number of women of twenty years of age and upwards, specifying those who are engaged in textile

## FEMALES, TWENTY YEARS OF AGE AND UPWARDS, IN 1871.

TOWNS.	Females Enumerated, Twenty Years of Age and Upwards.	NUMBERS ENGAGED IN		TO EVERY 1,000 LIVING, THE PROPORTION EMPLOYED IN		INFANT MORTALITY— 1873-75.
		Textile Manufactures.	Household Duties.	Textile Work.	Household.	
Oldham .....	32,343	11,178	15,961	346	493	180
Nottingham .....	27,171	6,758	12,429	249	457	200
Manchester and Salford .....	150,019	22,750	81,245	152	542	188
Leicester.....	27,677	3,368	15,017	122	543	217
Leeds .....	72,719	6,776	47,873	93	658	201
Norwich .....	25,684	1,478	13,874	58	539	183
Portsmouth .....	31,504	.....	21,460	.....	681	146
London .....	1,022,419	.....	585,506	.....	573	159

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manufactures and those who are engaged in household duties, and the proportion these bear to the total number of women. Then he gives particulars of the infant mortality for the period 1873 to 1875. It comes out at once that in those towns where a large percentage of women are employed in the mills, an abnormal percentage of infants succumb. Thus in London, where half of the women are classified as being engaged in household duties, the death rate per thousand births is 159. In London we observe also that there is practically no textile labour at all. If we take Portsmouth, where two-thirds of the women are engaged at home, we find the death rate per one thousand births is 146. Leicester, on the other hand, shows a death rate of 217; Nottingham, 200; Oldham, 180; Manchester, 188; and Leeds, 201. It is quite true that a very large percentage of women in these places do not go to the mills, but note the number who do. In Oldham they are set down at 11,000; Nottingham, 6,000; Manchester and Salford, 22,000; and Leicester, 3,000. The inference is that the excess of mortality in these cases is simply due to the conditions of factory labour, which tend to reduce the health and vigour of the mother, and which necessitate the placing of the child in the care of strangers who cannot, even with the best of intentions, nourish and tend the factory nursery as a mother can her own children. Dr. Farr does not drop his inquiry here. He proceeds to classify the main causes of death amongst infants during these years, and in another table he divides these out amongst the group of textile towns and compares the results with the mortality and statistics of London, which serves as the basis for the non-textile towns. In the first column he shows the number of infants carried off during the years 1873-74-75 from eleven different causes, whilst in the second column is given the excess or deficit as shown by seven towns in which textile manufacture is the staple industry. A glance at the following table shows the terrible havoc played by diarrhoea, convulsions, atrophy, debility, and premature birth. Thus in London diarrhoea was represented by 20·4, in the factory districts by 31·9; convulsions in London by 18·5, in the factory towns by 27·4; in London, atrophy and debility by 20·5, in the factory districts by just double that figure, viz., 40·9. In London premature birth is 10·4, and in the factory towns 13·8. These figures refer to a period of twenty years ago, but unfortunately the evidence points to no improvement whatever—in fact, the state of things is worse rather than better to-day. The Registrar General, in his last annual report which gives the vital statistics of England for the year 1891, is so impressed by the state of things that he refers to the subject in even more detail than did Dr. Farr. He takes three towns—Leicester, Preston, and Blackburn—in which the rate of infant mortality has been sustained at an abnormal height

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through the whole decennium of 1881 to 1890, during which, in fact, these three towns had the highest infant death rate of all the towns included in the weekly returns. Then he takes another group of five mining and manufacturing counties, and a third group of rural counties. Starting from the basis of 100,000 births in each of these three groups during the years 1889-90-91, he compares the deaths, with their causes, of children under one year of age, and these are again sub-divided into periods of three months, six months, and twelve months.

\*CAUSES OF INFANT MORTALITY IN TOWNS IN THE THREE  
YEARS 1873-5.

CAUSES OF DEATH.	LONDON.	TEXTILE MANUFACTURING TOWNS.
	Death Rate per 1,000.	Excess or Deficit of London.
All causes.....	159.1	+ 34.9
The eleven subjoined causes .....	135.6	+ 31.9
Measles .....	3.1	+ 0.1
Scarlet Fever .....	1.1	+ 0.5
Whooping Cough .....	8.3	- 1.9
Teething .....	3.6	- 0.4
Diarrhœa .....	20.4	+ 11.5
Convulsions .....	18.5	+ 8.9
Lung Diseases.....	31.9	- 3.8
Tubercular Diseases .....	13.8	- 3.3
Atrophy and Debility.....	20.5	+ 20.4
Premature Birth.....	10.4	+ 3.4
Suffocation .....	4.0	- 3.5

\* In the above table the death rates from each of the eleven causes in these seven textile manufacturing towns in the aggregate are compared with those in London, and the results indicate in a striking manner that over and above a certain proportion of the mortality which may be attributable to indifferent sanitary arrangements, the causes most fatal to infant life in factory towns, and which are inseparable from bad nursing and feeding, are diarrhœa, convulsions, and atrophy. The mortality from premature birth was also in excess. Thus the respective death rates of infants in London and in the seven factory towns were—from diarrhœa, 20.4 and 31.9; from convulsions, 18.5 and 27.4; from atrophy, 20.5 and 40.9; from premature birth, 10.4 and 13.8 per thousand.

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In the table which follows he gives the general result :—

Age.	Of 100,000 born, the Numbers surviving at each Age.			Annual Death Rates per 1,000 living in each successive interval of Age.		
	Three Rural Counties.	Five Mining and Manu- facturing Counties.	Three Selected Towns.	Three Rural Counties.	Five Mining and Manu- facturing Counties.	Three Selected Towns.
At Birth..	100,000	100,000	100,000	213	331	382
3 Months.	94,820	92,051	90,874	75	154	240
6    ,,	93,068	88,574	85,574	61	128	180
12   ,,	90,283	83,081	78,197	..	..	..

It will be seen at once that whilst in the selected rural counties there are in round numbers 10,000 deaths of children under the age of one year, there are 22,000 deaths in the towns of Leicester, Preston, and Blackburn, whilst the mining and manufacturing districts lie between the two. I ought to mention that of the three agricultural counties, Hertfordshire, Wiltshire, and Dorsetshire, and the five mining counties of Staffordshire, Lancashire, Leicestershire, West Riding, and Durham, the latter comprise some of the selected textile towns as well as certain industries which are notoriously unhealthy and a big sprinkling of great towns where overcrowding and bad sanitary conditions exist, so that the health standard is by no means a high one. By means of another table, the results of which I will summarise, the Registrar ascertains that there are certain particulars in which the counties and the towns agree. Thus, the mortality is at its maximum in the first week, it falls enormously in the second week, remains at much the same level in the third week, and then shows a considerable decline in the fourth week, though even in the fourth week the mortality is very high. Passing from weeks to months, the mortality falls in the second month to a small fraction of its previous height, and then gradually continues until the seventh or eighth month, after which no noticeable change takes place through the remainder of the period, though there is a tendency to further decline. These points distinguish infantile mortality generally, and they are to be observed alike in rural and mixed industrial and factory districts. When we come to the points of difference we find that the manufacturing rate, besides being considerably more than double the rural rate, is higher for each fraction of the year with the exception of the fourth, fifth, and sixth days of the week after birth. Then again, and this is a most important point, the town rates are





## THREE SELECTED TOWNS.

CAUSES OF DEATH.	AGES BY WEEKS.				AGES BY MONTHS.												TOTAL.	
	1st.	2nd.	3rd.	4th.	1st.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.	9th.	10th.	11th.	12th.		
Premature Birth .....	1,508	247	161	130	2,054	158	25	19	8	6	6	..	..	..	..	..	3	2,279
Atelectasis .....	105	19	6	11	141	8	..	..	..	..	..	..	..	..	..	..	..	149
Congenital Malformations .....	78	48	36	11	175	20	14	8	8	3	3	..	3	..	..	..	..	234
Whooping Cough .....	..	..	6	6	12	49	33	61	39	69	86	53	88	61	69	74	694	
Measles .....	..	..	..	..	..	14	6	11	19	19	33	50	111	133	130	100	626	
Scarlet Fever .....	..	..	..	..	..	..	..	..	3	..	3	8	..	8	6	3	31	
Diarrheal Diseases .....	3	33	94	53	189	392	610	530	477	408	352	274	258	180	161	130	3,961	
Enteritis .....	..	3	6	8	22	58	72	61	47	36	58	30	44	25	11	33	497	
Erysipelas .....	..	6	17	..	23	3	..	8	..	11	6	6	8	6	3	..	43	
Syphilis .....	3	3	14	3	23	39	44	25	19	11	..	..	3	..	..	..	89	
Liver Disease .....	11	19	19	3	52	16	6	8	6	..	39	53	50	80	80	36	424	
Dentition .....	..	..	..	..	..	..	..	..	25	53	..	..	..	..	..	..	..	
Other Diseases of Digestive Organs .....	17	11	14	14	56	25	30	28	44	28	11	22	14	14	6	6	284	
Convulsions and Diseases of Nervous System .....	435	156	165	136	901	380	391	391	302	308	289	186	200	176	130	122	3,776	
Tubercular Meningitis .....	3	..	..	3	6	6	28	39	28	44	33	42	42	39	47	25	379	
Tabes Mesenterica .....	3	..	3	..	6	33	55	73	64	50	53	58	33	55	44	53	577	
Other Tubercular Diseases .....	..	3	..	..	3	17	33	25	25	39	22	11	25	19	25	17	261	
Atrophy ..	360	139	174	182	862	415	330	319	225	125	105	89	91	67	64	42	2,734	
Diseases of Respiratory Organs ..	25	42	72	50	189	362	288	277	333	305	323	319	327	318	314	346	3,701	
Injury at Birth .....	3	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	3	
Navel Hemorrhage .....	..	5	3	3	11	3	..	..	..	..	..	..	..	..	..	..	14	
Suffocation .....	17	3	14	3	42	53	39	33	25	25	6	3	..	6	..	..	232	
Other Violence .....	8	2	..	..	11	5	3	3	2	2	3	5	..	..	6	11	51	
All other Causes .....	67	34	28	30	166	74	42	42	50	50	44	14	17	33	14	28	574	
ALL CAUSES .....	2,646	773	832	646	4,947	2,130	2,049	1,967	1,749	1,584	1,475	1,226	1,317	1,220	1,110	1,029	21,803	

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most in excess of rural rates not in the earliest weeks or months of infancy, but in the later months. In the first week of life the Registrar points out that the town rate exceeds the rural rate by 23 per cent, in the second week by 64 per cent, in the third week by 83 per cent, and in the fourth week by 97 per cent, thus showing a progressive or accumulative increase in the deleterious effects of town conditions as compared with rural conditions upon infantile life. Taking months instead of weeks, in the first month the town mortality is 27 per cent above the rural rate, in the second month 121 per cent above it, and the excess goes on amounting up until the sixth month, when it stands at no less than 273 per cent. It is in this sixth month that the difference is greatest, though it remains throughout the rest of the year at not a very much lower point. But if we are to trace this wholesale sacrifice of life back to its causes we must know from what the child died. Accordingly, the Registrar has had the causes of death for the three years extracted in the case of the 100,000 rural infants and mill babies. The foregoing tables, which are the first of the kind ever prepared, are of such extreme importance that we append them in full.

The inference which must be drawn from Dr. Farr's tables is very clear. If we glance at the deaths ascribed to diarrhœa, premature birth, atrophy, and convulsions in the towns and the rural districts respectively, we find most appalling results. For instance, whilst 480 of the country children died from diarrhœa and disease during the three years, the Preston, Leicester, and Blackburn figures stand at 3,961. Convulsions, again, are represented by 1,381 in the country, and 3,776 in the towns. Atrophy was 1,738 in the country, and 2,734 in the towns. Premature birth stood at 1,381 in the country, and 2,279 in the towns. If we take enteric fever and diarrhœa together, we find that the mortality from these diseases is more than seven times as great in the towns as in the country. Again, measles and scarlet fever, which the Registrar General points out are spread by the close aggregation, are considerably more than three times as high in the towns as in the countries. Turning back for a moment to Dr. Farr's first table, we find that whereas Leicester then (which stood highest in his list of textile towns) was represented by a death rate of 217 per thousand births, the figures for the period nearly twenty years later for the three towns of Preston, Leicester, and Blackburn were represented by 218. This shows clearly enough that nothing has been done to check the evil. If we could assign the real causes to the deaths of these children, in how many cases should we have to put on the death certificate that the child died because the mother worked in the mill, because of improper feeding with the neglect which comes not through ignorance or carelessness but through the unnatural course of things

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which gives to a stranger the care of a child. The fearful number of deaths from diarrhoea is unquestionably due to this latter fact. Anyone who reads the weekly returns from the great towns must notice how in the hot months the death rate of the textile towns leaps up to something like double the normal figure, and closer inspection shows that this is very largely accounted for by the deaths of children from diarrhoea. In Leicester, which is known amongst medical officers and medical men as one of the diarrhoea towns, there is such a scare amongst the well-to-do people during the months of August and September that they leave the town and go away to the country or the seaside. But the Leicester well-to-do people need not be frightened; the children who die are the children of the poor and the children of mothers who go to work, and are consequently not brought up but let out to be cared for. The Registrar is somewhat guarded in his expressions on this point, though he is forced to admit that in the case of mortality from premature birth "part of the excess may be ascribed with much probability to the employment of young married women in the textile factories."

What one would like to know is, what the Local Government Board is going to do failing the action of the local sanitary authorities and the intervention of the law in the shape of the Factory Act. Are we to carry local government to such a pitch as to license these manufacturing towns to murder as many children annually as they please? And if infanticide is not to become a recognised British institution, what steps are we to take to put an end to it? The industrious compilation of statistics and scientific treatment of them will not lessen infant mortality, but it is for the administrators of the country and those who make its laws to take these statistics, to gather their bearing and to check the evil by the adoption of preventive regulations.

The influence of occupation upon life and health has not been studied to the same extent as other aspects of the public health question. For some reason or other it has scarcely claimed any attention on the part of medical men, whilst no body of public opinion to speak of has been formed on the question. Of course, there has been a strong feeling against the more obviously barbarous forms of labour which existed unchecked in the case of women and children before the Ashley *régime*. When the nation found out that children of five years of age were being sent down the mines, that women were crawling along on all-fours dragging after them corves of coal fastened to their bodies by chains, that the tender bodies of infants, who in well-to-do families would scarcely have been out of the nursery, were being tossed into the Lancashire mill and sucked dry of all their little strength, a fit of passionate indignation seized it,

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and in defiance of all economic teaching and the protests of the free-traders, Cobden, Bright, and Gladstone, laws were made limiting the hours of child and female labour, and the age at which certain occupations might be begun. It took years to work up this strong human feeling on the question, but when once it was brought home to the country and to Parliament only the most inveterately commercial-souled of men stood up for the abominations which were practised in the name of commerce. Unfortunately, the men of science were not called in as in the case of the Public Health Act. The administration of the Factory Acts, which embody our industrial hygienic code, was left in the hands of men totally unversed in the science of health. Parliament having drawn up certain regulations which were calculated to check unsanitary evils, left the rest to the administrators, and the administrators, in their turn, to Providence. The consequence is that to-day we have to buckle to again to fill up the gaps which have been left in our Factory Acts. We have to find out, in the first place, to what extent those Acts are simply a legislative framework or an administrative reality, and alongside of this inquiry we must pursue the same line of investigation in regard to the influence of occupation upon health as was pursued by Dr. Farr and Sir John Simon in their researches into urban mortality. There is no sort of doubt that the kind of work which men and women do has a close effect upon the health and vitality of those engaged. The shop assistant, who stands behind the counter for seventy or eighty hours a week; the clerk, who stoops over his desk for many hours a day; the tailor, who incessantly repeats the same motions with the same set of muscles; the cotton spinner, whose nerves are incessantly on the strain in the race with the swift machinery; the ironworker, who passes from the terrific glow of the great furnaces into the chill night air; the coal miner, screwed up into a space as small as a grave, hewing and picking at the coal; the blacksmith, working like a Titan; the chemical-worker, straining with his huge iron rake at the glowing mass inside the furnaces, breathing poisonous vapours instead of pure air; the potter, working all day in a room the hot and stuffy air of which is filled with minute particles of stone which tear and irritate his lungs as they are inhaled, plunging the ware into the vats of liquid poison which are to give the glaze of which Staffordshire is so proud; the cutler, cramped up in his wretched cabin in some Sheffield slum, bending over the wheel which grinds out a stream of deadly particles of iron and stone; the seamstress and the tailoress, stitching and stitching in the confined rooms where they sat when the "Song of the Shirt" rang in men's ears; the baker, stewed in an underground den; the arsenic and whitelead worker; the japanner and brassworker. These and the great category of textile workers who follow the swift

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machinery, and breathe the close unwholesome air of the mill with its deadly mixture of fibrous dust, have all of them their special stories to tell, if only they knew how, of the effects of their industry upon their health.

But the worker as a rule is not in a position to tell the story. He does not trace the effect back to its cause. The Sheffield cutler who is dying from consumption will tell you that on such and such a day he got a cough, which has steadily got worse. The mill girl in Belfast, who lives on a diet of bread and tea, and works all day long in a moist and tropical atmosphere, finds her strength giving way; she, too, has a cough, but she does not know why. The doctor tells her presently that she is in a consumption, and she and her friends suppose that the end is coming in the appointed way. So, too, with many other classes of workers. Habit is second nature, and the habits and surroundings of their lives are accepted unquestioningly, and when health breaks down they attribute it to natural causes. Now, there are two main divisions into which these industrial diseases may be classified. Certain of the workers enumerated above suffer from the conditions which surround their work, such as closeness of atmosphere, excessive heat, and alternations of heat and cold. Others suffer from immediate contact with their work—for instance, the whitelead workers, arsenic workers, and chemical men, and with these we may include those who suffer from the extreme intensity of toil, like blacksmiths, who reach the high-water mark of vitality at the age of eighteen. We must, therefore, keep in mind the environment of the workers, the amount of space, light, fresh air, &c., allotted to them, and the particular nature of their work itself—for instance, the poisonous properties of materials, the offensive and injurious matters given off during the process of manufacture, and which assume various forms of poison, dust, and vapour.

Taking the surroundings of the workers first, there is no need to spend time in insisting upon the vital importance of a proper supply of fresh air, yet for lack of realising all that this means we are paying a terrible death and disease tax every year. You cannot batten up so many men and women in a workshop or factory day after day and week after week with an insufficient amount of pure air and expect them to keep up a healthy standard of life. The thing is a physical impossibility. Just as the human organism revolts against being expected to assimilate impure water or putrid food, so does it protest against being expected to keep up the natural chemistry of life upon poisonous air. I may here, by way of illustration, give the effects of pure and impure air upon the health of the troops. The Sanitary Commission which inquired into the health conditions of the army, and which was appointed through the instrumentality of Miss Florence Nightingale, brought out the fact

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that whilst in civil life (as illustrated by the population of twenty-four large towns) the deaths from pulmonary diseases at the soldiers' ages were 6·3 per 1,000, they amounted in the cavalry to 7·3, in the infantry of the line 10·12, in the guards 13·8 per 1,000; and of the entire number of deaths from all causes in the army, diseases of the lungs were responsible in the cavalry for 53·9 per cent, in the infantry of the line 57·277 per cent, and in the guards 67·683 per cent. Now in the army the soldiers are on the whole well fed and well clothed. Whence, then, this excessive mortality from pulmonary diseases? The commissioners say:—

They are to be traced in a great degree to the vitiated atmosphere generated by overcrowding and defective ventilation and the absence of proper sewerage in barracks. This one cause acting with such intensity, especially when superadded to a certain amount of exposure, has not only produced in the foot guards an amount of disease in question which is greater than is produced in civil life by all the four causes united, but which actually carries off annually a number of men in the infantry equalling, and in the guards actually exceeding, the number of civilians of the same age who die of all causes put together.

Sir John Simon, the late Medical Officer of Health to the Privy Council, in a retrospective article on his work, remarks:—

We had shown that death and disease in very large quantities were accruing from removable causes which attached to certain branches, and in general most extensive branches, of national industry, so that certain large district populations had, so to speak, their epidemic diseases almost as marsh populations have ague; that in several of these the workers were suffering from tubercular phthisis in terrible amount through the over-crowdedness and unventilatedness of the spaces allotted to work; that in several others the workers were suffering not less terribly from non-tubercular (viritaline) disease of the lungs because of the absence of reasonable care to remove from the industrial atmosphere the dust and other vitiating matter which the industry tended to diffuse in it.

It will be noticed that Sir John Simon divides phthisis into two classes, the one being due mainly to bad air and exposure, and the other to the admission into the respiratory passages of irritating substances. In the following table, which is drawn up by Dr. Ogle, of the Registrar's department, from the figures supplied in the census of 1881, a graphic presentation is afforded of all the ravages of phthisis and respiratory diseases amongst certain classes of trades.

It is impossible to separate the two classes here. In many cases—for instance, in that of earthenware manufacture—no doubt the operatives die largely from both causes, and this would be true in the case of cotton manufacture. With cutlers, on the other hand, a greater proportion of deaths would be due to the irritant nature of the metallic particles inhaled. Look, however, at the fisherman, who, in spite of constant exposure to all sorts of weather and temperatures, is infinitely less the victim to pulmonary complaints than any of the indoor workers. Where 198 fishermen die from

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Occupation.	Phthisis.	Diseases of Respiratory Organs.	Phthisis and Diseases of the Respiratory Organs..
Coal Miner .....	126	202	328
Carpenter, Joiner .....	204	133	337
Baker, Confectioner .....	212	186	398
Mason, Builder, Bricklayer .....	252	201	453
Wool Manufacturer .....	257	205	462
Cotton Manufacturer.....	272	271	543
Quarryman .....	308	274	582
Cutler .....	371	389	760
File Maker .....	433	350	783
Earthenware Manufacturer .....	473	645	1,118
Cornish Miner .....	690	458	1,148
Fisherman .....	108	90	198

these diseases, the table shows that 1,148 Cornish miners, 1,118 earthenware operatives, and 543 cotton operatives die. We must refer to this table again later on when we come to consider the diseases of occupation more in detail.

Before we go any further it may be as well to point out where the law stands in regard to these matters. So far as the structure of workshops and factories is concerned there are no regulations whatever. It is only after the place is built and the plant laid down that the law steps in and says, adequate provision must be made for ventilation and for cleansing the air of all the impurities generated in the course of manufacture. Without deprecating in any way those regulations which the Factory Act is supposed to enforce, common sense suggests that it would be better for the State to step in before instead of after the factory is built. Of course, what happens is that the architect, the manufacturer, and the engineer do not trouble their heads about anything except the strictly manufacturing purposes to which the mill, factory, or workshop is to be put; and in a large proportion of cases the factory inspector, who knows absolutely nothing about the science or practice of ventilation himself, is powerless to suggest a way by which the place may be fitted for human beings whose lungs are constructed in the ordinary way. Theoretically, the Act gives powers to enforce a sufficient supply of space and pure air to everyone; in practice, the theory utterly breaks down. I have looked through the list of convictions under the Factory Act for the last few years and can find no single case in which proceedings have been taken against a manufacturer for the infringement of the Act in respect to space or



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ventilation. The factory inspectors must not be blamed too severely for their inaction in the matter, because they do not pretend to be qualified for the extremely difficult duties in respect of health supervision which are laid upon them, but it reflects little credit upon the authorities at the Home Office that for many years past they have been pretending to administer the Act, which, so far as its hygienic features are concerned, there are no proper means of carrying out. We do not appoint retired naval captains or army officers as medical officers of health, and yet we expect gentlemen drawn from varied and promiscuous walks of life to discharge duties of a very similar nature in connection with factories and workshops. This is a piece of administrative neglect which has probably cost more lives than all the wars in which England has been engaged during the past half century. Either we should abandon the pretence of securing healthy conditions for the operatives, or proper steps should be taken, first to lay down a standard of what is necessary, and secondly to appoint properly qualified officers to see that this is kept to, and those who break the law should be treated with at least as much severity as vendors of rotten fish or putrid meat. It is only another instance of the sheer levity with which the interests of life and health, as compared with the interests of property, are treated by the Government and Civil Service, which is mainly drawn from the ranks of those who do not realise the facts of the workman's life, and whose own health is subject to a different set of conditions altogether from those which have so powerful a bearing upon industrial mortality.

The mass of working men and women are still living and working under conditions which are the same as Dickens described in his wonderful sketch of Coketown:—

Coketown was a town of red brick, or of brick that would have been red if the smoke and ashes had allowed it; but as matters stood it was a town of unnatural red and black, like the painted face of a savage. It was a town of machinery and tall chimneys, out of which interminable serpents of smoke trailed themselves for ever and ever and never got uncoiled. It had a black canal in it, and a river that ran purple with ill-smelling dye, and vast piles of buildings full of windows where there was a rattling and a trembling all day long, and where the piston of the steam engine worked monotonously up and down like the head of an elephant in a state of melancholy madness. It contained several large streets all very like one another, inhabited by people equally like one another, who all went in and out at the same hours, with the same sound upon the same pavements, to do the same work, and to whom every day was the same as yesterday and to-morrow, and every year the counterpart of the last and the next. These attributes of Coketown were in the main inseparable from the work by which it was sustained. . . . You saw nothing in Coketown but what was severely workful. If the members of a religious persuasion built a chapel there, as the members of eighteen religious persuasions had done, they made it a pious warehouse of red brick, with sometimes (but this is only in highly-ornamented examples) a bell in a birdcage at the top of it. . . . All the public inscriptions in the town were painted alike, in severe characters of black and white.

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The jail might have been the infirmary, the infirmary might have been the jail; the town hall might have been either, or both, or anything else for anything that appeared to the contrary in the graces of their construction. Fact, fact, fact, everywhere in the material aspect of the town; fact, fact, fact, everywhere in the immaterial. The McChoakumchild school was all fact, and the school of design was all fact, and the relations between master and man were all fact, and everything was fact between the lying-in hospital and the cemetery, and what you couldn't state in figures or show to be purchasable in the cheapest market and saleable in the dearest was not, and never should be, world without end, Amen.

We have glanced already at the impression which these streets of Coketown leave upon their inhabitants. Let us now see what sort of human fabric is being spun and combed out in these throbbing mills, what pattern of flesh and blood the decorative and ornamental arts, as we are carrying them out, is tracing, how fire and vapour fulfil the word of the manufacturer upon men as well as metals. Take that district of Coketown known as Sheffield. Everyone is proud of Sheffield, and its manufactures boast that wherever the British flag flies there is Sheffield trade; and when it flies for war, Sheffield steel is not far off. It has a school of protection of its own for Sheffield goods, so keen is the pride it takes in its cutlery. But what a life the Sheffield workman lives who earns his bread at the grindstone! Here is what the Medical Officer for Sheffield says about the place where these men live and work:—

Houses of the poorest description, with damp walls and cellars, in many instances standing several inches deep in water, contaminated with sewage and giving out foul gases into the rooms above; courts confined and occupied by large, sodden privy-middens so near to the dwellings that ventilation becomes impossible and absolutely dangerous; sink pipes discharging in the channels, usually defective, and allowing the slops to form stagnating pools before reaching the gullies which are situated often fifty yards away; or, what is worse, permitting of percolation into the soil of the yard. All these conditions exist in many parts of the district, and no doubt are largely accountable for the high death rate. At present almost every available foot of ground is occupied, if not by houses by privies, stables, or outhouses; the air is stagnant and the ground polluted with sewage and decomposing matter.

Hundreds of these wretched jerry-built slum houses have been turned into workshops in which the grinders and cutlers stoop over their wheels. Somewhere in the court a gas engine is working, and a network of bands are connected with the wheels which whiz around in every dark hole and corner that they can be squeezed into. You go up rickety ladders into lofts, where the boards are worn and covered with an ancient grime of steel and stone particles of file dust and filth. Here you will find women finishing off the men's work. Very likely the water comes through the roof when it rains and lays the dust. The grinders and cutlers rent these places. They enjoy the privilege of freedom, which, in this case, is one of the strangest and most ghastly privileges men could claim. They have their own wheels and their own tools. They pay so much rent for the place,

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so much rent for the gas, and so much rent for the power; meanwhile, the manufacturer, so called, sits in his warehouse or office giving out steel in the rough, first to the forger who passes it to the grinder, and so on to the polisher and finisher until the round is completed and the finished stuff comes back into the other door "warranted best Sheffield cutlery." The trade is a highly skilled one, and the work is extremely hard. The wages run from 16s. for light grinders, to 25s. for heavy grinders. The wages of Sheffield are literally death. The lungs of the cutler and grinder get charged in the course of time with the metallic particles given off during their work, and they contract that form of phthisis locally known as "grinder's rot." These particles, owing to their mineral constitution and sharp jagged outline, are peculiarly harmful, and at last the lungs can stand it no longer and cease work.

The following tables are extracted from the reports of the Medical Officers of Health:—

1888.	
Grinders died from all causes.....	99
Grinders died from phthisis and respiratory diseases .....	58
Cutlers died from all causes .....	156
Cutlers died from phthisis and respiratory diseases .....	73
1889.	
Grinders died from all causes.....	101
Grinders died from phthisis and respiratory diseases .....	64
Cutlers died from all causes .....	130
Cutlers died from phthisis and respiratory diseases .....	59
1890.	
Grinders died from all causes.....	131
Grinders died from phthisis and respiratory diseases .....	92
Cutlers died from all causes .....	171
Cutlers died from phthisis and respiratory diseases .....	98
1891.	
Grinders died from all causes.....	121
Grinders died from phthisis and respiratory diseases .....	87
Cutlers died from all causes .....	147
Cutlers died from phthisis and respiratory diseases .....	77

If the 131 grinders who died in the year 1890 had shown the average health conditions of the country, not 92 but 27 ought to have died from phthisis and respiratory diseases. The figures show how terribly large is the proportion of these diseases to the total number of deaths, and yet Dr. Littlejohn, the Medical Officer of Health, asserts that they fall far short of the actual facts, as many workmen at the cutlery trade when their health begins to fail go into some lighter occupation under which their deaths are registered.

In the Potteries people are dying or living only half-animated lives from much the same causes as in Sheffield. The string of towns, Longton, Fenton, Stoke, Hanley, Cobridge, Burslem, and

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Tunstall, are all so many sigments and repetitions of the "Coketown" of "hard times." The same pall of smoke hovers over them and penetrates the air which people breathe, and smears the red brick till it turns black. The amount of unconsumed smoke that settles in the form of soot every day in the Potteries is something depressing to think of. The manufacturers throw the waste and rubbish, which amounts to tens of thousands of tons in the course of a year, out into the country around and down in the valleys, so that the Potteries seem to be getting embedded in a wilderness of scavengings. Then there are the great heaps of slack from the collieries, and the multifarious accumulations from ironworks and other manufactories, which spread desolation over the country and makes such feeble greenery as can survive against the smoke look like a mockery to nature. "Potter's rot," which carries off the people in these parts, is closely akin to the Sheffield "grinder's rot." Doctors call it phthisis or consumption, but it has nothing to do with the tubercular form of that disease, though it may exist in connection with it or awaken the germs when the sufferer is predisposed to tubercular trouble. The fibroid phthisis, which is the scientific name, signifies that potters are stricken down by the work by which they earn their livelihood, because of the fearful quantity of dust generated in the manufacture to which they are exposed. This dust is of a most insidious kind. Walking through the rooms where the men and women are at work you may not notice it, but when you come out you find your clothes are covered with a sprinkling of white powder. The air gets charged with this, and not only is it given off by the swift rotating ware as it comes into contact with the finishing tool or the sand paper, but the moist clay, which gets broken off into fragments and falls about the workshop, dries into powder, which the vibrations of the floor caused by the jolting and thumping of machinery, and the movements to and fro, tend to keep in suspension. Here again, as in Sheffield, the dust is a mineral one. There are particles of stone and bone in the composition, and worst of all, a flint which is broken up into the most vicious tearing atoms. Nearly everyone engaged in the potters' shops get their share of dust, though those who work with lathe, jigger, or jolly, as the whirling stands are called on which the ware is shaped, get the biggest share of it. The reader will readily understand that when a sharp tool is held to earthenware that has been already baked, a fine spurt of dust must be the result. Multiply this spurt by a few dozen or a few score, and you have the process which is continually going on. In some instances manufacturers have put up ventilating fans which carry off a considerable percentage of the dust. In many there are no arrangements whatever of the kind. The women who suffer most are the towers and the china scourers. The tower's business is to

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put a finishing on the surface of the ware by means of sand paper or some other rough surface, and she sits all day long stooping over a small cyclone of dust. Where proper fans are not installed she is doomed. So, too, is the china scourer, who brushes the particles of flint from the ware when it comes from the saggars, or great earthen vessels, in which there has been packed a bedding of flint dust. There is scarcely a china manufactory in the Potteries which has made any provision whatever for carrying away this terrible flint dust. The women's faces and hair are frequently white with it, and in the majority of cases they are only able to work for a few years before they utterly break down with the "potter's rot."

A glance at Dr. Ogle's table some pages back, showing the deaths from phthisis and respiratory diseases in various trades, will show the reader the position of the potters in this ominous category. There may have been some slight improvement since these figures were taken out, but not much. Dr. Ogle's figures show that in Hull there was a higher mortality figure for the decennium ending 1881 than for that ending in 1871. Since then, however, a good many manufacturers have introduced better ventilating arrangements. Dr. Arlidge, who has spent a great part of his life in the Potteries, where he has held the post of Certifying Surgeon and of Physician to the North Staffordshire Infirmary, has collected statistics which show how much more severely the dangers of dust and poisoning are felt in some departments of the work than they are in others. He finds that the pressers who have been treated in the infirmary show an appallingly heavy proportion of pulmonary disorders. Out of 263 pressers, bronchitis was present in 55.5 and phthisis in 17.8. In other departments the figures were bad enough, but not so terrible as these. It is a well-known fact that many of the children in the Potteries whose mothers are engaged in the factories are born with a predisposition to lung troubles, whilst the rate of infant mortality is excessively high. Lead poisoning is present in this trade in a much larger degree than is generally known, for the raw whitelead is used in very large quantities to produce a glaze upon the earthenware and china. It is impossible for the workpeople to come into contact with this lead either in the liquid form in which it is spread upon the ware or in its dry and powdery state without suffering from it, though there are a few exceptional cases, where the constitution appears to get seasoned to what is in fact a most deadly poison. Every year at the North Staffordshire Infirmary a large number of cases of lead poisoning are treated, whilst if you move about amongst the people, or extend your explorations to the Stoke workhouse, you find a pitiable number of cases in which chronic paralysis has been the outcome of contact with the lead. I have seen young girls in the Potteries ruined for life from this cause.

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Cases of lead colic are also plentiful, and when once this hideous and agonising disorder has made itself felt it is pretty certain to recur at longer or shorter intervals whilst the victim remains at the occupation. The third form of lead poisoning is that in which the poison touches the brain, and the sufferer dies in a series of convulsions. Such cases occur every year in the Potteries. There, as in other trades where lead poisoning exists, the sufferers are mostly young women. Dr. Arlidge notes that out of 60 persons employed in the dipping house (that is the department where the ware is dipped into the great vats of liquid glaze) who applied for medical advice, 47 suffered from colic or paralysis, or both, or arthralgia. Women employed in decorating the ware also suffer terribly from lead poisoning. The paint dries on their hands, on their clothes, or in their hair; and in the rougher department, being used in large quantities, the risk of inhalation and absorption in the skin or from swallowing with food is, in spite of every precaution on the part of the workpeople, very grave. The most wanton decorative method that probably exists is that known as "ground laying." The women dust the colour, which is mixed with lead, on the surface of the ware, so that they work in an atmosphere of lead particles. Sometimes when there is a rush of business in this class of ornamentation the women succumb to its effects as they would if they had drank strychnine. A poor creature who had been an inmate of the infirmary at Stoke workhouse for twelve years told me that she had been "done for" by this "ground laying" in just such a rush of orders, whilst the two women alongside of whom she was working both died.

It is a matter for hearty congratulation that co-operators, through the Co-operative Wholesale Society, have set their face against the use of raw lead as a glaze. In common with almost every other of the deadly features of industry, it is absolutely unnecessary. There are methods of preparing glaze without any lead at all, and the more human and scientific of the manufacturers in the Potteries are now "fritting" their lead—that is to say, it goes into the furnaces with the rest of the constituents of the glaze, where it is chemically transformed from the carbonate, which is soluble in the human system, to a silicate, which is practically insoluble. Let us mention that world-renowned houses have during the last few months used nothing but lead "frit," and they pronounce themselves more than satisfied with the result. Mr. Campbell, the great tile manufacturer, has for the past two or three years "fritted" all his lead, with the result that not a single case of lead poisoning has occurred amongst his workpeople. Mr. Rhodes, the buyer of the Co-operative Wholesale Society, has taken up this question warmly, and with the co-operation of the firms who do business with the Wholesale

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and who have entered into his ideas with the utmost heartiness and cordiality, he can see his way to supply co-operators with goods which have not left the trail of deadly disease and horrible death behind them. The Home Secretary has also during the past year appointed a Departmental Committee to go into the whole question of the effect of the industry upon the health of the operatives. Before this appears in print their report will be published. On this committee, besides three factory inspectors, have sat Dr. Arlidge and Dr. Spanton, who are both intimately acquainted with the health of the workpeople, and Mr. A. P. Laurie, a Fellow of King's College, Cambridge, who is an expert both on whitelead and the action of dusts. It seems not unreasonable to hope that whilst the special rules, which the Home Secretary will issue on the recommendation of this committee, may not at once put a stop to the use of raw lead, they will, at any rate, make it easier for the manufacturers who are willing to go out of the beaten and in this case inhuman track, and that regulations which will result in vastly improving the ventilation and a reduction of the excessively hot atmosphere will be enforced. There is no sort of doubt that if this is the case the potters' trade will be revolutionised, and instead of the occupation being nearly the unhealthiest in the country it will become one of the healthiest, for it is a light occupation and by no means an unpleasant one.

For sheer unadulterated brutality and recklessness in the use of lead I know nothing to beat the case of the manufacturers of enamelled sheet iron advertisements which have been coming much into fashion during the last year or two. This is practically a new trade, and it is carried on almost entirely in the black country, women's labour of the cheapest kind being employed upon it. From careful inquiries I have made on the spot, there is no doubt whatever that the conditions of this industry are such that every woman employed upon it suffers in a greater or less degree from the horrors of lead poisoning. The poor girls work in a cloud of dry paint as they stand all day long dusting the colour from the lettering in the stencil plates. Means of ventilation for carrying it off there are none. In the same workshop with them the furnaces are roaring where the enamelling process is carried on. The employers like to get their labour from the little town of Sedgley, which stands several hundred feet above the sea, overlooking the smoke of Wolverhampton, Dudley, Bilston, and the other towns of the black country, for the air of Sedgley is so fine and bracing that the women are enabled to shake off the effects of the lead much faster than anywhere else in the district. Sedgley serves the economical purpose, therefore, of a convalescent home for the lead poisoned, whilst its distance from the scene of work tends to allay ugly questions being

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asked by the ratepayers who have to pay for the medical attendance of these women. The poor-law doctor tells me that he never is free from cases, and that there is no woman employed at the work who does not show on her gums a little blue line, which signifies the presence of lead in the system. Only a week before my visit a girl had died in this convalescent home from lead convulsions after a few hours' illness, and there were others whom I saw who were suffering from more or less severe attacks of this form of advertising murder. Unless drastic measures are taken promptly every girl in the trade will be ruined for life, to say nothing of those who are being mercifully sent to the grave. Last year at the Wolverhampton Infirmary alone there were close upon one hundred cases of lead poisoning treated, a far larger number probably than at any other infirmary in the country, and yet there are considerably under a thousand women employed in the industry altogether. Such an industry as this is no doubt abnormal, but it shows the danger of allowing the manufacturers to take the law into their own hands. Here again the Home Secretary, on having the facts brought to his notice, has promptly intervened, and referred the case to the consideration of another departmental committee which is dealing with the whitelead trade.

In the manufacture of whitelead itself there are probably not more than 5,000 or 6,000 people employed in this country, but the comparatively small amount of labour does not make the work any easier or safer for those who are engaged in it. The work in the whitelead works is hard, and in many respects brutal and terribly dangerous. Women's labour is for the most part employed, and women are far more subject to the effects of lead than men. The whole question of its effects has been studied by medical experts, and Dr. Oliver, of Newcastle, says, unhesitatingly, that the ravages wrought by whitelead fall far more disastrously upon women than upon men. The chief centres of the trade are Newcastle-on-Tyne and the East of London. Charles Dickens, whom nothing seemed to escape, describes in the "Uncommercial Traveller" a visit paid to the whitelead works in Limehouse. His description is highly picturesque :—

Hopping up ladders, and across planks, and on elevated perches, until I was uncertain whether to liken myself to a bird or a bricklayer, I became conscious of standing on nothing particular, looking down into one of a series of large cocklofts, with the outer day peeping in through the chinks in the tiled roof above. A number of women were ascending to and descending from this cockloft, each carrying on the upward journey a pot of prepared lead and acid for deposition under the smoking tan. When one layer of pots was completely filled, it was carefully covered in with planks, and these were carefully covered with tan again, and then another layer of pots was began above, sufficient means of ventilation being preserved through wooden tubes. Going down into the cockloft then filling, I found the heat of the tan to be surprisingly great, also the odour of the lead and



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the acid to be not absolutely exquisite, though I believe not noxious at that stage. In other cocklofts, where the pots were being exhumed, the heat of the steaming tan was much greater, and the smell was penetrating and peculiar. There were cocklofts in all stages; full and empty, half filled and half emptied; strong, active women were clambering about them busily; and the whole thing had rather the air of the upper part of the house of some immensely rich old Turk, whose faithful seraglio were hiding his money because the sultan or the pasha was coming.

Dickens takes a cheerful view of this work, but the girls whom I saw doing it at Newcastle looked neither strong nor active, as they walked wearily backwards and forwards with loads of lead on their heads, or climbing high ladders, as he describes, balancing on their heads great planks, or loads of tan or of lead that was to be carbonated. Personally, I doubt if there is any other country in western Europe where women would be allowed to do such work. All this fetching and carrying and lifting could be done by machinery, but because women's labour happens to be cheaper, and they will submit to do the work of hoists and trucks, the thing goes on. But the more dangerous part of the work comes when the stack is uncovered after many weeks of chemical action, and the women mount once more to what is known as the "white bed," in contradistinction to the "blue bed." The lead gets in under their finger nails, and about their hands and arms, and over their clothes, as they pull it up from its bedding and remove it to the mill.

At last (continues Dickens) this vexed whitelead, having been buried and resuscitated, and heated and cooled and stirred, and separated and washed and ground, and rolled and pressed, is subjected to the action of intense fiery heat. A row of women stood, let us say, in a large stone bakehouse, passing in the baking dishes as they were given out by the cooks, from hand to hand, into the ovens. The oven, or stove, cold as yet, looked as high as an ordinary house, and was full of men and women on temporary footholds, briskly passing up and stowing away the dishes. The door of another oven, or stove, about to be cooled and emptied, was opened from above for the uncommercial countenance to peer down into. The uncommercial countenance withdrew itself with expedition and a sense of suffocation from the dull glowing heat and the overpowering smell. On the whole, perhaps, the going into these stoves to work when they are freshly opened may be the worst part of the occupation.

It is indeed a strange and uncanny sight to see these pale women, with red handkerchiefs bound tightly over their hair, enveloped in a sack-like overall, passing the pans of wet poison up and up into the great stove. But it is when the lead is dried and it has to be removed in a state of powder that the worst time comes. It is desperately hard work, for the stove is cleared at high pressure, and it has to be done with a muffler placed over the mouth, a thing which is no sort of use in keeping the lead out. Frequently the women work in their bare feet. By the time they have done both their outer and under clothes are covered with the lead dust, and the pores of their skin being opened by the desperate exertion, the lead has

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every opportunity of finding its way into their system. In 1883 Sir William Harcourt, who was then at the Home Office, drew up certain regulations for the protection of the workers. These consisted of the provision of baths and nail brushes, and acid drinks for the purpose of turning the lead carbonate after it has been swallowed into a sulphate, and the like. It was a well-meant measure, but it would have been wiser and kinder to have recognised at once the necessity of enforcing some different method of manufacture, or the substitution of machinery for women's labour. The nail brush policy has done something, but it has not stopped lead poisoning, either in its more gradual or sudden forms; nor has it availed to check the deaths of children whose mothers work in the lead mills, the great majority of whom die within a few weeks or months of birth in convulsions.

During the last five years 145 cases have been treated at the Newcastle Infirmary, and a large number at the Newcastle Union, whilst the Gateshead Union had 13 cases on their hands in 1892. At Poplar 28 cases were treated during 1892, as compared with 30 ten years ago. Shoreditch and Holborn both show an improvement, the former having treated seven cases in 1892, and the latter 13 in 1891 and 1892. I have looked through the register at the London Hospital, where a number of cases have been treated, but as the occupation of the patient is not described, how many cases are whitelead workers I cannot say.

But after all it is not a question of statistics. If there is a single case of unnecessary suffering, a single case of wrecked health or premature death, the blame lies on the community which allows human beings to be tortured and killed for the purpose of gain. Vivisection is at least practised for the sake of relieving the sufferings of humanity, but the unspeakable agonies, the symptoms of which are too horrible for description, are inflicted with no high end whatever in view, but the merely vulgar one of making money out of cheap labour. It reflects little credit on those who administer our laws that these wanton actions should have been permitted so long. As for the manufacturers, they are part of a system which works on the assumption that life is cheap, that the cheaper it can be got in the shape of labour the more there is to be made out of it, and so long as there is abundance of labour it will sell itself on their terms. What is there to trouble about? It is a free country, and labourers need not hire themselves unless they like. But it is precisely on behalf of these citizens, whose necessity forms the opportunity of the manufacturer, that the law must intervene unless every pretence of protecting human life is to be abandoned by the State. It remains to be seen what recommendations the Departmental Committee of the Home Office will make on this question. They have spared no

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pains, and their inquiries have carried them to every whitelead works in the country, and the presence of Dr. Oliver on the committee, who holds that women should be forbidden to work at this trade, entitles one to hope that the recommendations will not be merely of a perfunctory character. During the present year both France and Germany have issued drastic regulations on this matter, and in Germany the women are now forbidden to work in contact with the lead at all.

In the alkali works we come across an entirely different class of labour. With the exception of the men employed in the construction of public works, there is probably no finer set of workmen to be found in the country than those in the employment of the great corporation known as the United Alkali Company. This company has acquired nearly all the chemical works in the country, and it employs something like 20,000 men. The conditions under which these men work have been so fully brought before the public of late in the Press and before the Labour Commission, that it is unnecessary to deal with their case at length. A distinctive feature about the trade is that it wears out the workmen prematurely because of the intensity of the toil, the alternations of heat and chill, and most of all the exposure to noxious vapours. The traveller who passes through Widnes, even in an express train, draws up the window to keep out the choking sulphurous fumes. These centres of the chemical industry are in truth "hell-holes" for those who have to live and work in them. Taking one week with another, most of the men do their twelve hours a day in the works, and taking one man with another their life is over by the time they are 47.\* The gases and vapours which do the mischief bring on bronchitis, and in the winter time the hospitals and workhouses are full of patients from the chemical works. The men who work on what is called "salt-cake" have their teeth rotted away in the course of time by the hydrochloric acid gas; others suffer from contact with vitriol; others again do their work in air which is filled with stinging caustic; the men in the "lime-house" constantly get burned by the action of the perspiration of the lime particles which settle on their bodies; and worst of all, bleaching powder men suffer daily semi-suffocation and bodily torture of a dreadful kind in the chlorine chambers which they enter with their mouths swathed with a huge protuberance of flannel. Nothing could be more barbarous and crude than the labour conditions in these works. The United Alkali Company have over and over again been taxed with it, but they reply that the men are well paid, as if, forsooth,

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\* I make this statement on the authority of the medical officer of health for St. Helens, who has kindly supplied me with the figures.

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that had anything to do with it, and that they are a fine, strong body of men, as if men who were anything else could stand the terrific strain imposed upon them. But a visit to the infirmaries and the workhouses, where the wrecks of the chemical men are laid for the ratepayers and the charitably disposed to look after, disposes of the high professions of the great syndicate. There were ninety-nine chemical workers in the Whiston workhouse when I visited it. The life had all been worked out of them, and there was darkness and vacancy in the disused human workings. Happily this is another of the trades which Mr. Asquith has scheduled as dangerous, and a committee of experts and factory inspectors is engaged in drawing up regulations for the protection of the workmen.

We have now passed rapidly in review certain typical occupations in which poisons and mineral dusts and vapours cut short the lives and injure the health of the workers. There remains the category in which havoc is wrought by the inhalation of vegetable particles. In many of the departments of the textile industry the workpeople suffer, and suffer severely, from the particles of dust given off, and whilst they are not to be compared with mineral dust in their destructiveness, yet a great deal of phthisis and pulmonary disorders is the experience by the operatives in these trades. And here, as in many other industries, troubles do not come singly. The atmosphere of the mills and factories is close and hot, and frequently excessively humid. In the cotton-weaving sheds regulations have now been adopted at the instance of the operatives, and the Cotton Cloth Act limits the amount of heat and humidity. But a beginning has scarcely been made in introducing really healthy conditions into this great staple industry. In Belfast, which is the centre of the linen trade, and where at least 30,000 girls and women are engaged in linen weaving, spinning, and finishing, the rate of mortality from phthisis and respiratory diseases is quite appallingly high. The wet weaving and spinning which are carried on are most deadly in their effects, as the women and children work in an atmosphere of steam all day. In the preparing department, in which men are also engaged, the flax dust, which is highly irritant in its effects, is constantly present in large quantities. The people who are doomed to this labour are so poorly paid that they are unable to feed or clothe themselves properly. The women live for the most part on a diet of tea and bread, never really tasting meat or procuring really nourishing food. The strain and exhaustion and the insanitary conditions of their labour are such that the greater number of the mill girls die at the age of 18 than at any other age. The following table, which has been prepared from the records of the Belfast Union for the year 1891, shows more clearly than any words can do the death tax which the linen industry is paying :—

AGE.	CAUSES OF DEATH.				OTHER CAUSES.	
	Phthisis.		Respiratory Diseases.			
	Male.	Female.	Male.	Female.	Male.	Female.
10 ....	..	..	..	..	..	..
11 ....	..	..	..	..	..	1
12 ....	..	1	..	..	..	..
13 ....	..	..	..	..	..	..
14 ....	..	5	..	1	..	1
15 ....	1	7	..	..	2	1
16 ....	3	14	2	1	1	5
17 ....	1	13	..	..	1	6
18 ....	3	17	..	3	..	4
19 ....	..	17	..	..	1	6
20 ....	2	11	..	1	..	7
21 ....	2	14	..	1	1	5
22 ....	..	9	..	1	..	8
23 ....	1	5	..	..	..	2
24 ....	2	12	1	1	..	4
25 ....	2	6	1	1	..	..
26 ....	..	7	..	2	1	2
27 ....	1	9	..	..	..	3
28 ....	..	5	..	2	..	1
29 ....	..	10	..	2	..	2
30 ....	1	5	..	4	..	6
31 ....	..	6	..	2	..	3
32 ....	..	4	..	..	3	3
33 ....	..	3	..	1	1	2
34 ....	..	4	..	3	..	3
35 ....	..	6	..	..	..	2
36 ....	..	..	1	1	..	1
37 ....	3	5	..	2	1	3
38 ....	..	2	2	1	..	2
39 ....	1	1	2	1	2	..
40 ....	1	4	1	1	..	5
41 ....	2	..	1	1	..	1
42 ....	..	2	..	4	..	1
43 ....	..	1	1	2	..	1
44 ....	..	1	1	1	1	3
45 ....	2	..	..	2	1	4
46 ....	..	1	2	2	1	..
47 ....	1	1	2	..	1	2
48 ....	1	..	4	..	1	1
49 ....	1	..	1	2	..	1
50 ....	1	..	1	5	1	3
51 ....	..	..	1	1	..	..
52 ....	..	..	..	..	..	1
53 ....	..	..	2	1	1	..
54 ....	..	..	..	1	..	1
55 ....	..	1	..	..	..	1
56 ....	..	..	1	2	1	2
57 ....	..	..	1	1	..	2
58 ....	..	1	3	2	1	..
59 ....	..	..	..	1	1	..
60 and upwards	..	..	11	11	18	20
Total ....	32	210	42	71	42	132

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In the space that remains at my disposal, it is not possible to enter as fully as I had hoped to do into the question of remedies. The passing by the House of Commons in November last of a clause in the new Employers' Liability Bill making employers liable for injury to the health or life of their workpeople in cases where reasonable precautions have been neglected is a remedial step of the first importance. But I believe it will be found that nearly, if not quite all, of the evils to life and health caused by our present industrial conditions are capable of remedy. The wonders that have been worked by the Public Health Acts in many of our towns are a proof of what great things may be done when once the community wakes up to the vital importance of obtaining public health. We should be somewhat over sanguine, however, in expecting any strenuous attempt on the part of the Local Government Board to set anything like a high standard of health, to exact a low weekly death rate, or to know the reason why, until the people of Great Britain have pulled themselves together on this question and done something to master their existing powers, and the strength as well as the limitations of local government; above all, until they have formed some idea in their own minds of what should constitute a healthy and wholesome life. So long as they allow manufacturers to pollute the air with smoke and to fill the rivers with filth, to blacken the green country, and to make cleanliness in the home almost impossible because of the drift of grit and smuts—so long as we tolerate workshops and factories whose air is not fit for human beings to breathe and whose sanitary arrangements are simply pestilential, workmen and women and their children will continue to be treated by the powers that be as though their lungs were of brass and their nerves of steel. Considering how fast the great portions of our race, pent up in some of our high-pressure, unhealthy towns, are hurrying down hill, deteriorating generation after generation in stamina, fibre, and muscle—how the country districts are being drained of their people, until the reserve force, which rural England has so long provided, is dwindling out of sight, it is high time that the people woke up to the necessity of grappling with the conditions which shape, not only the lives, but even the very characters of our race. Factory Acts and Public Health Acts are, after all, only instruments of greater or lesser efficiency according to the will and skill to use them. If property and trade are the first considerations, then we may be very sure that the administration will be slack and slovenly and the death tax exacted, by these lords paramount, very high. But as soon as human welfare becomes the first thing needful, it is wonderful how difficulties and impossibilities vanish away. The first-rate minds which have hitherto been in the pay of trade, or driven

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into exile from the world of affairs—the men of science, philosophers, biologists, sanitarians, the poets, and artists, and musicians, and all those whose work is something of a revolt against conditions that defile or that are repugnant to nature—all these men will help to make the marching music of progress. The successful city will no longer be a place stockaded round with big villas, each with its greenhouses, and shrubs, and gate posts, on which the name of Chatsworth, or Haddon, or some other modest rendering of the city man's ducal ideal, is inscribed, and an inner place of plausible but delusive high streets which only shut out the dull, low levels of poverty, where ill-health, mental and physical, is written in the gloom and cheerlessness that prevail. The new city will be prouder of the height of its children, and their measurement round the chest, than of the height of its chimneys and the bulk of its manufactures; and if it has less in the way of vulgar and ugly pretension to display, there will be better order, arrangement, and symmetry, as well as more colour and free movement of life in the new city. It is even conceivable that people may grow light-hearted again—a thing which is impossible to the cave-dwellers of modern life. We may hear workmen coming home from their work—and the strictly workaday part of the town, where the necessarily noisy, jarring, and dirty work has to be carried on, will be a quarter by itself when public health is president of the new republic—marching along as they do in Italy, singing airs which are worth listening to, such as the old English airs were before the days when nothing but the naked screech of the music-hall could make itself heard above the roar of the streets.

Co-operators know well enough, without being told of it, that they stand committed to this work of reconstructing society on healthy and cheerful lines. The reform of trade and industry on which they are engaged must carry with it the reform of those bad conditions of life which we have been considering. Our social organism is lopsided because the strong prey upon the weak, the idle upon the toiling—because exchange is robbery as conducted at present, and distribution in its most profitable form the art of interception. As all that is altered, and people have time to think and energy to pull themselves up to a higher level of life, the ugly markings with which trade has tattooed everything will speedily disappear. To take a case in point. The Co-operative Wholesale Society undertakes to manufacture boots and shoes on a democratic plan for the co-operators of England and Wales, its object being to provide good and reliable, yet economical, workmanship. If the Society had simply been in the search of profits it would scarcely have built such a palace of health and comfort as the Wheatsheaf Works at Leicester, nor would it have installed the electric light and

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set up a great cyclone ventilator which sends a stream of fresh air through the works all day and whirls away every particle of dust produced in the course of manufacture. Co-operators argue, however, that you must look for the qualities of your work in the qualities of the surroundings of your workers, and that to expect good, reliable workmanship under bad and unwholesome conditions would be a contradiction in terms. Take the Shieldhall Works, again, where everything has been planned for the comfort of the workers, and you find just the same considerations prevailing. Or go to the co-operative bakeries which exist in so many towns, and compare them with the private bakeries. Doubtless, in many respects, the co-operative workshops conducted by the stores do not come up to the establishments of private traders, but in the matter of bakeries, which are after all one of the most vitally important branches of manufacture, co-operators may claim to be leading the way. And there is no reason to doubt that the policy which commends itself to them in their own institutions will be advocated as the co-operators gain increased representation on local public bodies. Much is to be hoped from their influence; from their training as organised consumers, when the great health crusade is undertaken in earnest, and the right of the workman to healthy surroundings in the workshop and the home takes its place as a vital part of the claim for the living wage.

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## FURNITURE WOODS, WITH SUGGESTIONS FOR THE INTRODUCTION OF NEW KINDS.

BY JOHN R. JACKSON, A.L.S., ETC., CURATOR OF MUSEUMS,  
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[ILLUSTRATED BY JOHN ALLEN.]

THERE is probably no one subject connected with the products of the vegetable kingdom that has such numerous and extended ramifications as that which brings under review the forest produce of the world, as distinct from that of agriculture and cultivation generally. Twenty or thirty years ago to speak of forest produce meant alone the timber, yield of the trees which composed those forests. It is true that caoutchouc, or india-rubber and gutta-percha, together with cinchona and other drugs of vegetable origin, and tanning and dyeing materials, amongst other articles of commerce, were equally well known then as now, but it has been reserved to quite recent years for anything like an adequate consideration to be given to the less known products of the forests of India and our far and wide colonial possessions, under what is now collectively and generally known as "minor products."

This increasing development of the natural resources of the world arises from several causes, not the least of which is the ease and rapidity of intercommunication with all parts of the universe, not only by personal transit, but also by flashing thoughts that are continuously encompassing the circumference of the globe. As a natural consequence of this it has become possible to transmit from one part of the world to another, and often a very distant one, valuable economic plants to be established and cultivated not only to ensure the perpetuation of any given product, but to increase its yield to meet the constant demand of the ever-growing population.

From energy and enterprise thus displayed we are enabled to obtain many important economic products from countries far and wide of each other, and equally distant from the original home of the plant producing such product. If such forethought for the welfare of future generations has been considered necessary in plants of easy and rapid culture, how much more important is the question of perpetuating the timber supplies of the world, for the production of timber from new plantings is not a matter that can be accomplished in the course even of a few years. It is, however, satisfactory to

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know in this connection that within the last ten or fifteen years a considerable amount of attention has been given to re-afforestation in almost every part of the globe where forest productions form an important item of revenue. The most notable example of the organisation of a most thorough system of tree protection and planting, is that which has been so successfully carried on in India, under a complete staff of able officers—trained foresters, and many of them capable scientific men and excellent botanists—which constitutes a distinct department of the Indian Civil Service, under the title of the Forest Conservancy. With the accumulated knowledge of such a body of men who are intimately acquainted with the botanical affinities of the trees under their charge, whereby they are able to judge of the nature of the woods themselves, and their suitability to compete with allied woods for certain purposes, as well as with their habits and rates of growth, and many other important details, the Indian forests are now carefully protected and their utility ensured for the benefit of future ages, besides which their resources are continually being developed.

The importance of the proper conservation of forests in all parts of the world and the preservation of forest trees cannot be over estimated, for it is a matter that does not affect us alone as a nation, though even from that somewhat restricted point of view it is great, for the natural resources of our Indian and colonial possessions play a very large part in our commercial prosperity, but it is a much farther-reaching affair and affects the prosperity of the whole world. Taking only a few of the best known Indian timber trees as illustration of this we need only refer to teak, saul, satin wood, ebony, and sandal wood, the supplies of which in a few years would have become considerably diminished, if not exhausted, had not steps been taken by a system of careful cutting and replanting to perpetuate their existence, and to continue if not to increase the sources of supply.

From another point of view, also, the Indian forest system is one that commends itself as an example to other countries, for the attention of the officers has not only been directed to the preservation of their own indigenous trees, but the introduction of well-known timber trees from other countries has formed part of their scheme, and this has been considerably advanced by the co-operation of the several botanic gardens in different parts of India. One of the trees, not a native of the East, that has received perhaps the greatest amount of attention, is the mahogany, which has its home in the forests of the far-distant countries of Cuba, Honduras, Mexico, and Central America. It must be confessed, however, that the mahogany tree has met with only a varied success in India, and its prospects for extended culture in this part of our Empire is not so promising as

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we might wish, but this is no reason why further experiments should not be prosecuted to their utmost limits with hundreds of other trees of acknowledged value. This is no doubt a work that is slowly progressing in all or nearly all the British possessions, and the establishment of botanical stations, notably in the West Indies and West Africa, will in course of time develop this, as well as other branches of economic botany.

Next in importance to India as a timber-producing country belonging to the British Crown ranks Australia, with its neighbours, Tasmania and New Zealand, the timber resources of which are not only extensive with regard to geographical area, but are also rich in individual species known to furnish some of the most durable timbers for building purposes, as well as the most valuable and beautiful woods for cabinet work, some of which are already known in English commerce, while many others are known only in the colony producing them, and have yet to be developed in British trade. Fortunately for Australasia the forest products have had a considerable amount of attention paid to them by competent authorities, and though they are not perhaps worked with the systematic methods under which the Indian forests are placed, an authentic flora has been produced, and this, with the botanical gardens at Sydney, Melbourne, Adelaide, and Brisbane, has done much to promote a knowledge of the great timber resources of these colonies. It will be seen that our remarks so far have been directed chiefly to the products of our own possessions, but though we are naturally inclined to look at home first for the purpose of increasing the trade with our colonies, we must not forget that English commerce is much farther reaching than this, and that the products that are constantly being brought into our ports are gathered from all parts of the globe. If we take, for instance, the natural resources of the large Continent of South America we shall find that some of the most valuable and beautiful woods known to the English cabinet-maker are brought from the dense forests of Brazil, and it is a fact worth noting that, though many of these woods have been known to English commerce for the past 100 years or more, botanists are still in ignorance as to the nature of the trees which produce them. No better illustration of this fact can be mentioned than that of rose-wood, a wood always more or less in demand for work boxes, dressing cases, desks, and similar uses. The deep, rich brown colour of this wood with its bold dark markings are characters not possessed by other woods, and though it is in frequent demand and a regular article of import the tree or trees which furnish it are still unknown, and apparently likely to remain so without some active steps, which have been so long wanting, are taken to send a trained botanical collector into the forests with the

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wood cutters. The ignorance which prevails generally with regard to the ornamental woods and timbers of the great South American Continent is curious and very marked. The most we can say of rosewood is that it is probably the produce of one or more species of *Dalbergia* belonging to the natural order Leguminosæ, and we can say but little more with regard to many other Brazilian trees whose woods are articles of trade. Paraguay, again, is known to abound in valuable timber trees, for the most part extremely hard and very durable—timbers that have recommended themselves for use in many important engineering works in the Republic, but of the nature and character of the trees producing them absolutely nothing is known. We find the same want of knowledge again in the timber produce of our own colony of British Guiana, which we know to be especially rich in valuable cabinet woods. Again, in the English colony of British Honduras, from whence indeed much of that well-known wood, mahogany, comes, the timber resources are very great but the knowledge of them is extremely small.

It may be asked what advantage to commerce would a knowledge of the scientific or botanical origin of the individual denizens of any of these forests be? The answer to this, we think, is clear. First, if we know the botanical affinities of any well-known timber tree we are able to judge at once of its density, durability, strength, or otherwise; we are also able to form an opinion as to the suitability of such and such plants for introduction and acclimatisation into other countries, perhaps far removed by geographical range from that in which the plant is indigenous. Besides this, forests of young trees, which might perchance not be known in their youthful condition by the wood clearer, would perhaps be sacrificed, which in a few years, if left standing, would yield valuable timber. All these possibilities, or rather probabilities, of mischief are averted by the establishment of a systematic scheme of forest conservancy or preservation such as has been adopted in India, and the question is one of such vital importance, not only to the countries most directly concerned, but also to the commerce of our own land, that, with the view of placing the matter in the strongest light before our readers, we take the opportunity of embodying in this paper some remarks on the distribution of Indian forests made by that experienced forest officer, Sir Dietrich Brandis, so long ago as 1872. His remarks and recommendations have, so far as the Indian forests are concerned, been adopted, with the result that the supply of Indian timbers is ensured to future generations. Sir Dietrich, of course, reviews the subject of forest conservancy from all the most important points, and says, whatever views may be held regarding the slow, gradual, and limited effect of forest growth upon the climate, there is no doubt that in a hilly country, forests enable us in many cases better



Plate 1.

No. 1.—*MICHELIA CHAMPACA*.

No. 2.—*SHOREA ROBUSTA*.

No. 3.—*CHICKRASSIA TABULARIS*.

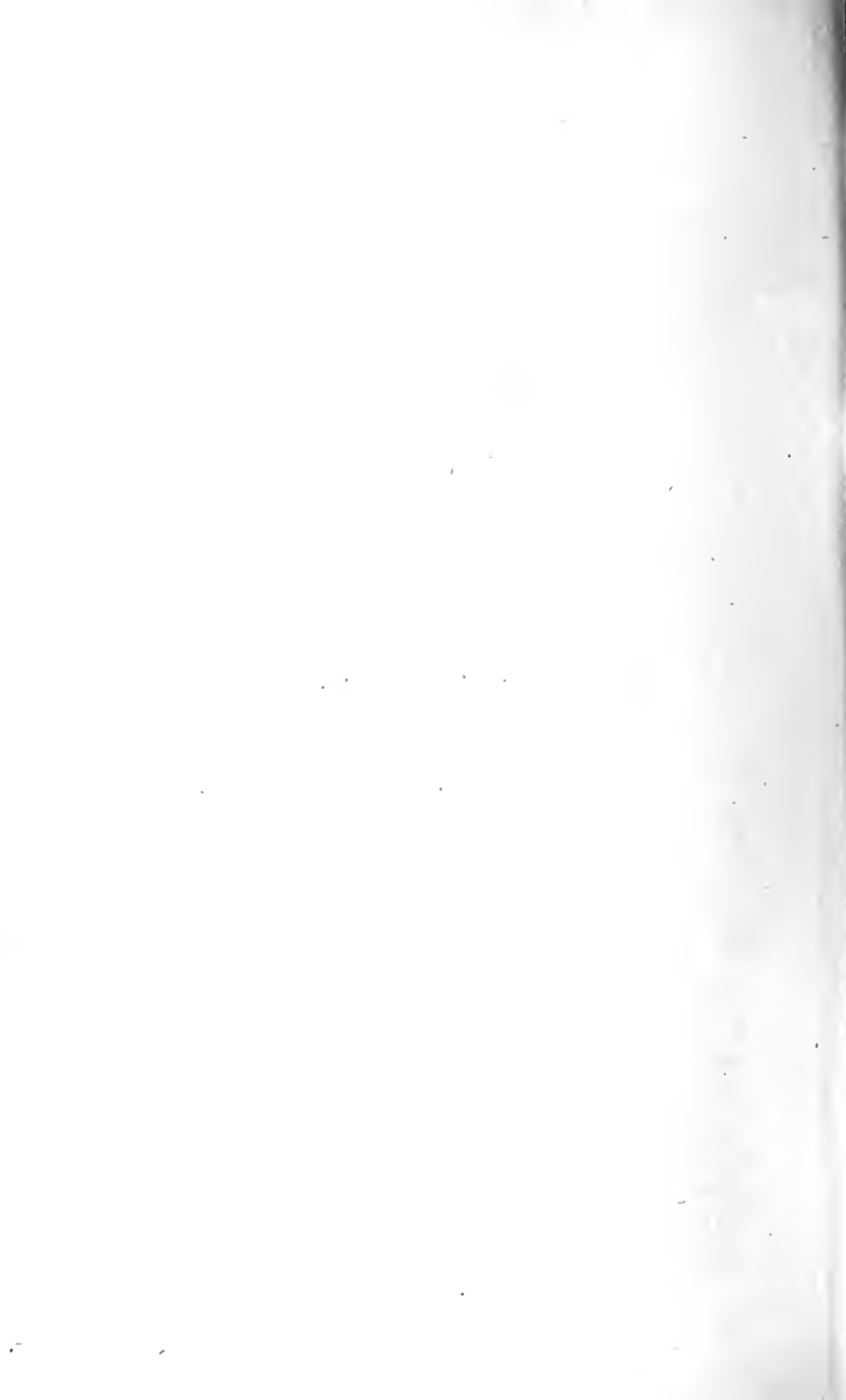




Plate 2.

No. 4.—CEDRELA TOONA.

No. 5.—SCHLEICHERA TRIJUGA.

No. 6.—GLUTA TRAVANCORICA.







Plate 3.

No. 7.—*ODINA WODIER*.

No. 8.—*OUGEINIA DALBERGIOIDES*.

No. 9.—*DALBERGIA SISOO*.





Plate 4.

No. 10.—ALBIZZIA LEBBEK.

No. 11.—OLEA CUSPIDATA.

No. 12.—HOLARRHENA ANTIDYENTERICA.

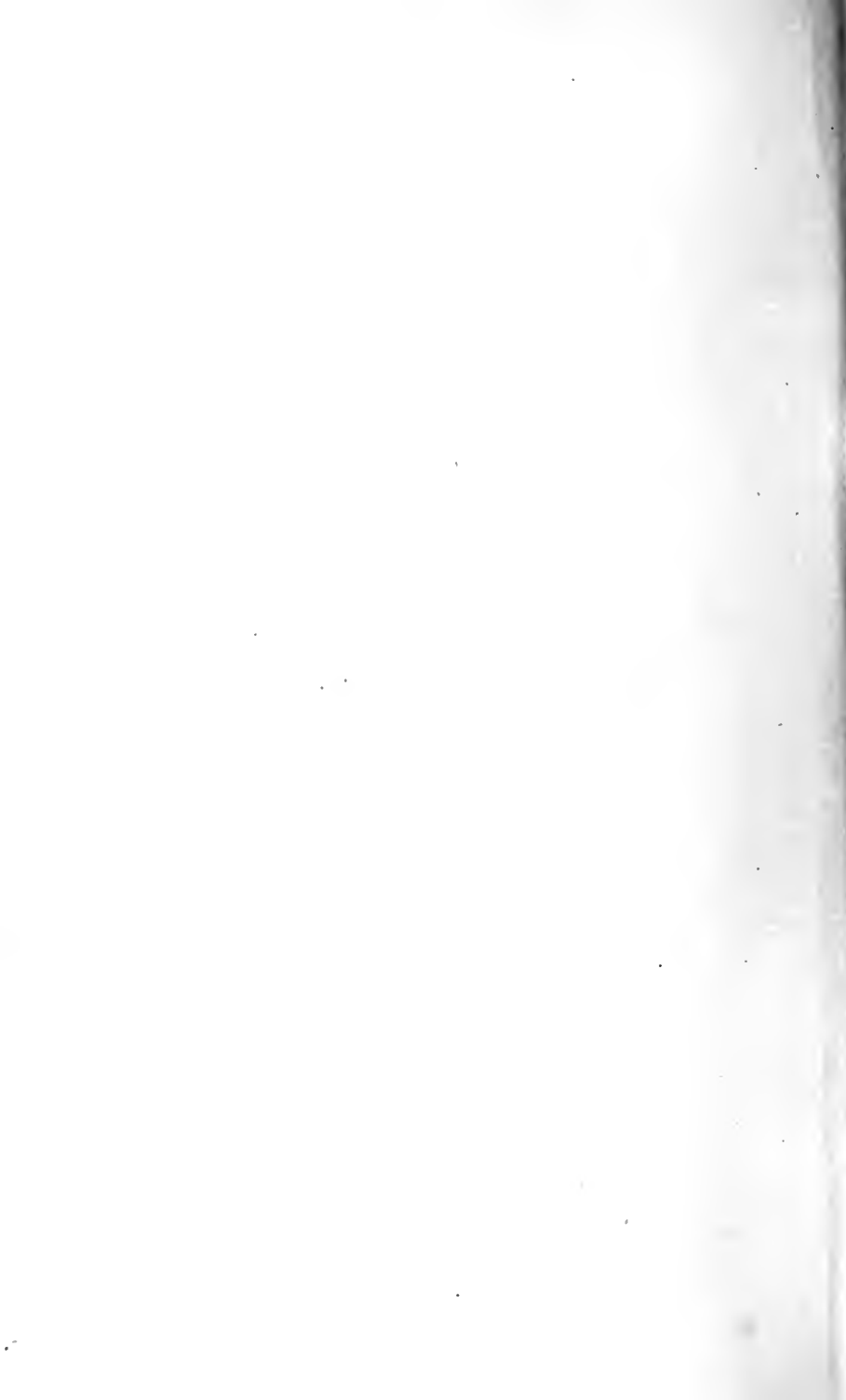


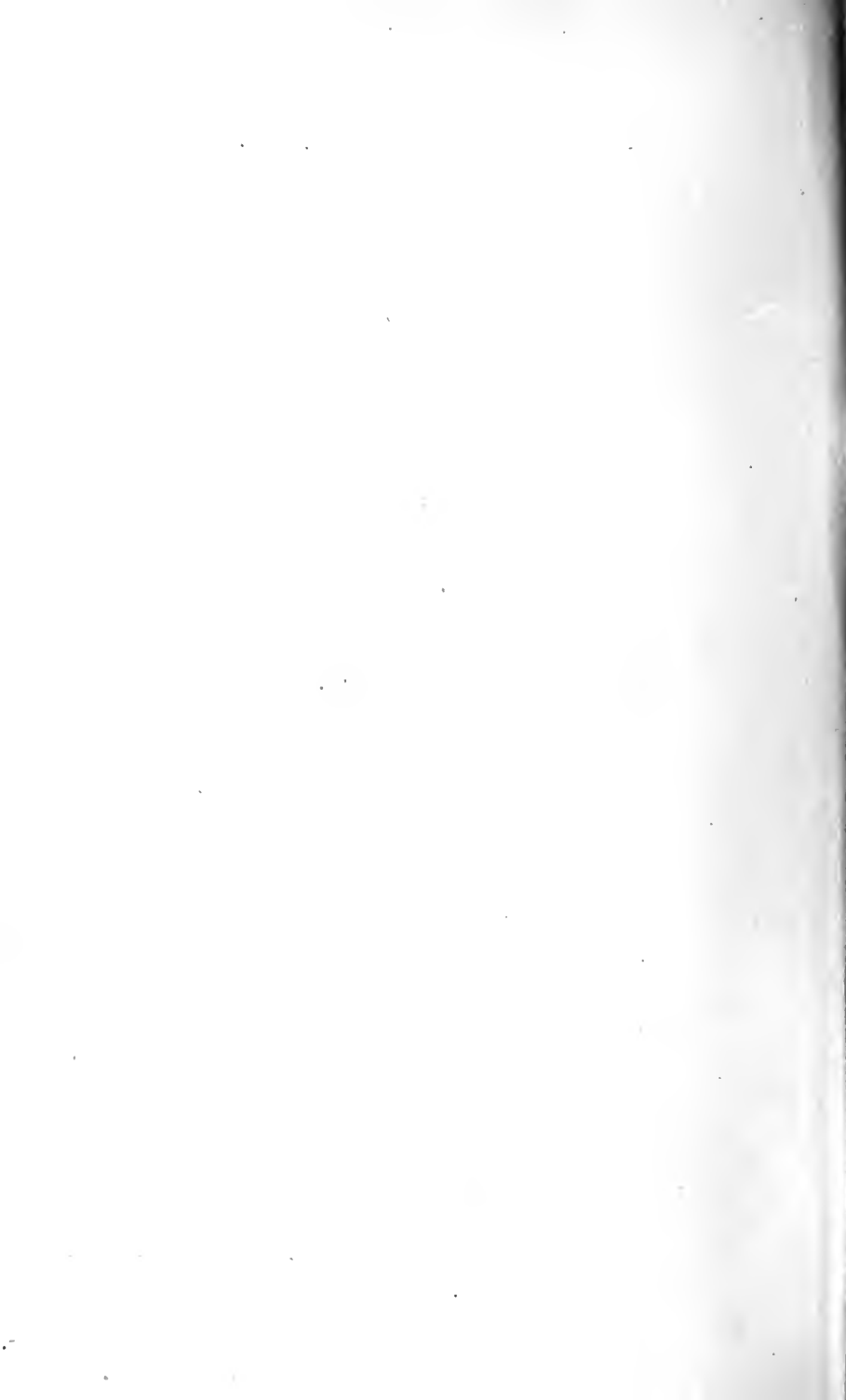


Plate 5.

No. 13.—*FLINDERSIA AUSTRALIS*.

No. 14.—*CASTANOSPERMUM AUSTRALE*.

No. 15.—*OLEARIA ARGOPHYLLA*.



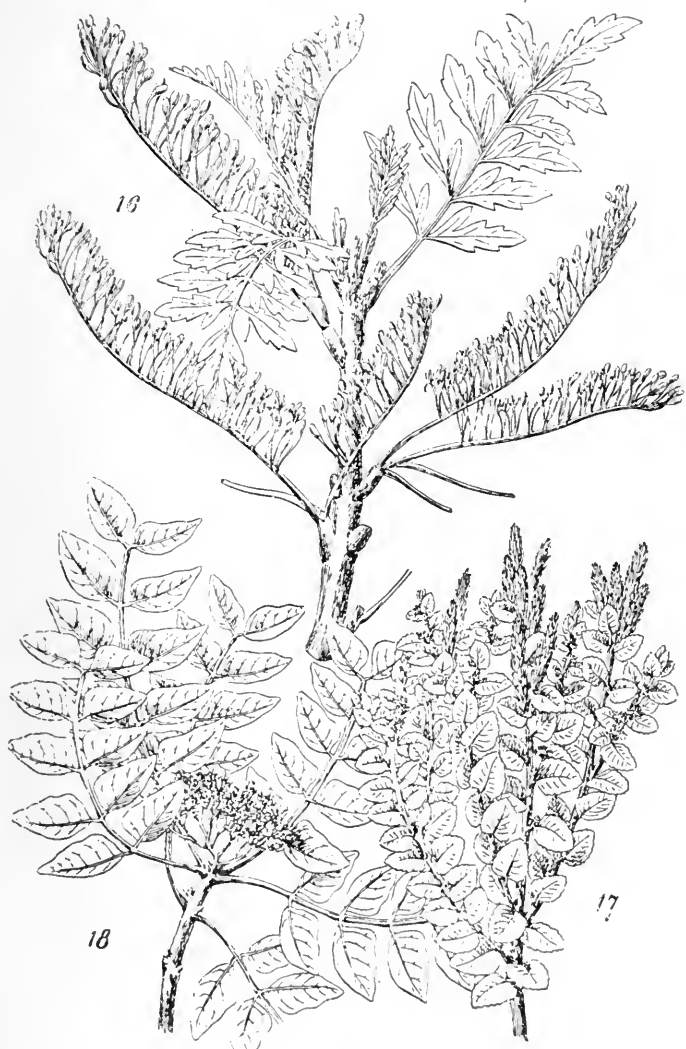


Plate 6.

No. 16.—GREVILLEA ROBUSTA.

No. 17.—FAGUS CUNNINGHAMI.

No. 18.—PTEROXYLON UTILE.







Plate 7.

No. 19.—OLEA LAURIFOLIA.

No. 20.—CALOPHYLLUM CALABA.

No. 21.—HYMENÆA COURBARIL.



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to husband the existing water supply for irrigation. Whether the drainage from the hills is collected in tanks and artificial lakes, as is the case in Rajpootana and Mysore, or whether it is employed to feed canals to carry water, fertility, and wealth into distant districts, the object is the same, to utilise to the utmost the water supply available during the year. Experience in India and elsewhere has proved that where hills are bare the rain rushes down in torrents, carrying away loose soil, sand, and stones, silting up rivers and canals, breaching and overflowing dams and embankments; but that where the hills are covered with meadows, fields, or forest, the superficial drainage is gradual, the dry weather discharge of rivers regular, the springs better supplied—in short, all conditions united, to ensure the more regular and useful filling of tanks and canals; and in many cases the attainment of these objects is in itself of sufficient importance to justify measures for the preservation and improvement of natural woodlands, and for guarding against the denudation of hilly tracts. Nor is it at all impossible that in some cases the preservation and extension of arborescent vegetation may have a beneficial effect upon the sanitary condition of a district. The unhealthiness of the Mauritius has generally been ascribed to the gradual denudation of the island, and to remedy this legislative measures were proposed for a system of reforesting the waste lands. Beyond all doubt, however, forest conservancy in all parts of the world has become necessary in order to meet the growing demands for timber, wood, and other forest produce. Under the influence of peace and prosperity advances are made in the habits of the peoples of most countries. The peasantry of entire districts in India, for instance, who were at one time content to live in miserable huts, now build good substantial houses and use better furniture, hence there is an increased demand for bamboos, wood, and timber. Again, in countries not fully opened up, the demand for timbers for railway construction is always more or less on the increase, for besides the rougher timbers required for sleepers and the construction of the permanent way, a large quantity is also required for buildings and fittings, and the choicer and figured varieties for carriages and the linings of them.

We have thought it best thus far to treat of forest produce generally, for to establish a system of forest conservancy every kind of product which the forests are capable of yielding must be equally considered. Timber trees for structural and building purposes must receive as much attention as those trees which are capable of supplying us with the choicest cabinet woods. For the purpose, then, of making the forests of the world more productive, not only in timbers and woods of acknowledged reputation, but also by the interchange of timber and wood-

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producing plants of various climes, we most strongly advocate in all wooded countries a most thorough system of preservation and careful treatment of the existing indigenous arboreal vegetation, and of the introduction of such plants, as in the opinion of a practical forester and botanist, would be likely to succeed and worthy of introduction, either from a reputation already established, or from their botanical affinities might prove new sources of supply to the great wood markets of the world, and thus be the means of furnishing novelties for our cabinet-makers and sources of wealth to the exporting countries. A point to be borne in mind by those who may be entrusted with the charge of forests is that fashion rules the demand for furniture woods equally with that of articles of clothing. At one time light coloured woods only are in request, at another dark woods are demanded. Many years ago rosewood and the darkest and boldest figured walnut was greatly in demand, then mahogany came forward as a powerful rival, and was used alike for drawing, dining, and bed room furniture. Mahogany held its position as the furniture wood *par excellence* for a long time, when American walnut became introduced, and very soon established itself, not only for the modern Queen Anne and so-called Chippendale furniture, but also for cornices, mouldings, and similar work. In the American walnut we have a wood which, from its brown tint and even grain, without much figure, is so distinct from the deep red of the mahogany, that when once a change was introduced the fashion took like wildfire. No polish was needed for a wood of this character, for when simply rubbed down with oil the rich brown colour was its chief recommendation. Enormous quantities of this wood were for a time shipped from America, and it was stated, as an illustration of the keen demand for it and the good prices realised, that one landed proprietor in America, who had in previous years cut down a large number of black walnut trees and had them sawn up for fencing for his ground, found it worth his while to pull the fencing down and export it, replacing it by a less costly wood. The reign of dark woods had their day, to be succeeded, especially for bedroom furniture, by American birch, a wood that commends itself for its warm, pinkish yellow tint and even grain, though it has little or no figure in the bulk of the wood.

Notwithstanding that the English cabinet-maker has at his command some very choice woods wherewith to develop his artistic taste, it cannot be said that he has a very great variety to select from, to enable him to produce such distinct changes in his work to avoid the monotony of repetition. This limited character of the material the workman is called upon to utilise, is at first not apparent, but a glance through the collections of woods that were brought together at the several International Exhibitions, and

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notably at the Colonial and Indian Exhibition in 1886, would prove the truth that not a tithe of the world's productions of ornamental woods have yet become utilised as they ought to be; indeed, we may go further and say that as yet they are scarcely known out of their own countries. And this brings to our mind the question whether the gigantic and varied collections of all kinds of produce that are brought together at these periodical exhibitions are calculated to promote their extended application or to develop their usefulness. The matter is one upon which varied opinions have been expressed, and though it does not come within our scope for argument, we may perhaps express our own opinion that the result in any one direction has not been such as was desired or expected. More satisfactory work was accomplished in this connection at the Colonial and Indian Exhibition than at any of its predecessors, for many of the woods were tested practically with regard to their strength and durability, and reports published of these experiments. A permanent collection of woods, such as that shown in the Timber Museum of the Royal Gardens, Kew, is likely to do much more good in a quiet way than any exhibition carried on under great excitement and as a show, rather than as a place for study and thought. It cannot be too widely known that the series of woods at Kew have been very carefully selected, mostly from the several exhibitions, and that they can be seen and examined daily, and every facility is offered for such examination to anyone specially interested in them. The woods are arranged geographically, that is according to the countries producing them, so that the resources of any individual colony can be seen at a glance. Though we have reason to believe that this collection has been of much use to a number of persons practically engaged in the wood industry, its existence is perhaps not sufficiently known to enable it to be of that service which a national collection of this character ought to be. It is with the view of bringing a few of the most marked and interesting of these woods to notice, in the hope that they may find a market here, that we refer to this collection, and draw special attention to them in the following pages.

In a collection of this nature, where the woods are brought side by side and the specimens are, for the most part, of unusual dimensions for museum specimens—indeed many of them are of the full diameter of the trees as they grow—the large size of many of our Indian and colonial trees, when compared with those of our own country, are the more striking, and, again, the character and markings of the woods are more readily seen. There are several elements which go to make up beauty in cabinet woods; firstly, colour, and the deepest colours are for the most part found only in the heart wood, the sap wood being usually colourless and without

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figure; to this last element of beauty the medullary rays, or thin plates, which radiate from the centre outwards, play a very considerable part, the silver grain of the oak and plane, which is so characteristic of these woods, being entirely due to this large development of medullary plates. In the highly-coloured woods where the medullary rays are prominent the value of the wood is considerably enhanced from an ornamental point of view, varying very often not only in size but in boldness of character, colour, tone, and lustre, so that when seen in different lights they present different colours. A botanical knowledge here helps a connoisseur in woods vastly, for it is only in some natural orders of plants that we may expect to find this large development of medullary rays. The oak and plane, just referred to, are familiar examples amongst British-grown woods, while amongst foreign woods we have many examples in the natural order Proteaceæ, which includes the silver tree of the Cape (*Leucadendron argenteum*) and several species of *Protea*, and amongst Australian woods the silky oaks (*Stenocarpus salignus* and *Grevillea robusta*), the Australian honeysuckle (*Banksia integrifolia*) and several other species of *Banksia*. Again, in the natural order Casuarineæ a similar character of figuring prevails, but accompanied by a deeper and richer reddish tint; the woods are also considerably harder, much heavier, and more difficult to work than those of the Proteaceæ. The several species of *Casuarina* which have their headquarters in Australia, are mostly known in that colony by the appellation of oaks, such as she oak, forest oak, swamp oak, and sometimes beef wood. It is, then, to trees belonging to these families, namely, Corylaceæ (oak), Platanaceæ (plane), Proteaceæ (silky oak), and Casuarineæ (she oak) that we must look for woods having this distinctive character of figure. Another source of beauty or variety in wood marking is due to the disposition of the annual rings, whether broad or narrow, regular or irregular, the greater the irregularity the more variety there is shown when the wood is cut through. An alternation of colour very often accompanies these concentric rings, producing different effects, not only of light and shade, but absolute contrasts. We find illustrations of this in the Brazilian tulip wood (*Physocalymma florida*), in yew (*Taxus baccata*), as well as in some other woods, the scientific names of which are still unknown, such as king wood, partridge wood, &c. These characters, founded on the disposition of the annual layers, are not confined to any particular families of plants, such as we have seen is the case with the arrangement of the medullary rays. Another character which is more or less general to all natural orders is the symmetrical distribution of colour, which often passes by insensible degrees into stripes or veins, of which zebra wood (*Omphalobium Lambertii*) and rosewood are examples.

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Knots or burrs, which often grow on the trunks of trees, furnish some of the most beautifully marked furniture woods. These are due to abnormal growths, or arrested branches, and are common to all natural orders alike; the most familiar examples of this figuring are to be found in bird's-eye maple, and wavy or curled maple (*Acer saccharinum*), amboyna wood, furnished probably by a species of *Pterocarpus*, and that most beautiful of all woods the thuya or citron wood of Algeria (*Callitris quadrivalvis*). Woods cut from burrs or knots bear no similarity whatever in appearance to planks cut from the main trunk, which, for the most part, is not only plain and straight grained, but often of an entirely different colour from that of the burrs.

In directing special attention to the following woods as likely to prove valuable additions to the comparatively limited number at present known to English cabinet-makers, we have thought it best to arrange them under the heads of the countries producing them as being probably the most useful for reference by those who may be specially interested in the produce of any one part of the world, while for those who may be acquainted with the timber and hard wood produce of the world generally, it will be easy to select any given wood with which they may not be acquainted, and if there are points in the character or description of such wood, which would in their opinion recommend it, it would then be quite within the range of practicability to obtain samples of such wood for trials here, with the view of testing its capabilities for any particular branch of cabinet work, or the possibilities of its being taken up by the British public. It must be understood that the woods enumerated in the succeeding pages are either quite new to British commerce, or, having been occasionally introduced, have not been fairly tested by the voice of public opinion, and are, therefore, practically unknown.

## INDIAN WOODS.

1. *Michelia Champaca*.—This is a tall evergreen tree, often producing, at the age of 100 or 120 years, a trunk 8ft. in girth. It is known as Champa by the Hindoos. The wood is comparatively soft, and seasons, cuts, and polishes well. The sap wood is white and the heart wood of a light olive brown colour, the annual rings being distinctly marked by a white line. It is very durable, and is used in India for furniture, house building, and especially for planking, also for door panels and carriage work. The tree is found wild in Nepal, Bengal, Assam, Burma, and in the forests of the Western Ghats, and is cultivated throughout India. An allied species (*Michelia excelsa*) known as the Bara champ, likewise a lofty but deciduous tree of Eastern Himalaya and the Khasia Hills,

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produces a wood somewhat similar in appearance, equally durable, and much used for building purposes, especially for door and window frames, as well as for furniture. It is indeed the principal building and furniture wood of the Darjiling Hills. (See No. 1, Plate 1.)

2. *Calophyllum spectabile*.—This is a tall evergreen tree of Tenasserim and the Andaman Islands, where it is known as the Panta-ka. The wood is of a light red colour, somewhat cross grained with a shining appearance, and moderately hard. In the Andamans it is used for masts, spars, planking, and for building purposes generally.

3. *Calophyllum inophyllum*.—This fine tree is known in India as the Alexandrian Laurel, or Pina. It is an evergreen, and is very common in the forests of South India, Burma, and the Andaman Islands, and is very frequently cultivated in other parts of India on account of its ornamental character. The tree is not confined to India in its geographical distribution, but is common in tropical Asia, Polynesia, Mauritius, and Madagascar, where it is known as the Tatamaka. The wood is of a reddish brown colour, moderately hard, and close grained, and often shows a good deal of well-marked and choice figuring. In India it is used for masts and spars, for which purposes it is noted for its strength. Railway sleepers are also made from it, and for machinery work it is extensively applied. Though the wood is somewhat heavy it might be found a useful wood for certain kinds of furniture.

4. *Calophyllum tomentosum*.—This is another species of the same genus as the last two, and is known in India by Europeans as the Poon Spar tree, and by the natives as Poon. It furnishes the Poon spars of commerce, which often fetch high prices; besides this it is used in India for building, especially in the construction of bridges. The wood is very similar in structure and appearance to that of *C. spectabile* (No. 2). The tree is a large evergreen, found in the forests of the Western coast from the Concan southwards, and extending into Ceylon.

5. *Mesua ferrea*.—This is commonly known as the Nagesar, or Indian Iron wood. It is a large evergreen tree, very widely spread in India, both in a wild state and under cultivation; it is also found in Ceylon, Burma, and the Andamans. The wood is very hard, as its common name would indicate, of a beautiful rich, dark red colour. It has a high reputation in India for durability, and it is used for building purposes, for bridges, gun stocks, and tool handles. Its fine colour would recommend it as a furniture wood, though its weight and hardness would tell against it. It might, however, be used for veneers. The tree is very frequently planted in India for the sake of its handsome fragrant flowers, which the natives use for sachets.



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6. *Schima Wallichii*.—The Chilauni of the Indians, a large ever-green tree of moderately fast growth, native of Northern and Eastern Bengal and Chittagong, up to an elevation of 5,000 feet. The wood, which is of a red colour, is fairly hard and very durable, though it is apt to shrink in seasoning if care is not taken with it. Its principal use in Northern Bengal and Assam, is for building purposes, and it is stated that many of the Darjiling tea factories have been built of it. Large quantities of well-grown, straight, timbers are available in India, and as the tree produces abundance of seeds every year, which, falling from the fruit, readily germinate and come up in profusion, where there is sufficient light and a freshly stirred soil, so that should there spring up a demand for the wood, there is no fear of the supply failing.

7. *Dipterocarpus turbinatus*.—A very tall evergreen tree, known as the Gurjun oil tree, growing in Eastern Bengal, Chittagong, Burma, and the Andaman Islands. The wood is moderately hard and even grained, the heart wood of a reddish grey colour. It is used in Burma both for house and canoe building. It is a wood that might be found useful for many purposes in English trade. It yields a quantity of oil, resin, or wood oil, used in painting houses and ships.

8. *Dipterocarpus tuberculatus*.—A very large deciduous tree, known both to Europeans and to natives as the Eng tree, and forming large forests in Burma called Eng forests. It is found also in Chittagong. Like the last named, the wood is hard and close grained, and of a reddish colour, and is used very extensively in Burma for house building, canoes, and similar purposes.

9. *Dipterocarpus alatus*.—This tree grows to a very large size, and is found in Chittagong, Burma, and the Andaman Islands. It is generally known as the Kanyin tree, but sometimes the name of Gurjun is applied to it, like that of *D. turbinatus*. The sap wood is white, and the heart wood of a reddish grey colour, fairly hard and well grained. It is chiefly used in the countries where it grows for house building and canoes; but for these purposes it is said not to be durable, but for furniture it might prove a useful wood.

10. *Shorea robusta*.—This is the Sāl or Saul tree, one of the best known of Indian timber trees. It grows to a very large size, and is seldom or never quite leafless. It has a wide distribution in India, extending through tropical Himalaya, and along its base from Assam to the Sutlej, in the Eastern districts of Central India, and Western Bengal Hills. The trunk has but a small development of sap wood, which is of a whitish colour, and not durable, while the heart wood is brown, finely streaked with dark lines, very hard, but somewhat coarse grained, with a peculiar fibrous and cross-grained structure. In consequence of the great value of this wood in India

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a considerable amount of attention has been paid to its careful preservation, the rate of growth, weight, strength, and other details. It seems, however, to be a difficult wood to season, warping and splitting in the process of drying without very great care is exercised. It is apt to dry rapidly on the surface, remaining for a long time wet beneath, and the perfect evaporation continuing at a very slow rate. With proper precautions, however, the wood can be thoroughly seasoned, and when dried very slowly it is unrivalled for strength, durability, and elasticity, all of which properties it retains without the slightest change for any length of time. In Northern India Sál wood is perhaps the most extensively used wood of any produced in the Indian forests, being in regular request for piles, beams, planking, bridge work, door and window posts, gun carriages, and also for canoes. (*See No. 2, Plate 1.*)

The Sál tree possesses the power of natural reproduction in a remarkable degree. The seeds ripen at the commencement of the rains, and sometimes even germinate before leaving the tree; being naturally scattered abroad, they fall to the ground, when a crop of seedlings soon spring up, to be destroyed too often by jungle fires, but so great is the vitality of the plant that the roots of the stems destroyed soon put out fresh shoots, and, this happening in successive years, a large hard burr or ball of wood is formed. With protection from fire the Sál forests would become very widely spread, and the supply perpetuated. The seedlings of a few years' growth soon kill the grass, and smaller growing plants, and form forests, often of some extent, and consisting entirely of Sál trees. Besides the wood the Sál is valuable for its other products, exuding, on being tapped, large quantities of a light-coloured resin, which has an aromatic odour. This resin is often found in very large masses, buried in the ground, at the bases of the trees, from whence it is dug up, collected, and sold for caulking boats, as well as for burning as a kind of incense. The resin, which has remained buried in the ground for a very long period, and which has become semifossilised, occurs sometimes in English commerce, and is used for varnish making. It will be gathered from these remarks that the Sál tree is one of the most useful of Indian trees, and though the wood is extensively used in the country where it is produced, its uses might be still further extended and even exported for English trade.

11. *Hopea odorata*.—This is a large evergreen tree, known as the Thingan in Burma, in the forests of which, and the Andaman Islands, it is found scattered. The wood is of a yellow or yellowish brown colour, hard, close and even grained. It is described as the chief timber tree of Tenasserim, and is used for house building, canoes, cart wheels, &c. It is a remarkably durable wood. Boats made from it are said to last in perfect condition for quite twenty years.

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12. *Thespesia populnea*.—This is sometimes known by Europeans as the Indian tulip tree, and is an evergreen of moderate size. It is a native of the coast forests of India, Burma, and the Andaman Islands, and is distributed in many parts of tropical Asia, the Pacific Islands, and Africa. The sap wood is soft, but the heart wood is hard, of a pale reddish brown colour. It is durable and not difficult to work, and is valued in all the countries where it grows, being adapted to many useful purposes. In India it is used for furniture, carts, carriages, boats, and for gun stocks.

13. *Pentace burmanica*.—This is a very large and lofty tree, native of Martaban and Pegu. The wood is of a yellowish red colour, shining, somewhat soft, and even grained, and takes a good polish. It is known in Burma as the Thitka tree, where it is very largely used for boat building, as well as for boxes. Large quantities of this wood are now said to be annually exported from Burma, and some finds its way to the European markets, though a few years ago it was almost or quite unknown.

14. *Berrya Ammonilla*.—A large tree closely allied botanically to the last named, and found in Southern India, Burma, and Ceylon. It is known to Europeans as Trincomali wood, and to the Burmese as Petwoon. It has a very hard, close grained, dark red heart wood, noted for its durability, flexibility, and toughness. Its chief use in India is for carts, agricultural implements, and spear handles. Its colour and strength should recommend it for many uses in this country.

15. *Melia Azadirachta*.—This is the well-known Neem, or Margosa tree of India, growing to a large size, and found commonly planted and self-sown over the greater part of India and Burma, as well as in other tropical countries. It has a grey coloured sap wood and a very hard, red coloured, heart wood, much used in India for carts and ship building, as well as for agricultural implements, and in Southern India especially for furniture. It is one of the trees held sacred by the Hindoos, who make their idols from it. The tree also furnishes many other useful products, such as gum, which is used in medicine as a stimulant, and a yellow coloured bitter oil is obtained from the fruit used as an antiseptic and anthelmintic, as well as for illuminating purposes.

16. *Melia Azedarach*.—This is a closely allied tree to the last, and is known in India by the names of Persian lilac, bastard cedar, or bead tree. It is commonly cultivated throughout India, and is found also in Persia and China. The sap wood is of a yellowish white colour, and the heart wood red and somewhat soft. It is very frequently found with handsome markings, and the wood takes a good polish. In India it is much used for furniture. The name bead tree is given to it because the nuts are used for making necklaces and rosaries.

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17. *Dysoxylum procerrum*.—An evergreen tree found in Assam, the Khasia Hills, and Cachar to Pegu and Tenasserim. The wood has a very handsome appearance, is of a bright red colour, polishes well, and might be found very useful, were it better known. *D. Hamiltonia*, an allied species, has also a close grained, hard, red coloured wood, which is used in Assam for boats and planks.

18. *Sandoricum indicum*.—The Thitto of Burma, where it forms a fine evergreen tree. It has been introduced into Southern India, and is found also in the Malay Islands. It has a grey sap wood, and a beautifully red mottled heart wood, close grained, moderately hard, and takes a fine polish. In Burma it is used for carts and boat building, and is quite worth a trial as a furniture wood in this country.

19. *Amoora Rohituka*, commonly known in India as the Rohituka. A large evergreen tree with a reddish coloured, close, and even grained, hard wood, which, though of acknowledged merit, is but little used, though in Chittagong canoes are said to be sometimes made of it. The tree is widely distributed over India, and is found also in Ceylon, the Malay Archipelago, and the Philippines.

20. *Carapa moluccensis*.—This is a moderate-sized evergreen tree of the coasts of Bengal, Malabar, Burma, and Ceylon. The wood is hard, of a whitish colour, turning red on exposure. In Burma its chief use is for house posts, tool handles, and spokes of wheels. The tree is a close botanical ally to the crab wood of British Guiana and the West Indies (*Carapa guyanensis*), and yields, like that tree, from its seeds, a quantity of oil, which the people use either for burning or for the hair.

21. *Soymida febrifuga*.—The Indian red wood, or Rohan, of the Hindoos. It is a large deciduous tree of Central India and the Deccan, and occurs also in Ceylon. It has a small whitish sap wood and an intensely hard, close grained heart wood, of a reddish black colour. The wood is used in India for various works of construction, and for oil mills, well work, ploughshares, &c., on account of its extreme durability. The colour and appearance of the wood has much to recommend it for furniture, but its hardness and weight would probably be against it. The bark has a bitter taste, and is well known in India as a remedy in diarrhœa and dysentery.

22. *Chickrassia tabularis*.—A fine tree known as the Chittagong wood, or by its Bengal name, Chikrassi. The tree occurs through Eastern Bengal, Assam, Chittagong, Burma, and Southern India, as well as in Ceylon and Malacca. This is a hard, compact, and very beautiful wood, varying in colour from yellowish brown to reddish brown, with a beautiful wavy, satiny lustre, somewhat after the fashion of satin wood, but with bolder and deeper toned

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markings; these wavy lines, which catch the light in various directions, give an exceptional character to this wood, which seasons and works well. It is much used in India for furniture and for carving, and we feel sure that if it were once introduced for cabinet work in our own country there would be a great demand for it. A fine specimen of this wood may be seen in the Timber Museum at Kew. In addition to the value of the wood the bark is powerfully astringent, and the flowers furnish a red or yellow dye. (*See No. 3, Plate 1.*)

23. *Cedrela Toona*.—A large tree known in India as the Toon tree. It is abundant in Southern India, Bengal, and Burma, and extends to Java and Australia. It is a tree of rapid growth, and produces a soft and easily-cut wood of the mahogany type, to which indeed it is closely botanically allied. It is perhaps rather more distinctly red in colour than mahogany, and much more open grained, consequently it is a lighter wood. It seasons well, and is not liable to split or warp, and has a fragrance similar to that of cedar. In India the wood has a very wide reputation, and is highly valued for furniture of all kinds, besides which it is also used for house carpentry, door panels, and carving. At one time the trunks of the very large trees were used for dug-out canoes in Bengal and Assam, where, as well as in Burma, trees have been commonly found up to a height of 80 or 100 feet, with a girth of 20 feet. Notwithstanding that the wood is said to be exported to the English market from Burma under the name of Moulmein cedar, it does not seem to be so well known amongst cabinet makers as it deserves. Some planks of this wood cut from trees grown in New South Wales and Queensland, and described as the produce of *Cedrela australis*, are of very fine figure and remarkable beauty, and are well shown in the Kew collection. Considering that the plants are easily propagated from seed its cultivation in India and Australia should be as widely extended as the use of its wood should be in this country. (*See No. 4, Plate 2.*)

24. *Elæodendron glaucum*, known in India as the Mirandu. A tree of India, Ceylon, and the Malay Archipelago. It has a moderately hard, even, and close grained wood, of a light brown colour, frequently with a reddish tinge, often very beautifully curled; it works well, takes a good polish, and is valued in India for cabinet work, as well as for making picture frames.

25. *Schleichera trijuga*.—This is a large deciduous tree, known as the Kosum, found in India, Burma, Ceylon, and Java. It furnishes a hard wood, of a reddish brown colour, extremely strong, and very durable, and might be found useful for the heavier kinds of furniture. The seeds furnish a large quantity of oil used for burning in Malabar. (*See No. 5, Plate 2.*)

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26. *Gluta travancorica*.—A very large evergreen tree of Tinnévely and Travancore. The wood is very hard and close grained, of an extremely rich dark red colour, almost approaching crimson when polished; it is, moreover, often beautifully mottled with light and dark streaks. It works well, and, though but little used in India, its qualities and general appearance should recommend it to notice as a first-rate cabinet wood. A very fine slab is in the Kew collection. (See No. 6, Plate 2.)

27. *Odina Wodier*.—A moderate-sized or large tree, found throughout the hotter parts of India, as well as in the Andaman Islands and Ceylon. To the natives it is known as Kiamil. The heart wood is of a light red colour when freshly cut, changing to a reddish brown by age and exposure. It is fairly hard, close grained, seasons well, and is not liable to warp, though the wood is said not to be very durable. It is used in India for a variety of purposes, such as spear shafts, wheel spokes, oil presses, and rice pounders. From its colour and general appearance the wood might be found useful for ordinary furniture. (See No. 7, Plate 3.)

28. *Millettia pendula*.—A deciduous tree of Burma, where it is known as the Thinwin. Though the heart wood is of small diameter, it is beautifully streaked, purplish black, and very hard. It is but very little used in India, but is quite worthy of attention as a cabinet wood, or for inlaying.

29. *Ougeinia dalbergioides*.—This is the Sandan of the Hindoos, and is found in Northern India and the Concan, forming a moderate-sized tree. It has a light brown, or sometimes a reddish brown, mottled heart wood, hard and close grained, very tough and durable, and susceptible of a high polish. In India it is used for furniture, building purposes, carriage poles, wheels, and agricultural implements. (See No. 8, Plate 3.)

30. *Dalbergia Sissoo*.—This is the Sissoo, one of the best known Indian timbers. It is a large deciduous tree, common through India, and found also in Afghanistan and Beluchistan. It is planted extensively as an avenue tree all over India. The heart wood is of a brown colour, with dark longitudinal veins, very hard, close and even grained, and seasons well, not liable to warp or split, and is very durable. For furniture, cart, carriage, and boat building it has the reputation of being unsurpassed by any other wood. It is not unknown in this country, but it deserves to be much better known and its use extended. *Dalbergia latifolia*, the black wood or rose wood of Southern India, is a closely allied species to the Sissoo, and is equally well known and reputed as a valuable furniture wood. It is stated that wood of this tree sent to the London market in 1878 realised £13. 10s. per ton. Treated with oil, as it often is in India, the wood becomes almost black. The most

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elaborately carved Indian furniture is mostly made of this wood. *Dalbergia cultrata*, of Burma, and other species of Indian *Dalbergia* are all worth careful consideration and trial. (See No. 9, Plate 3.)

31. *Pterocarpus indicus*.—The red wood of the Andamans and Padouk of Burma. It is a lofty tree of the Andamans and Burma, and is found also in the Malay Islands, Philippines, and China. The beautiful dark red colour of this wood, together with the fact of its being a good wood both to season and work, and its capability of taking a splendid polish, are all strong recommendations for its extended use by English cabinet-makers. A plank sent to the Paris Exhibition of 1878 measured nearly 4 feet across. Some furniture made by a well-known English firm in the same year attracted a good deal of attention, the makers considering it suitable for all kinds of furniture. The red sanders, or red sandal wood of Southern India, the produce of an allied species (*Pterocarpus santalinus*), is, when freshly cut, of a blood-red colour, blackening, however, by age; but as this wood is valued as a dye, and as a medicine on account of its astringent properties, and, moreover, as it is a small tree, it would scarcely be obtainable in sufficient quantity or at a price suitable for cabinet purposes. The same may be said of *Pterocarpus marsupium*, which is a large tree of Central and Southern India, but valued for the red astringent colouring matter, known as kino, which is obtained by tapping the tree as it stands.

32. *Cassia siamea*.—This tree is the Beati of the Tamils, and is perhaps better known under the scientific name of *Cassia florida*. It is of moderate size, and grows in Southern India, Ceylon, Malay Peninsula, and Siam. The wood is of a very distinct character, dark brown, or nearly black, and exhibiting a very beautiful mottling. It is very hard and durable. In Burma it is used for mallets and walking sticks, and is probably worth some attention being given to it as a cabinet wood.

33. *Adenanthera pavonina*, commonly known as the Rakta-chandan, and sometimes as red sandal wood. It grows in India, Ceylon, Malay Islands, Philippines, and China. It has a hard, close grained, red coloured heart wood, used in Southern India for cabinet making and house building. A red dye is obtained from it. It is a wood that might be used for ordinary work.

34. *Acacia arabica*.—The Babool or Indian Gum Arabic tree. It is either a moderate-sized or large tree, according to locality, and is found cultivated or self-sown, throughout the greater part of India, as well as in Ceylon, Arabia, Egypt, tropical Africa, and Natal. The heart wood, when freshly cut, is of a pinkish white colour, turning to a reddish brown on exposure, and often mottled with dark streaks. It is hard and very durable, and is largely used in India, for all kinds of work, where strength and durability are

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required. It is, perhaps, rather too heavy for ordinary furniture, but might prove useful for the framework of dining and billiard tables. With a tree so widely distributed as this is in different parts of the tropics, there should be no difficulty in obtaining it should a demand arise. Useful woods might also be found amongst other species of Indian acacias, such, for instance, as *A. leucophlœa*, *A. ferruginea*, and others.

35. *Albizzia Lebbek*, commonly known by Europeans in India as the Siris tree. It grows to a large size in India, Ceylon, Burma, Malay Islands, China, North Australia, and tropical Africa. (See No. 10, Plate 4.) The wood of this and several other species of *Albizzia*, natives of India, are hard, dark brown, with darker coloured longitudinal streaks. It is largely used in India for a variety of purposes, amongst others for furniture, boats, oil mills, wheel work, &c. The woods of all the species of *Albizzia* are quite worth the attention of the cabinetmaker, all being similar to the above, of a rich brown colour, more or less streaked, taking a good polish and having a beautiful appearance when so finished. Amongst the most prominent species may be mentioned, *A. odoratissima*, *A. procera*, *A. lucida*, *A. Julibrissin*, *A. stipulata*, and *A. amara*.

36. *Prunus Puddum*.—The Paddam tree of the Hindoos, ranging from a tree of moderate size to one of large growth, and found in India and Burma. The heart wood is fairly hard, and is beautifully mottled, shining, and wavy, of a reddish colour. It has a fine appearance when polished, and though used occasionally in India for furniture, deserves to be known amongst English cabinet woods.

37. *Carallia integerrima*.—This small evergreen tree is known as Kierpa in Bengal. It is found in India, Ceylon, Malay Archipelago, China, and Australia. The heart wood is very durable, works well, and takes an excellent polish. It is of a bright reddish tint with fine cross markings, and is used both in India and Burma for furniture. Its distinct character should recommend it.

38. *Careya arborea*.—A large deciduous tree known as the Kumbi. It grows in many parts of India and Burma, and produces a moderately hard and very durable wood, which seasons well, works well, and polishes well. In some specimens, more particularly in the younger trees, the wood is of a dull red colour, but in the older trunks it becomes of a very rich dark claret, or crimson, and sometimes finely mottled. Some of the uses to which it is put in India and Burma are for furniture and various kinds of cabinet work, house posts, and gun stocks, but the wood has not received the attention it merits.

39. *Stephegyne parvifolia*.—A large tree found throughout India and Burma, and also in Ceylon. It is known as the Kaddam, and



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produces a lightish coloured wood, with a pinkish brown tint, moderately hard, easily worked, and durable, and takes a good polish. This wood has less colour than any that we have yet considered, and might be found useful for the lighter kinds of furniture. In India it is not only used for furniture and agricultural implements, but it is one of the woods that is largely used for turning and carving, and for platters, cups, spoons, combs, &c.

40. *Diospyros Kurzii*.—An evergreen tree of the Andaman Islands and Nicobars. It is a close botanical ally to the ebony and calamander woods of commerce, and the wood is somewhat similar in appearance to the latter, but is composed of black and greyish streaks rather than blotches, which is the case with calamander. It is indeed sufficiently distinct from the better known wood to recommend it for bold inlaying, or even for panels, and though it is but little used in its native country, it is certainly a wood that ought to be known to English commerce. The tree is said to be pretty common in the Andaman forests. Some choice examples of the wood are shown in the Kew Museums. The woods of some allied species of Indian *Diospyros*, besides that which yields the ebony, furnish wood with an ebony-like centre, such, for instance, as *D. melanoxydon*, *D. montana*, *D. cordifolia*, and others, all of which are worth a trial.

41. *Olea cuspidata*.—This is sometimes known as the Indian olive, but by the people of Scind, where the wood is much valued for making combs and for carving, it is known as Khan. It is a tree about 30 feet high, common in India and Beluchistan. The wood is smooth and even grained, extremely hard, and takes a splendid polish. In colour it ranges from a light to an olive brown, or, in some specimens, nearly black. The beautiful marking of this wood is similar to that of the European olive, but the whole tone of it is darker, and its character is therefore sufficiently distinct to recommend it for adaptation in England. (See No. 11, Plate 4.)

42. *Holarrhena antidysenterica*.—A small deciduous tree known as the Karra, and found throughout the forests of India, Travancore, and Malacca. The wood is white, soft, and even grained, and is much used by the natives for carving, and in Assam for furniture. (See No. 12, Plate 4.) Amongst other white woods of a similar character that are mostly used in India for carving platters, bowls, basins, and such like articles, are the Keor (*Wrightia tomentosa*) and the Dudhi (*W. tinctoria*). These three are the chief woods used in India for these purposes. The light colour and comparative ease with which all three of these woods are cut, would probably adapt them for inlaying.

43. *Morus indica*.—This is one of the Indian species of mulberry, and is known by the Hindoos as Tutri. It is a moderate-sized deciduous tree of India, Burma, China, and Japan. The wood is

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fairly hard, of a yellowish brown colour, with dark streaks, and bears some resemblance to that of the common white mulberry. This wood, together with that of *Morus serrata*, a tree of some 60 to 70 feet high, having, when polished, a beautiful golden lustre, would, no doubt, if it were better known, become a useful cabinet wood; and the same may be said of several species of *Artocarpus*, the woods of all of which are yellow, or yellowish brown, sometimes approaching to an orange colour, and have a rich appearance when polished. Of these trees we may mention the Bread fruit (*Artocarpus integrifolia*), the Lakuch (*A. lakoocha*), the Chaplash (*A. chaplasha*), the Ayni (*A. hirsuta*), &c.

We have devoted considerable space to this selection of about fifty Indian trees, because they fairly represent the types of suitable furniture woods to be found in our great Eastern forests, and because they have been carefully taken from amongst others, widely scattered over the whole range of the natural orders, which constitute the great vegetable kingdom. Upon actual trial many of the woods themselves may not prove so useful as we have anticipated, but they indicate spots on the great map of nature in the neighbourhood of which others may be found.

Next in importance to India amongst British possessions as a timber-producing country, both in extent and variety, we may place Australia, and it is to a few of the choicest woods of that country that we will next draw special attention. Foremost amongst Australian woods stand, of course, the numerous species of *Eucalyptus*, but though valuable as they are for a variety of uses their weight and density cause them to be quite unsuited for furniture, so we have to exclude them from any consideration in the present paper.

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1. *Zanthoxylum brachyacanthum*.—This is a tree some 40 or 50 feet high, of Northern New South Wales and Queensland, where it is known as satin wood. It is close grained, easily worked, of a bright yellow colour, with a soft satiny lustre. It is used for cabinet work, and is said to be superior to the satin wood of the English trade.

2. *Dysoxylum Fraserianum*.—The two most common names of this wood are rose wood and pencil cedar. The tree grows to a height of from 50 to 70 feet in Northern New South Wales and Queensland, and the wood is of a reddish colour, of good figure, works well, and takes a good polish. It is somewhat similar both in appearance and grain to mahogany, for which, indeed, it has been suggested as a substitute, if it could be brought into the market and sold at a reasonable price. In Australia it is a favourite furniture, cabinet, and turning wood.

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3. *Flindersia australis*.—This is known as the Australian ash, or beech, and is a tree growing to a height of 80 to 100 feet, found in Northern New South Wales and Queensland. The wood is hard, close grained, and of great strength and durability, has an orange brown tint, and takes an excellent polish. (See No. 13, Plate 5.) An allied species (*F. Oxleyana*) known as the light yellow wood, a tree of similar height to the last, and found in the same districts, produces a wood of a fine even grain, often of a pretty yellow colour, which should recommend it, as there are so few woods having this tint naturally. In Australia it is used both for cabinet work and for boat building.

4. *Alphitonia excelsa*.—A tree 45 to 50 feet high, known as the mountain ash, red ash, or leather jacket, and found in New South Wales, Queensland, and Northern Australia. It has a hard, close grained, and durable wood of a bright red colour, darkening, however, with age. In some samples the wood passes from a dark brown to pink, and in others the colours are blended.

5. *Harpullia pendula*.—This is the tulip wood of New South Wales, and grows to a height of from 50 to 60 feet in Northern New South Wales and Queensland. The wood is close grained, firm, and hard, and is most beautifully marked with irregular, longitudinal streaks of black and yellow. It is one of the most striking woods of Australia, and is consequently much esteemed by the colonial cabinet-makers, and should be known in this country.

6. *Rhus rhodanthema*.—Known as the dark yellow wood, or yellow cedar. It grows in Northern New South Wales and Queensland, attaining a height of from 60 to 70 feet. The wood is soft, fine grained, easily worked, sound and durable, has a brownish or yellowish bronze colour, with a fine silky lustre, somewhat darkening by age, but losing none of its beauty. It is classified as one of the handsomest of Australian timbers, and is much used in the colony for cabinet work.

7. *Castanospermum australe*.—This is a fine tree of Northern New South Wales and Queensland, growing to a height of 80 to 90 feet, and known as the bean tree, or Moreton Bay chestnut, from the fact that the seeds are large, about the size of a chestnut, and are eaten in a similar way. The wood is soft, fine grained, and marked with beautiful dark, cloudy lines, which strongly recommends it as a cabinet wood. This wood was one of those submitted to a series of trials at the time of the Colonial and Indian Exhibition, and the report upon it was as follows:—

A beautifully figured, brown wood. The sample sent being very wet was tried under somewhat unfavourable circumstances. A baluster was turned from it, and some boards and panels planed, the work from both lathe and planing machine being excellent. The wood should prove valuable for cabinet makers, but should be thoroughly seasoned before being used, as it shrinks very much in drying. (See No. 14, Plate 5.)

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8. *Acacia acuminata*.—A tree some 30 or 40 feet high, native of Western Australia. It is sometimes known as Myall, though it is not the true Myall as known in England, for the manufacture of pipes. The dark, rich reddish brown colour of the wood, and the scent, which is compared to that of fresh raspberries, together with its close and compact grain, are recommendations for its application in cabinet work. Mr. Ransome, in his report in 1886, remarked that this wood ought to find a ready sale in England for ornamental work. A large number of species of *Acacia* grow in Australia, indeed, it may be said that it is the headquarters of these plants. The true Myall is obtained from two species, *A. pendula* and *A. homalophylla*, whilst amongst others to which attention should be given may be mentioned *A. Cunninghami*, the bastard Myall; *A. glaucescens*, the Brigalow; and *A. melanoxydon*, the black wood. This last is a very beautiful and valuable wood, presenting a most varied character in different trees, and being suitable for almost every purpose of cabinet and carpentry work.

9. *Olearia argophylla*.—The musk wood of Tasmania, Victoria, and New South Wales, where it grows to a height of from 20 to 30 feet. We quote the following description of this beautiful wood from a colonial authority:—

This timber has a pleasant fragrance and a beautifully mottled appearance, well adapted for turning, cabinet work, and perfumery purposes. It works well, and may be had in any quantity, and in slabs of from 18 to 36 inches diameter. The wood of the gnarled butt and roots of the tree are beautifully mottled, and consequently much prized. (See No. 15, Plate 5.)

10. *Bedfordia salicina*.—A tree about 30 feet high, native of Tasmania, Victoria, and New South Wales. It is the dog wood of Tasmania, and the cotton wood of New South Wales. The wood is hard, of a pale, greyish brown colour, and very prettily mottled. Its appearance is sufficient to recommend it for furniture, but it is said to be very difficult to season, and, moreover, it emits a fœtid smell when freshly cut.

11. *Grevillea robusta*.—This is one of the trees known in the colony by the name of silky oak. It is found both in New South Wales and Queensland, and grows to a height of from 70 to 80 feet. The wood is moderately hard, and works well. It is of a lightish grey colour, with silvery cross wavy markings, due to the large development of the medullary rays. When polished the satiny sheen is well brought out. The absence of any dark colour in the wood causes it to possess a delicate lustre which would befit it for choice boudoir or bedroom furniture. It is stated that in consequence of the wood being much used in Australia for the staves of tallow

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casks it is becoming scarce, but the tree has been proved to grow well in Ceylon, where it has been introduced, so that it is capable of extended cultivation, besides which it resists drought in a remarkable degree. (See No. 16, Plate 6.)

12. *Stenocarpus salignus*.—This tree is a close botanical ally to the last named, and, like it, is known in Australia by the common name of silky oak, in addition to which it is sometimes called silvery oak and beef wood. It ranges from 30 to 50 feet high, and is found in New South Wales and in Queensland. The marking of the wood is very like that of *Grevillea robusta*, but the colour being of a deep red, it is altogether of a more striking appearance. It is a favourite wood in Australia for furniture, picture frames, and walking sticks. In the Jurors' Reports of the International Exhibition of 1862 it is referred to as "altogether one of the most beautiful woods in the Exhibition, and of the highest merit."

13. *Banksia integrifolia*.—One of the trees known as the Australian honeysuckle, growing in Victoria, New South Wales, and Queensland, and attaining a height of from 20 to 30 feet. The wood is mottled in the same way as the two preceding, belonging as it does to the same natural order. It is moderately hard, of a pinkish colour, and very suitable for furniture or fancy work. It is said to be perishable when exposed to atmospheric influences, but otherwise durable. *Banksia serrata*, also known as honeysuckle, has a similar wood, but more of a purplish mahogany colour, and quite worth a careful trial as a cabinet wood.

14. *Xylomelum pyriforme*, known as the native or wooden pear, in allusion to the hard woody pear-shaped fruit, is a tree of New South Wales, growing from 20 to 40 feet high, producing a dark coloured and beautifully marked wood of a similar character to the last three, but deeper in colour. Like those just mentioned, it is much valued for ornamental cabinet work in Australia.

15. *Casuarina stricta*.—A tree some 20 to 30 feet high, found in all the Australian colonies except Western Australia and Queensland. It is known as shingle oak or coast she oak, and produces a very tough and hard wood, of a reddish colour and a fine mottled surface, caused by the broad medullary plates forming dark bands. When polished these have a very fine effect, and the wood has an extremely handsome appearance. Its weight and hardness, however, may tell against its general use as a furniture wood, though it is well worth a careful trial, and at most might be used for veneers. Several other species of *Casuarina* are found in Australia, and many of them might prove useful, such as *C. suberosa*, *C. torulosa*, and others which are generally known as swamp oaks or shingle oaks.

16. *Fagus Cunninghamii*.—This tree, though it is a close ally to the common English beech, is known in Tasmania as myrtle. It is

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a magnificent tree, sometimes attaining 200 feet in height, but averaging about 100 feet. It grows both in Tasmania and Victoria. "The wood is prized for sash and door work, and, indeed, for all kinds of light joinery. It is a hard, richly coloured furniture wood, and the warty protuberances on the trunk of the tree afford a most beautiful figure, as do slabs, which may be procured 6 feet long in almost any quantity. It is used for the cogs of wheels by mill-wrights." Some very beautiful examples of this wood are shown in the Kew Museum, and it is surprising that it has not already become an article of commerce with us. (*See No. 17, Plate 6.*)

17. *Dacrydium Franklinii*.—This is another of Tasmania's most beautiful woods. It is the produce of a tree belonging to the coniferæ or pine family, and is found only in Tasmania, where it grows usually to a height of from 60 to 80 feet, but sometimes attains to 100 feet, and is known as Huon pine. The wood is light but tough, and extremely durable, in consequence of which it is much in demand for boat building and house fittings. As a proof of the durability of the timber, it is stated that fallen trees have been known to lie in the damp forests for many years without rotting. The colour of the wood is a pale yellow, and in the knots and burrs the character of the figuring is so peculiar and distinct from any other wood, that it is difficult to describe. The small eyes or knots, partake somewhat of the character of bird's-eye maple, but they are darker and more defined, surrounded by a wavy satiny lustre, which, under the effects of polish, produce in each one a different degree of light and shade, changing upon every position of reflected light. The wood, indeed, may be said to be without a rival. Many years ago it attracted considerable attention at a meeting of the Society of Arts, the result of which was that many wood grainers attempted to imitate it, but the changeful effect of light was beyond their powers, and the interest dropped after the very fine examples in the Kew Museum had been visited and examined by many practical men. We believe that in consequence of the great demand for the wood in the colony the tree is becoming scarce, and the wood is therefore fetching high prices. It should be carefully planted and extended, not only into the other Australian colonies, but also in other countries where it is likely to flourish.

Space will not allow us to point out any further individual examples of the forest treasures of Australia. We have not included in our review any examples from New Zealand, though there are many to which we might allude, such, for instance, as mottled and wavy Kauri (*Agathis* or *Dammara australis*), a variety of wood that we sometimes do see in England, but which is not so well known as it ought to be. The Totara, again (*Podocarpus totara*),

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is a wood well worth attention. In a "Report on the Durability of New Zealand Timbers," in 1875, Mr. Kirk says, writing of the Rewa Rewa (*Knightia excelsa*):—

That although nearly valueless at present, it might be advantageously exported if sawn into planks from 3 to 6 inches in thickness, and dried in airy sheds. From its liability to become "foxy" it would be useless to ship it unseasoned, as it would become worthless during the voyage. I am convinced that if once fairly established in the London market the demand would speedily exceed the supply, so that good prices would be realised. At present thousands of trees are destroyed yearly with the progress of clearing, so that its utilisation in any way would be of great advantage, as it is a timber, even when dry, of difficult combustion. It might be advantageously used for certain special purposes irrespective of its beauty.

These remarks were written eighteen years ago, and what was said then practically applies to the present time.

Turning next to our South African possessions, we find both at the Cape and in Natal a flora rich in timber-yielding plants, and though the trees as a rule do not grow to the majestic proportions of those of Australia, or even India, and consequently, would not supply timber of equal diameter or bulk, we nevertheless find a number of valuable trees, producing hard, even grained, and durable woods, and not a few of which possess sufficient colour or figure to recommend them for cabinet or furniture making. It must be confessed that there is not the variety in the South African forests that we find in those of the colonies we have already considered, from which to make such a varied choice. The bulk of the timbers are perhaps more suited for building than for cabinet purposes. Again, in two colonies so comparatively close as the Cape and Natal, we might expect to find, as is the case, many of the same kinds of trees growing in both. A few references to suitable Cape woods will suffice to show that the forests of these colonies are quite of sufficient interest to warrant an examination and trial of their resources, with the view of future development.

## CAPE WOODS.

1. *Ekebergia capensis*.—This is known as the Essenboom, or Cape ash. It is a tree 20 to 30 feet high, producing a strong, close grained, and durable wood, of a light yellow colour. In the colony it is used for furniture and wagon work, for which it is much valued.

2. *Elæodendron croceum*.—The saffron wood of the colonists. It is a tree averaging from 20 to 40 feet or even 60 feet high. The wood is of a yellowish pinkish colour, very fine grained and delicately striped, hard, close, and tough; used for cabinet work, beams, planks, wagons, and agricultural implements. The bark is valued for tanning and dyeing.

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3. *Hartogia capensis*.—A small tree, seldom exceeding 16 feet high, with a hard, fine grained, close, tough wood. It takes an excellent polish, and has an appearance equal to the finest mahogany, but generally of a lighter colour. It is well adapted for all kinds of superior cabinet work, as well as for turning and building purposes. It is known at the Cape as ladle wood.

4. *Pterozylon utile*.—This is the sneeze wood of South Africa, and is ranked amongst the most important and valuable woods of the country. In point of durability it is said to rank with greenheart and jarrah. The following extract from a paper on "Cape Woods and Forests," by A. W. Heywood, of the Cape Forest Department, published in connection with the Colonial and Indian Exhibition of 1886, is given as a proof of the durability of this wood. The writer says:—

The heart wood of sneeze wood is regarded as imperishable for fencing posts. It is not attacked by the white ant, and posts put in by the earliest colonists are sound to the present day. Unfortunately, the supply of wood is now very limited. Its extirpation was imminent when the forests were taken over for management, and felling is now prohibited in Government reserves. Natural re-growth is everywhere abundant, and with careful conservation much may be done towards the restoration of sneeze wood to the economic uses it is so eminently suited to fulfil.

The wood is often very beautifully marked with cross undulating wavings, giving it a very handsome appearance. The tree grows to a height of from 20 to 30 feet. It derives its name of sneeze wood from the fact of its producing violent sneezing when sawn or worked. (See No. 18, Plate 6.)

5. *Rhus Thunbergii*.—This is a small tree, from 15 to 20 feet high, known as the rock ash. It has a yellowish, hard, close grained wood, with a satiny wavy lustre, much valued for fancy cabinet work, fancy furniture, and musical instruments.

6. *Cunonia capensis*, known as red cedar. A large tree, ranging from 20 to 60 feet. The wood is of a rich reddish brown colour, hard and tough, taking an excellent polish, and forming a very handsome furniture wood.

7. *Platylophus trifolius*, the white alder of the colonists, is a tree 30 to 40 feet high, producing a light coloured hard and tough wood, the roots and knots being very finely marked. The wood is in request for ordinary furniture and for making boxes.

8. *Olinia cymosa*.—This is a plant of varying height, averaging about 16 feet, but sometimes growing up to a height of 30 feet. The wood is of a light greyish colour, very compact, and heavy, hard, and tough. It is much used in the colony for general fancy work, musical instruments, as well as for wagon and cart work.



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9. *Olea laurifolia*.—This is a straight growing tree, from 40 to 70 feet high, known as the black iron wood. The sap wood is white, and the heart wood almost black, streaked with darker wavy markings similar to common olive, but much blacker. It is very hard and somewhat heavy, but, nevertheless, is an excellent furniture wood. (See No. 19, Plate 7.)

10. *Ocotea* or *Oreodaphne bullata*, a tree growing 50 to 60 feet high, and having a diameter of from 4 to 5 feet. It is known as stink wood or laurel wood, the first name being given to it from the fact of its emitting a most disagreeable odour when freshly cut. Stink wood has little or no sap wood. The wood is very highly prized, being little inferior if not equal to teak in strength and durability. It is used in the colony for nearly every kind of cabinet work, wagon and house building. It takes an excellent polish, and the dark rich colour has much to recommend it in comparison to walnut.

11. *Protea grandiflora*.—This is only a shrub of some 6 or 8 feet high, but the wood is of such a beautiful deep red colour, marked with a cross, or reticulated grain of a light silvery grey, which imparts to it a lace-like appearance, that it would be very valuable for small articles of furniture, and for inlaying. The tree is known as the wagon tree.

12. *Podocarpus latifolius*.—This is a very tall tree, perhaps the tallest in the colony, growing up to 70 feet or more. It is known as the upright yellow wood to distinguish it from an allied species designated Outeniqua yellow wood, which, however, runs the other very close with regard to height. The woods are very difficult to distinguish one from the other, both are of a pale yellow colour, close and even grained, and both are highly valued for a variety of uses. Besides the quality of the wood itself, the great length and diameter of the planks that can be cut from the enormous trunks, are points which recommend it. The cleanness with which the wood cuts, and the high polish it takes, are also recommendations for its use as a light coloured furniture wood. The furniture made from it and exhibited in the Cape Court of the Colonial and Indian Exhibition in 1886 attracted a good deal of attention.

These few examples of Cape woods may be taken as typical of what the forests are capable of producing, and, under the system of forest preservation inaugurated in 1880, it is satisfactory to be able to look forward to the yield of the forests being increased rather than diminished. The gloomy outlook of the Cape forests previous to the period above referred to is thus described in Mr. Heywood's paper already mentioned. He says:—

The management and working of the Cape forests was of a very unsystematic and thriftless character. Fellings were not confined to limited areas or sections, wood cutters were allowed to pick and choose their trees indiscriminately

## FURNITURE WOODS, WITH SUGGESTIONS

throughout the forests, and to pay only for the wood actually removed. The consequence of such a method was that only the choicest trees were felled, and their rejected portions left to cumber the ground. It has been estimated that by working on this system nearly thirty cubic feet of wood were wasted for every one utilised and paid for. Natural reproduction was thus severely handicapped; many forests disappeared altogether, and those which now remain, and are at all accessible, have been impoverished to the last degree. In 1880 the question of forest management was brought before Parliament. It was pointed out that the officers in charge had received no special training for the work, which had in consequence suffered severely, and the salary of a trained forest officer was voted by the Legislature. The Crown agents in London were consulted, and, with the assistance of Colonel Pearson, then at Nancy, the services of Count de Vasselot de Régné, of the French Forest Department, were secured. This officer arrived in Cape Town early in 1881, and, as superintendent of woods and forests, undertook the organisation of the present forest department. In 1883, by the courtesy of the Indian Government, the services of Mr. Hutchins, deputy conservator of forests, were made temporarily available to the colony.

Such is the brief history of the establishment of the forest department at the Cape, an establishment of comparatively recent date, but one that has already done good work, and the results of which will be felt quite as much, or more, in the future in providing material for the use of generations to come, not only amongst the colonists themselves, but also amongst those of their own countrymen, who may wish to extend their commercial relations in the commodities they have to offer.

These notes would be very imperfect without a sketch of the nature of the wood produce of our West Indian possessions. We have only incidentally alluded to those of British Guiana and British Honduras, but in like manner, as we were compelled to omit Ceylon when treating of Indian woods, in consequence of its nearness to the great Continent of India and the similarity, to a certain extent, of its timber produce, notwithstanding that Ceylon is extremely rich in choice cabinet woods, we must omit anything more than a mere glance of one island, as an indication of what may be found in most of the others, and we take Trinidad as the example, because more has been done in this island in the actual and careful development of its timber resources than in any other. At the several International Exhibitions the collections of woods from Trinidad have always stood out prominently, not only in the variety and number of specimens shown, but also in the size of the slabs and the care exercised in their selection. This was particularly the case in the collection brought together at the Colonial and Indian Exhibition in 1886, which collection is now contained in the Kew Museum. The following is a selection made from these woods:—

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## TRINIDAD WOODS.

1. *Calophyllum Calaba*.—This is called the Galba or Palo Maria tree. It grows to a large size, and the wood, which is of a pale reddish tint, beautifully marked by light wavy lines, is considered one of the best woods of the country. It is strong and durable in all situations. (See No. 20, Plate 7.)

2. *Byrsonima spicata*.—The Surette, or shoemakers' bark tree, in consequence of the bark being an article of export to England for tanning purposes. The tree grows to a height of from 30 to 40 feet, and is found also in St. Lucia, Dominica, and in Brazil. Its wood is of a dark brownish red colour, strong and durable in dry situations, but apt to decay when exposed to the weather.

3. *Trichilia trinitensis*.—A small tree of Trinidad and Guiana. It has a close and even grained wood of a dark colour, and is known as Naranjillo Blanco.

4. *Cassia spectabilis*.—It is the Casse of Trinidad, and is widely spread in the West Indies and South America, growing to a height of from 20 to 30 feet. The wood is of a dark or blackish tint, with darker stripes, and is strong and durable.

5. *Hymenæa Courbaril*.—An enormous tree, known as the Locust, often growing to a height of 80 feet before branching, and forming a diameter of from 8 to 9 feet. The wood is of a fine brown colour, streaked with reddish veins. It takes a beautiful polish, is hard, close grained, and compact, and as it is not liable to split or warp, is much in demand, especially in British Guiana, where it perhaps attains its greatest size, for mill timber, engine work, ships—planks, &c. The wood is not altogether unknown in this country. A quantity of resin is often exuded from the trunk which gets buried in the ground, and lying there for some time becomes partially fossilised, and when dug up is cleaned and used like anime for varnish making. (See No. 21, Plate 7.)

6. *Pentaclethra filamentosa*.—A tree 30 to 40 feet high, known in Trinidad as the Bois Mulatre. The wood is of a dark colour, even grained, and said to be very durable, especially in damp situations.

7. *Lecythis Idatimon*.—This is a large tree, known in Trinidad as Guatecare; it is found also in Guiana. The wood is of a yellowish colour, strong, and very durable, and much valued in the colony for building and other purposes. This wood may perhaps be found too coarse in the grain for the general run of cabinet work, but we have seen samples quite suitable for many kinds of furniture.

8. *Citharexylum quadrangulare*.—A fine tree growing to a height of from 20 to 60 feet, found in the other islands of the West Indies, as well as in Guiana. It produces a very compact and even grained

wood, of a lightish brown colour. It is very strong, and is much valued in the West Indies as a building wood. It is known as fiddle wood, a name corrupted from *Bois fidèle*.

9. *Vitex capitata*, known as the Bois Lezard. It is a timber tree of Trinidad, Guiana, and Equatorial Brazil, and produces a strong, durable, and very valuable wood.

10. *Chlorophora tinctoria*.—A large tree capable of furnishing planks 20 feet long and 12 or 15 inches wide. The wood is close grained, light in weight, of an orange yellow colour, easily worked, and capable of taking an excellent polish. It is used by wheelwrights, and, to some extent, for furniture; but its bright colour should cause it to be better known.

Amongst the timbers of Trinidad and British Guiana are to be found some of the most distinct in point of colouring of any known woods—woods which may be said to possess a self colour, that is, an uniform colouring throughout without streaks, light, shade, or markings of any kind. Two of the most striking instances of this description of wood are to be found in the purple hearts of the West Indies, Guiana, Central America, and North Brazil, over which countries the species of *Copaifera*, which produce these woods, flourish, and also in a wood known as “Ducaliballi,” the produce of a tree described as growing to a height of 50 feet or more, in British Guiana, but the scientific name of which has not yet been discovered. In the purple hearts, as the name implies, the wood, which is close and even grained, is of a rich uniform purple colour, and when freshly cut and polished it has a remarkably rich effect; unfortunately, however, the colour is not permanent, for after a comparatively short exposure, the wood blackens, and loses all the character for which it is valued in its fresh condition, requiring to be newly scraped to bring up the colour again, a manifest drawback for a furniture wood. This is not the case with the wood of the Ducaliballi, which is of a deep red colour which it retains with very little change for a long period. The wood is, moreover, close grained, compact, and susceptible of a high polish, so that with all these recommendations it is much in demand in the colony for cabinet and turning work.

Throughout these pages we have dwelt almost exclusively on the wood produce of India and the British colonies, but from time to time Englishmen plant their feet on new soil, and by making it their future home and annexing it for commercial purposes open up fresh sources of produce. In new countries thus opened up, it is usual to clear off forest growth, for the purpose of forming plantations for the cultivation of some well-known economic plant; but care should always be had of existing arboreal vegetation, not only for purposes of shade and for preserving the proper amount of rainfall, but also

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for preserving the timber supply. In these new countries it not unfrequently happens that new products are discovered, and woods fresh to commerce may be, and indeed have been, amongst those brought to light. A recent instance of this kind in connection with the opening up of tropical Africa, is the development of the trade in the so-called African mahogany, a wood that has been known to botanists for a considerable time as the product of a tropical African tree closely allied to the true mahogany, and described as *Khaya senegalensis*. This wood has been brought more prominently to notice during the past year or two, and its mahogany-like character will no doubt recommend it for general use with us. In British North Borneo, again, where much has been done of late years to develop the natural resources of the country, as well as to prove its adaptability for new cultures, the timber yield has been well pushed to the fore, so that some of the best woods of the country are now known in English trade.

As these remarks are being written, the opening of the Imperial Institute at South Kensington has become an accomplished fact, and we briefly take the opportunity of referring our readers to the study of the woods in the Colonial Courts of the building. The screens dividing these courts from each other are made entirely of the woods of each colony, and are apt illustrations of their adaptability for cabinet and joinery purposes. We commend them to all who are in any way interested in the subject of this paper.

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## THE UNIVERSITY AND THE PEOPLE; AND THE UNIVERSITY OF THE FUTURE.

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BY PROFESSOR S. S. LAURIE.

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THE subject on which I have been asked to write is a novel one. The universities of the past and present have, during the last seven or eight years, received more wide-spread attention from writers of monographs and of larger histories than at any previous time, but the "relation of the university to the people and the university of the future" have not engaged the attention of any, so far as I know.\* Not many years ago I printed a book which dealt largely with the rise and constitution of universities, and had to form my own judgments and draw my own conclusions from restricted, and often contradictory, materials. The authority of the great writers of the past—Wood, Bulaeus, Crevier, Meiners—from whom all the minor writers had borrowed was generally questioned, and in the case of Paris an attempt was being made by Denifle to reverse the view taken by his predecessors. The most important book in English was by Bass Mullinger on the University of Cambridge, and the learned author himself, were he to issue a new edition, would doubtless seize the opportunity to revise and amend some of his opinions. Nor even now, spite of the researches of Kauffmann, have we the materials for a complete and critical narrative, although a good history might now be written with one-tenth the labour which would have been required ten years ago. We must await the completion of the various monographs on particular universities before we can take a final historical survey of the whole field, and exhibit the university life of Europe in its relation to the ever-changing aspects of thought and political life since the twelfth century.

At the same time the leading historical outlines have for some time been clear enough, it seems to me; sufficiently so, at least, to enable us to understand the purpose of the higher institutions of learning and to forecast their function in the future.

But if we are to do this and to convey to the reader anything but a mass of uninterpreted facts, we must find a point of view which

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\* Since this was in type a survey of the historical relations of English universities has been published by Professor Jebb.

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will also be a point of departure. We must go back to the pre-Christian world, and find there the beginnings of our modern academic life. The reader must not be impatient of apparently remote events if he desires to understand the universities of the present day, still less if he would form an intelligent conception of the aims of the "university of the future."

We may say, generally, that the chief purpose of the higher academic institutions was always KNOWLEDGE. This knowledge, however, had always for its aim a practical purpose—the explanation of man's life and destiny with a view to the settlement of questions which bore on the conduct of life.

Three nations have moulded the life of modern Europe—Palestine, Greece, and Rome. As soon as these nations had settled down to civilised life and had leisure to "look before and after," there gradually grew up among them groups of men who devoted themselves to investigation and thought. In every nation of the past, the mass of men were too deeply engrossed in industrial work and in the duties of government and war to find time to do more than acquiesce blindly in the theory of life which they had inherited from their ancestors, and which was embodied in their customs, religion, and laws. Only a few could give themselves to thought with a view to knowledge and the criticism of custom. So it is now, and so it will ever be. And if we are to continue to advance in knowledge of nature and man, and in a true comprehension of the significance of human life, the growing pressure of industrial competition and the clamant demands of each exacting day make it more than ever necessary that institutions should exist in which a few men may be set apart to maintain the connection of the present with the past, and to advance the knowledge of mankind for the benefit of their fellow men and of future generations. It is true that men so set apart are apt to forget mankind in their devotion to their subjects, and prosecute their studies with little thought of their practical bearing; but none the less, perhaps all the more, are they the leaders of thought and the benefactors of their race. The printing press disseminates their results, and all can now share in the fruits of their labour. The love of knowledge is in man inextinguishable, and the attainments of one generation are but the starting point for new enterprises of discovery.

Accordingly, were it the fact that knowledge for the sake of knowledge engaged exclusively the universities of Europe and America, it would still be necessary to maintain them in the interests of humanity at large. But they do not exist for this purpose alone, but for teaching what is known to all who frequent their halls, for preparing the next generation of investigators, and for

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training to the various professions which minister to our daily wants. The clergyman, the physician, the lawyer, the teacher, the engineer, and the agriculturist can (speaking generally) find in universities alone the knowledge bearing on their respective fields of social activity, ready organised and fashioned for their use. Every man, however humble, who benefits by the law of his country, whose diseases are diagnosed and alleviated, whose children are instructed, and to whom the teachings and consolations of religion are offered, is a debtor to universities. And it is scarcely necessary to point to the close connection of the higher mathematics and physics with engineering, railways, telegraphs, steamships, &c., &c., and of chemistry with innumerable industrial arts, to satisfy even the most exacting that to universities are due not only the thought which elevates the mind of man and lifts him to a higher plane of existence, but that exact knowledge which makes his life more tolerable while it lasts and promotes further advances in the conquest of nature and in the equitable adjustment of social relations. It is true that in modern times much of the function of universities is discharged with surpassing ability by the agency of those living outside them by means of the printing press; but the majority, if not indeed all, these active agents in civilisation ultimately owe their knowledge and inspiration to the work of men who live alone for abstract knowledge, and who are chiefly to be found now, as in the past, within academic walls working in accordance with academic methods. It will be apparent, then, that universities which at first sight seem remote from the life of the ordinary citizen are in truth closely connected with that life, existing, as they do, not merely for knowledge but for the dissemination of knowledge, which is thus made the possession of all. No institution, accordingly, is so essentially democratic in its aims, for none is so universal in the benefits it confers, irrespectively of race, religion, or social position.

It will be apparent that I am using the word "university" to include all schools of higher learning set apart for young men and women above seventeen years of age, the aim of which is at once scientific and practical—that is to say, which exist to prosecute departments of human inquiry and to teach what is ascertained to others. By these tests we may always safely try the higher university schools of the past and the present. If they fail to identify themselves with the advancement of learning, but confine themselves to the teaching and training of the youth of the country with a view to the professions, they discharge only partially the function of universities; they are merely advanced secondary schools. If, again, they aim at knowledge for its own sake alone they become semi-monastic institutions, and are divorced from the life of the



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nation : if, further, they take up only one part of the encyclopædia they become departmental colleges and divorce themselves from the great name of university.

These remarks are naturally suggested by our reference to the sources of our modern academic life—Palestine, Greece, and Rome. In Palestine we find the higher intellectual life of the Hebrews in the “schools of the prophets,” out of whom came the great men who formed the religious and moral conceptions of the Jewish race. These men of genius gave us the Old Testament, in so far as it is a book for the whole world and not merely for a Semitic tribe. These men desired to *know*, but the supreme object of their knowledge was God and the relation of men to Him. Consequently they were great spiritual teachers, not only to the Jews, but to all mankind.

In Greece, we find that the thought of that wonderful race, concentrated chiefly at Athens, did not restrict itself to the idea of God, for which indeed it substituted Art, but sought knowledge in every direction impartially and with an open eye, giving to Europe its philosophy and the elements of the sciences, as well as a pure and noble literature which in the interests of the humblest modern citizen must ever be conserved and studied anew.

In Rome, again, we find a practical spirit. The Romans took up Greek thought and speculation, and tried to correlate it with the practical life of man. In so far as they speculated at all, they followed the Greeks; in so far as they were original, their higher schools gave prominence to law and oratory—the one to regulate social life and the administration of the State, the other to influence opinion and direct current politics and public policy.

If now we leap forward over a space of 2,000 years to the present day we find that a fully-equipped university comprehends these three great national aims—knowledge of God and His relations to man and the world; knowledge pursued in the Hellenic spirit, wide and impartial, including philosophy, literature, science; and jurisprudence and politics pursued after the Roman manner. To these has been added, in the course of the centuries, and as necessary outcome of the primary ideas, the scientific study of medicine, of history, philology, engineering, agriculture, and education, some of these more obtrusively “practical” in the ordinary sense of that word than the others, but all claiming a place in our higher institutions of learning, in so far as they rest on abstract knowledge and can be handled *scientifically*. To constitute a modern ideal university accordingly, which is at the same time to be the university of the future, we have to take all that was valuable

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in the higher teaching of antiquity, and to extend our investigations on every side in accordance with the spirit and needs of the time we live in. The ancient nations, it is true, had no institutions called "universities," nor any higher institution with this encyclopædic aim, but they had the reality without the name, each in its own special line of national genius. To the Greeks, for example, we owe scientific medicine and our medical faculties; but, except at Alexandria, medicine was not included in the philosophical and rhetorical schools, which were the true universities of Greece, and subsequently of Rome. And yet, by a succession of distinguished men, medicine, closely bound up with the study of nature, was taught to willing disciples; and when, after a lapse of time, modern Europe began to rise out of the ruins of the Roman Empire, it at once took its place as a leading subject.

About 2,000 years ago there occurred a great breach in the intellectual continuity of the race. Let us consider this for a moment: with the exception of Palestine, the religious faiths of the ancient world were going to pieces when Christ appeared, and the higher schools of thought were themselves fast degenerating into arenas for speculative disputations or into rhetorical forcing-houses. They had worn themselves out. The earnest pursuit of truth for truth's sake was represented only by a man of genius here and there. The more earnest minds, which had thrown off the superstitions by which their ancestors had lived, were clinging with unconcealed despair to some scheme of philosophy which seemed to offer them the only solution of man's life and duty in this transitory existence. The teaching of Christ now intervened, with its direct bearing on human life in all its relations. The divine enthusiasm which it inspired in its converts, began to remould the civilised world, and even before the recognition of Christianity by the Emperor Constantine, towards the end of the fourth century, its doctrines had engaged the attention of almost all the ablest minds. It is, however, an error to suppose that the new religion undermined the university schools of Athens, Alexandria, and Rome. They were already tottering to their fall, when the new spiritual movement gave them their *coup de grâce*. Had Christianity, indeed, assumed a purely negative attitude to the Romano-Hellenic life and culture, and done no more, it would have to be classed among the destructive powers of barbarism. But it had its positive side; it had in it a power to build up as well as to throw down. It introduced more than one new idea into the life of our race. It broadened and deepened the sentiment of the common brotherhood of man by giving to human sympathy and love a divine sanction. Most

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important of all, it fortified the sense of personality. The individual was now not only a free, thinking spirit which had its personal life and personal rights, but this self-conscious spirit, the true person of each individual, was now seen to be rooted in God—to be of infinite importance “even in His eyes.” Thus, by one stroke, as it were, the personality of each man was deepened, nay, consecrated, while at the same time his bond of sympathy with all other human beings, as children of the same Father, was strengthened. Two opposite results were thus attained; and these two were conciliated. For the deepening of man’s spiritual, personal life meant in truth the life with God, and it was in and through this life that his personality became a matter of infinite worth. This rooting of the finite subject in the eternal and universal Reason, while giving infinite worth to the soul of each man, at the same time made impossible that insolence of individualism and self-assertion which had characterised the subjective movement among the Greeks. Man became as a personality, much greater than the most exalted Stoic could have conceived; but by the very same act he was taught humility, dependence, humanity, love. Education had now to be reconstructed from this foundation.

As may be easily understood, that part of the new doctrine which taught that man lived for a hereafter, and that this life was a preparation for that hereafter, first told on the educational efforts of the time. The leaders of the new Evangel directed themselves chiefly to catechising and instructing with a view to a city not of this world; and they did so in expectation of the early dissolution of all things. They also began to prepare ministers of Christian doctrine; for the people had to be instructed in the new philosophy of life, and temple services had to be conducted. There was great moral activity and a wide comprehensiveness in the new “sect;” and so far as education was concerned, it might fairly be said that every Christian assemblage where the gospels were read, prayers offered, and hymns sung, was a people’s school. To discharge this religious duty and to train its ministers was as much as the infant community could be expected to do. This it did in the catechetical and, afterwards, in the episcopal schools;\* and thus a fresh beginning was made for the education of the human race.

The rise of Christianity and Christian education, and the irruption of the Teutonic races from the North into the fruitful fields of Southern Europe, finally dissolved ancient society, and swept away the very memory of Hellenic genius. Even in the East, where nations were held together by Byzantine dynasties governing from Constantinople, it was the settlement of Christian doctrine that now exclusively

\* These schools, as distinct from pagan institutions, date from the close of the second century.

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engaged the minds of men, and, save in the department of jurisprudence and medicine (at Alexandria), the Hellenic and Roman conceptions of man and nature had vanished for ever. But even in the defining and developing of Christian dogma which had been going on side by side with the decay of ancient learning, there were no great minds engaged after the death of St. Augustine (395 A.D.); and for 600 or 700 years after his death, the higher education as it had been understood at the great ancient seats of learning was practically non-existent. Ancient books and traditions, however, were fortunately preserved in the monasteries, and such learning as existed was to be found in these secluded religious communities.

If we are to understand modern Europe, we must at this point of history turn our back on the disintegrating past and fix our eyes on the new constructive forces which were already beginning in the fourth and fifth centuries to mould the Europe of the future. These forces were essentially ethical in their character, as indeed are all the forces which ultimately determine and explain the history of nations. On the one hand, the Christian scheme of a philosophy of life, and on the other hand, the civil and the civilising law of Rome were the great living operative institutions. It was a grand conception, this new conception of a Church. Men organised not merely as political societies, but as a one all-embracing spiritual society—a community of souls whose ethical life and immortal destiny were the supreme concern, all else being subordinate and of small (because transitory) importance. This church idea ran parallel for a time with the civil and secular law of the State, but ere long it sought to overpower the latter, as it had already overshadowed it. Hence the beginnings of a contest between two principles still alive in our own day, a contest which at bottom is a struggle between the civil and the spiritual conception of society. It was the spiritual power which alone, as might have been expected, concerned itself with education, and nothing could consistently be held by it to contribute to the forming of the life of a human being save what trained up to the church conception of human life, which was necessarily a theological conception. Man's inner history had now a far more profound significance than anything dreamt of by the most forward races of antiquity. Greece and Rome as sources of intellectual and moral teaching had been blotted out, and the atmosphere breathed for at least 750 years was, essentially, that of Palestine. Men, however, could not live permanently bound and restricted by the theological idea and the narrow formalism of a crystallised creed. The perennial and ever-recurring claims of reason as reason had to be satisfied. It was in the eleventh century that the mind of Europe began to be stirred to activity in various directions outside the ecclesiastical. In the field of education it gave itself to the furtherance of the higher

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learning and not to the education of the people. And, I think, rightly. What the people chiefly wanted was good clerics, good physicians, good teachers, good lawyers; and for this they had to look to higher schools. More is accomplished for the civilisation and education of the masses by supplying every part of a country with good professional men than by teaching everybody their A, B, C. The educated professional few carry with them a standard of life wherever they go, while serving their fellow-men in all that concerns their daily needs and highest interests.

The voluntary associations of learned men which represented the awakening mind of Europe, and formed the nucleus of universities, were in truth engaged in restoring the thought of Greece and Rome in connection with the now dominant and organised Christianity. Roman law in its full historical sense and Greek philosophy and medicine formed the substance and source of the new teaching: the men of the 12th century were knitting together the broken continuity of the life of reason. The thought of Greece and Rome, in short, had now to be co-ordinated with that of Palestine in the life and education of a modernised Europe.

It will be apparent from what I have said that the modern university had now and henceforth for its function the carrying forward, in accordance with modern methods, of the united traditions of Palestine, Greece, and Rome, and, as pioneers of humanity, advancing the bounds of knowledge on these ancient lines. They did this, however, and are still doing it, in no abstract spirit, but with a view to place men on a higher plane of rational life and to prepare for the various professions, so that the *whole nation* may through the professions benefit by the endowments which have been left by far-seeing citizens, and the privileges which have been granted by wise statesmen.

It was, in point of fact, this practical and professional side of the higher learning which engaged the attention of the originators of universities—then called *Studia Publica* or *Generalia*. The earliest of these institutions was, in fact, a medical college, with, of course, a preparatory training in arts (1060). It was situated in Salerno, near Naples, and probably owed its origin to the Benedictine monks of Monte Cassino, not far off, who had always a reputation as skilful leeches. The next institution holding university rank was Bologna, which also was a specialist school devoting itself to law (1080). The university of Paris may perhaps rank next in order: theology constituted its special feature, and teaching and the services of the church its practical aim. But as theology required for its scientific treatment

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the study of philosophy (including under this, ethics, and Aristotelian physics), it naturally and early came about that for philosophy and theology Paris was eminent, and kept the lead of Europe for centuries. Oxford and Cambridge next arose as schools of arts and theology, and Montpellier, in France, as a school of medicine.

It was only after these universities, or specialist *studia publica*, had existed for a considerable time that each began to add to itself (and that very gradually) the faculties in which it was deficient, and accordingly, before the year 1300, no institution was regarded as a complete university which did not profess investigation and teaching in the four faculties of theology, law, medicine, and arts. By "arts," in its more restricted sense, was meant grammar, logic, rhetoric, and mathematics.

It was not necessary, however, that all the faculties should be included in order to justify the title of "university," for this word meant nothing more than a *Studium Publicum*, or *Universale*, or *Generale*; that is to say, a school open to all the world which gave the higher teaching in one or more departments, and granted a qualification to practise the professions or to teach. To this day many of the universities are incomplete in their faculties, and it is only of late years that great universities like Oxford and Cambridge have revived faculties which had been allowed to die, such as medicine and law. In the ancient university of St. Andrew's, in Scotland, there is even now no faculty of law, and Aberdeen is only trying to form one. The faculty of medicine also in St. Andrew's is only now being established on a proper basis by means of a separate but incorporated college.

The above facts sufficiently show that the original aim of the higher schools of the modern world was practical and professional; nor could they have existed on any other terms. It was at Paris alone that philosophical inquiry, embracing under philosophy questions of natural science in accordance with Hellenic tradition, truly flourished, leading in the course of time to freedom of speculation and to scientific investigation, and thus indirectly accomplishing much for the political liberties of Europe by promoting liberty of thought in abstract fields.

Let us now advert to the primary constitution of the first universities, which is the next point of interest as bearing on the university of the future.

Universities were, to begin with, not founded either by Pope or King. They were voluntary associations or colleges of teachers, who offered to instruct all who came to them with a view to the different professions. They lived by fees. They had no public

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buildings. The lectures of the masters or doctors were given in their own houses or in hired halls. Their great ceremonies were performed in churches borrowed for the occasion. These voluntary associations of learned men were free, in so far at least as they professed and taught free from monastic restrictions, although it is true monks taught, and in course of time monastic orders tried to get possession of the whole academic machinery. The university, accordingly, is to be regarded as not only marking the beginning of professional studies, but as the beginning of the liberation of the mind of Europe from the monastic and ecclesiastical control of the earlier half of the Middle Ages. It is absurd, I think, to say that the university was a "lay" movement in antagonism to the ecclesiastical spirit, but it was unquestionably a lay institution and contained the seeds of intellectual liberty. To the university accordingly the modern world is deeply indebted. It can never pay its debt, so great is it. And resting as heretofore on a historical basis, and discarding merely theoretical views, I affirm this, in addition to certain other propositions already implicitly laid down as emerging from the above survey of historical origins, viz., that freedom of thought and speech is essential to the idea of a university, just as it was in the inmost heart of them when they began to live.

Further, I would say that these self-constituted, self-governing communities moulded themselves, consciously or unconsciously, on the mediæval guilds. They were guilds of learning—literary guilds. Of these guilds even the scholars were members, and the masters (afterwards called professors) held very much the same relation to the scholars as a master in an industrial guild held to his apprentices. The masters were equal one with another and elected their own rectors (in some cases with the concurrence and votes of the scholars). From this historical fact emerges another mark or note of a true university. It is a guild, republic, or commonwealth resting on intellect and character alone, and in no way dependent for the position of its members on the adventitious circumstances of fortune or birth.

Ere long the Pope granted Charters of Privilege to these institutions, and soon after kings and emperors began formally to found them within their dominions for the benefit, primarily, of their own subjects, though they were open to all the world. The stream of young men constantly traversing Great Britain and Europe to study at Paris and Bologna was thus gradually reduced. But it can be easily understood that the founding of universities and granting of privileges gradually abstracted somewhat from the freedom and independence of the learned communities. But the freedom, independence, and autonomy were never wholly lost, and under new

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forms they substantially exist to this day in the leading universities of Europe. In so far as a learned institution is not autonomous, but governed by a single head or an outside committee or board, it is not a true university, but merely a college or school, however great its reputation may be. There can be no doubt that it is the freedom of thought and speech, the personal freedom, the republican equality and autonomy of universities which, more than anything else, have attracted to them the intellects of Europe. It has been from the first in the interests of the people, and under democratic conditions it is in an especial sense their interest, that universities should be self-governing and free, and be in a position to offer resistance to temporary phases of popular feeling or oligarchic despotism.

I may now sum up the characteristic notes of a university in its modern and best form as these are suggested by the above brief survey, and propound them anew as the essential marks of the university of the future:—

1. The university must embrace the whole tradition of philosophy (including under this religion), science, and learning (language, philology, literature, history, law, &c.), and each subject must be represented by a professional expert, with such lecturers, assistants, and tutors as may be required working round him as centre.

2. As the university exists for knowledge which all are to share, each professor is under obligation to advance the bounds of his subject and contribute them to the world outside the university (and this should be done at the expense of the university if need be).

3. Each professor, with his staff, must teach the subject, and the method of investigation peculiar to it, to all who may come to him, whether they intend to graduate or not. The professor is there to teach as well as to learn.

4. Each university must so group its studies as to train for *all* the professions, and so benefit the world at large by sending out its ambassadors and representatives among the people in every department of intellectual, as distinct from industrial, activity, so that all may share in the thought of universities.

5. Each university must, as a guild of investigators and teachers, be a literary republic, self-governing and free, with only such restrictions and right of supervision as the State may in the general interest determine

6. As a guild, each university must train its own apprentices or specialists, so as to secure the apostolic succession of competent representatives.

7. As the guardians of the realm of knowledge and ministers of science, each university must be at once a storehouse of the learning of the past and a leader of thought. To it, graduates, who, wherever



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they may be, always remain members of the guild, should be encouraged to return from time to time to find there (without payment) the last results of investigation—each in his own department of social activity. And this for the general weal.

As regards the students in *statu pupillari*: These are presumed to enter on their various groups of studies fitted to do so, not merely by acquired knowledge, but by maturity of mind. Graduation in this or that subject or group, so far from being essential to a university may be said to be in these days almost a superstition. Universities, it is true, have inherited the sole privilege of granting degrees; but they do not exist for this purpose. They exist to prosecute study for the sake of mankind, and to equip young men for the work of life. In the interests of the people and for their protection, however, it is necessary that every man and woman entering a profession should have a certified qualification, and this we call a "degree." Such a qualification is best to be had through the universities to whom the privilege originally belonged, and the State should always depute it to them in order to save the duplication of agencies, and to give strength and dignity to their highest educational institutions. But, except for this specific purpose, degrees are mere accidents of a university; and my conviction is that if there was less competition for honours in graduation and for the rewards attached to these, our universities would produce more and teach better. In any case, few, I hope, will question the position that every professor and every subject should be accessible to the general public without reference to graduation.

As to their means of support: It is quite clear that if universities are to accomplish their work for the nation they cannot be self-supporting. Even primary schools cannot be self-supporting, much less secondary schools, least of all universities. They have to look ultimately not to individual benefactors, but to the whole body of the people for maintenance. They are entitled to it in a sense in which no other institution is entitled to it, because, as I have shown, they work for the *whole* nation and not for a part of it only. Let the idea and purpose of universities, as I have endeavoured to explain it, be thoroughly understood by the people, and the people will not grudge their fitting maintenance. In Germany, where the university idea has been most fully developed, the State contributes 72 per cent of the total expenditure. In England and America (outside the State universities) the main source of revenue is private endowment and the fees of the students. In Scotland the State contributes about £70,000 a year.

The poorer class of citizens, while frankly acknowledging the benefits they receive from universities, may yet sometimes have felt

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aggrieved that they are not open to their clever sons. In a sound social system the rise and fall of families is necessary to the health of the body politic and to the stability of social order. To facilitate this, reasonable provision should always be made to secure for scientific investigation and the professions the really able children of the people; but only the *really able*. Much nonsense has been talked about the "ladder" from the gutter to the university. Make that ladder climbable by the ordinary brain, and, ere long, young men of creditable diligence but of ordinary capacity will find themselves, among a crowd of competing graduates, elevated to genteel destitution and supreme discontent, instead of earning an honest solid wage in the service of society in some congenial occupation. In this "ladder" phrase of the popular orator we encounter, it seems to me, both a superstition and a vulgarity. A superstition because many seem to imagine that the "higher education" can be obtained within the sacred walls of a university alone. This is in these days notoriously not the fact. *Professional* fitness, it is true, can alone be adequately obtained in such institutions, but *education* can be obtained outside them by all who have it in them to care about their own education. Libraries, cheap literature, lecture courses, have placed within the reach of every youth in our towns (and will ere long do the same for our villages also) all the education a man needs either for this world or the next. I guard myself so far as to say that the "ladder" has a meaning, and it should exist, as it has always existed in Scotland, for the specially able; but I hold, in the interests of the climbers themselves, that it should be difficult to mount. Were a university course necessary to education and culture, in the best sense, of a human being, the ladder should then be made easy to climb; but to suppose this is to be the victim of a survival of an effete idea. Education is what *all* want, and *all* may now get it, if they choose, without going to universities. University teachers themselves are, as a matter of fact, frequently not educated men in the sense of "cultured" men. Each man is too much of a specialist, and ridiculously exaggerates the importance of his own corner of the vineyard. This is, so far, well for the advance of knowledge; but it is fatal to the education of the individual. He does not come into contact with nature, with man, and all the realities of life in the broad and liberal way which is possible for the citizen of the world; and thus he is apt to be finally and fatally narrow. This is not education. There must always be an aristocracy of mind—a select few who are specially endowed for the advance of science, philosophy, and literature. God has arranged for this; but there need now be no aristocracy of education in the true sense of that word. If the living fountains may not be

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approached without money and without price, they are now accessible at a cost which every man who is prepared to sacrifice a little may easily pay.

I have said also that the "university ladder" is a vulgarity as well as a superstition, because there underlies it the notion that only by rising into another class in life can a man fulfil his function as a man and be also "happy." I presume that provision is made for the absorption into the professions and the work of investigation of the very best brains of the poorer classes; but, speaking generally, there can be no doubt that the average man will best attain both education and "happiness" by doing thoroughly well the business for which he is best suited, it matters not what it is. Infinitely more important than the "ladder" are such industrial arrangements as shall admit of social relaxation, literary interests, and intelligent political study on the part of all. It is not desirable to *tempt* men into professions. The gospel of "getting on" is after all a devil's gospel. All any man can rationally desire is the means of adequately maintaining himself and his family under civilised conditions—conditions which will enable him to make the best of his humanity, while doing effectively his specific duty in the social organisation.

The university of the future, as will now be seen, is simply the ideal university of the present; and that, again, is a product of the best traditions of the past. Is there nothing else and nothing new that they can in these days be expected to accomplish for the nation which supports them? This they can do—they can further extend their aims so as to embrace all subjects which admit of scientific treatment and scientific methods. To the genuine academic man as opposed to the narrow academic pedant there is nothing common or unclean. I do not mean that universities should have chairs of the science of the art of fly-fishing, or the art of sweeping the streets, but only of such subjects as are general in their relations and cover an uncountable, or at least an uncounted, number of details. The nation is entitled to claim this comprehensiveness. Exclusiveness in particular lines of study will be fatal to universities when they finally rest on the popular will; and it ought to be fatal to them. A university which imagines that it attains the ends of its existence by the production of a "classical fellow" is digging its own grave. Vast now are the fields of knowledge, vast the intellectual and ethical interests of mankind. In every field the university, while not breaking with the past, has to adapt itself to the present and the future, and in every department to investigate, to propound, and to guide. As soon as the broad

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current of the life of humanity passes them by, leaving their walls untouched by its living waters, they will perish, as they have perished often in the past.

Again, the university of the future which teaches by publications will not convert its University Press into a tradesman's shop, but use it after the example set by President Schurman in Cornell University, New York State, by the University of Chicago, and by Harvard, to issue journals of philosophy, education, and science, telling the world what it is accomplishing for it, and sharing with it the results of its studies. We have much to learn from the United States of America.

If the above be a correct statement of the nature of a university, it follows that a body constituted solely to examine for degrees usurps the name of university. It has only one characteristic of a true university, and that is an accidental and adventitious, rather than an essential, characteristic. It is in my opinion vital to true education that those who teach should also examine on the lines of study which they have laid down ; assessors being appointed to check narrowness, and to secure an equitable exercise of a power which affects materially the rights of students. Colleges may be constituted parts of a university provided they comply with university requirements as to qualification and standing of teachers, and accept the university assessors. In that case, however, the assessors, as discharging the function of judges, carrying a certain standard of attainment and method from one college to another, must be highly-paid officers, if we are to secure men eminent in their respective departments, of independent character, and above suspicion. In this way the university of the future may extend its centres of influence by recognising local colleges.

There is still a fourth way in which the university of the future will continue to extend its benefits and consequent influence ; and this, by bringing them in contact with the people, will re-act on them by stimulating their vitality, for it will supply to them some of the breath which sustains the great world outside. I refer to the Extension Lecture system.

At this point I pause to take up a paper by Professor Mahaffy, published in the *Nineteenth Century*, and I find that, while concurring with much that is there said, I dissent totally from the tone, spirit, and practical purpose of the article so far as universities are concerned. Anything more un-Hellenic I never read. It is not only conservative and obscurantist in its attitude, but retrogressive. The narrow and wholly unhistorical meaning which Professor Mahaffy gives to "liberal arts" shows that he would have contended for the exclusion of medicine from the ancient university of Paris

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700 years ago, and of civil law from other universities. He would have kept the universities mere "trivial" schools of scholastic logic and a little mathematics with metaphysics and theology for the more advanced. The university of the future, I hold, must, in loyalty to the *spirit* of the past, and in obedience to the bidding of ancient Greece itself, include all subjects which have a general bearing on the life of society and admit of scientific method. And, as to languages, while, not admitting that French, German, and Italian are so important educationally as Latin and Greek, they yet can be handled in an academic spirit, and yield a culture far transcending the miserable scraps of antiquity which the "pass" graduate crams for his degree. Professor Mahaffy in his admiration of the "great old studies," as he calls them, gazes with fond admiration on the past. But he does not look far enough back. Athens and Rome knew nothing of the "great old studies;" the mediæval universities knew nothing of the "great old studies." "The number and division of the subjects for a liberal education [now accepted]" were not "fixed by long mediæval tradition." They are modern. It is only the past of Professor Mahaffy's great-great-grandfather that constitutes his ideal and calls forth his sentimentalism. Even in the sixteenth century where was history? where was Greek? and in the middle of the fifteenth where was even Latin? Even in Milton's time we are told by that true inheritor of the genius of antiquity that the universities offered an "asinine feast of sow-thistles."

But to pass from this, I would recur to the fourth way, and say that the universities can maintain their connection with the life of the people by that very system of extension lectures which a sacred few who monopolise "true culture," and whose intellectual life revolves round elegant sentences and the settlement of all questions by epigrams, despise. The idea is an old one and will be found in the New Atlantis. No doubt this new movement requires criticism, and will be the better for it. Above all, it requires to be purged of the greatest of all the evils that attend it—examinations and marks. But who originated this essential departure from the idea of genuine education but the universities themselves, where these things flourish rampant, destroy unencumbered freedom of study, tend to quench original investigation and devotion to truth irrespective of "rewards?"

If we put an end to this educational abuse, and to the false notion that extension lectures can give a university education, what but good can come of courses of lectures which widen the interests and help to direct the thinking of the middle and artisan classes? Every good movement has its attendant evils. Professor Mahaffy thinks it a poor result of the great movement of popular education that those who have learned to read, read only trashy stories and partisan

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newspapers. But what is the result of secondary education among the upper classes, not "persons of the poorer sort" (whom Professor Mahaffy feels to come between the wind and his academic nobility)? What does the Public school boy, who has been bred on the "great old studies," read? What does the young lady peruse in the boudoir after she has been duly "finished"? Who reads the "odious weekly press," with its adulteries, society scandals, &c.? Professor Mahaffy thinks that it is the board-school boy and girl. Does he forget that these journals, with few exceptions, cost sixpence? In truth, the argument of the brilliant Irishman is an argument against all education except that of the college don, who is to sit in his chamber and gaze with rapt eye at the "great old studies," although he probably has not read, except for professional purposes, a play of Sophocles or a line of Lucretius since he used them for the double purpose of gaining money and place. Does he really, in his heart, think that the "common room" product of the "great old studies" is the triumph of civilisation?

Let me say, in conclusion, that the danger to which the university of the future is exposed is interference with their liberty of thought and government on the part of the democracy. Slow to apprehend remote issues, and swayed by the impulse of the moment, the people may be intolerant of abstract study, and may also resent teaching which runs counter to their own temporary convictions and supposed interests. To obviate this, we can only look to the general diffusion of education, and to the action of the universities themselves in casting aside all narrow conceptions of their duties to the public.

*University of Edinburgh, September, 1893.*

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## SOIL—AND WHAT IT WILL GROW.

BY JAMES LONG.

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**I** REMEMBER that as a boy, when scientific teaching—nay, scientific revelation—was but little recognised, I formed a belief, founded doubtless upon the basis of religious instruction, especially with regard to the Divine power, that the plants of the field grew in mysterious obedience to the omnipotent will without the contributory aid of air, light, or food. Since then unhappily many years have passed away, but science has been gradually developing and formulating facts which enable the student of to-day to look upon the soil and the plant as men of the past generation looked upon food and animals. We are now led to regard both plants and animals as organised and living creations alike feeding to live, and alike flourishing in the sunshine and the pure atmosphere which surround them. There is a connection between the plant and the soil which is more subtle than appears at first sight. The rotation adopted by the farmer in growing his crops is not more salutary than the rotation by which he unconsciously converts plant or organic life into constituents of soil, and constituents of soil into organic or plant and animal life. He harvests his crops, large portions of which, after passing through the animals he owns or beneath their feet, are converted into manure, carried into the fields, and by the process of decomposition reconverted into their original elements. Briefly, the larger the quantity of manure returned to the soil the larger the crops it yields; hence it follows that the larger the crop grown upon a given area the larger the number of animals it will feed, and the greater the quantity of manure it secures. *Primâ facie*, it appears that inasmuch as a large quantity of the produce of the soil, direct and indirect, is removed from it for the use of man, the soil must be gradually submitting to a course of impoverishment. Whatever may be the case, however, where soil is badly tilled, it is not so under the recognised agricultural system. Nature does a great deal, as we shall see, to supply fertility, but man also does something, and it is within his power to levy contributions from nature without cost and with as little trouble as he exerts in purchasing and utilising artificial fertilising matter.

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Soil is matter, and matter has been described as that which occupies space. Our earth is a globular mass of matter, one-fourth of which is covered with a crust composed of rocks. These rocks, it has been estimated, are to the extent of one-half composed of oxygen, which has been absorbed from the atmosphere. The earth's crust is almost wholly composed of sixteen elements, although the majority are present in but small, in some cases even minute quantities. The rocky crust of the earth, however, is not soil, yet portions of rocks contribute to soil formation, and are necessary to its composition. The materials of which organic life is composed are oxygen, hydrogen, nitrogen, and carbon—all derived from air and water—lime, potash, sulphur, phosphorus, iron, and other elements, in very small quantities it is true, derived from the earth's crust, or in other words from the primitive rocks. These earthy elements are taken up by the roots of plants direct from the soil in which they grow, in some cases through the medium of water in which they are dissolved. Water itself supplies them with oxygen and hydrogen, the atmosphere with carbon through the medium of carbonic acid, and in some cases it is now known directly with nitrogen. Thus it is comprehensible when we see plants growing on a heap of stones, trees on barren rocks and almost desert sands. A fertile soil, however, is very different in its composition to either a sandy desert or a barren rock. As we shall show, organic matter, the product of animal or vegetable life, usually called *humus*, is a necessary constituent. It is indeed a constituent supplying in its decomposed form not only every kind of food necessary for the sustenance of plants, but providing the physical properties which assist in admitting air and water and maintaining heat, all so essential to plant life.

It is unnecessary to inquire as to the origin of the earth's rocks, the basis of soils, and the structure upon which soil rests. Astronomers and geologists have advanced theories which are accepted to a more or less extent. The origin of plant life itself is a subject which has exercised the greatest minds.

Scientific men of the first rank have suggested that fungi of certain kinds represent more closely than any other living forms the original ancestors of the vegetable world. Professor Huxley, who deprecates even the right to give an opinion, says that if he were able to look beyond the abyss of geologically recorded time to the still more remote period when the earth was passing through physical and chemical conditions, which it can no more see again than a man may recall his infancy, he would expect to be a witness of the evolution of living protoplasm from not living matter. He would expect to see it appear under forms of great simplicity, no doubt like existing fungi, with the power of determining the formation of new protoplasm from such matters as ammonium



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carbonates and other similar substances, and water, without the aid of light. It has been suggested by another eminent scientific man that the first life-form may have arrived upon the earth upon one of those metallic fragments which, whether portions of the *débris* of other planets or not, have at all events puzzled the minds of the most famous astronomers when attempts have been made to account for their origin and presence on the earth. Whatever, however, may have been the first cause, we have to take it for granted that the germ of organic life is protoplasm (*protos plasma*, first moulded), protoplasm being, as Sir Henry Roscoe describes, a structure, not a compound.

Soil has been produced by the gradual disintegration and decomposition of rocks. The agents in this action have been, as they are to-day, for it is still going on, rain, frost, and the atmosphere. It consists of a fine powder mixed with particles of matter of larger and varied size. This powder may be divided into mineral and organic matter of both vegetable and animal origin, of which we may take decaying plants, such as the roots of our cereal crops and grasses, and manure as examples. The actions which have produced it are assisting to increase it, and that constantly. Let us first refer to the disintegration of rock. It will be remembered that if a lump of clay be exposed to rain until it is saturated with moisture, and then similarly subjected to the action of frost, it will ultimately fall to pieces; as it is commonly termed, it is pulverised by weathering. The agriculturist takes advantage of these forces of nature to assist him in preparing his soil for seed. Similarly rocks exposed to the air become saturated upon their face, frost supervenes, and disintegration follows with a similar result. The atmosphere assists in the work of decomposition through the medium of its oxygen which combines with some of the constituents of a soil; this is termed oxidation. A soil essentially consists of sand and clay with proportions of humus, lime, iron, and other materials; but we may take it that neither sand nor clay are present in pure forms. From the point of view of fertility the surface soil is rich, the subsoil poor. Portions of the subsoil by continual acts of tillage are being brought to the surface and mixed with the surface soil, and in this way a greater depth of surface soil is continually being provided. The produce of the earth is, practically speaking, the produce of the soil and of the atmosphere, for air is as necessary as the mineral constituents of the soil, and as water. It is easy to ascertain not only that plants are partially composed of water, but the proportion of water they contain. If a given weight—ten pounds, for example—of grass be cut during fine weather in order that there may be no suspicion of rain or dew upon it, and subsequently dried until its weight remains constant, it will be seen by deducting its dried

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weight from its original weight when green exactly how much moisture has been driven off. Similarly it is easy to ascertain that a large proportion of the grass—and the same applies to all plants—is air derived. The dried grass being ignited and every particle burnt, the weight of the ash remaining, deducted from the original weight of the dried grass, will give the proportion which has been dissipated by combustion, and which is in fact air derived. The balance, being non-combustible and inorganic, is ash or mineral matter which alone came from the soil. Let us take from Ville an example. He shows that in a hundred pounds of wheat, 93½lbs. are air derived, while of the remaining 6½lbs. only three consist of nitrogen, also air derived. Potash, phosphoric acid, and lime alone are of importance, the balance representing mineral matter which is usually found in all soils in sufficient abundance. The water of a soil is not only a direct food of itself, but it is as it were a vehicle by means of which the soluble constituents of a soil needed by the plant are conveyed throughout its structure, for it must be remembered that a portion of the indestructible ash residue of the burnt plant is dissolved in water. The mineral matter of a soil in solution in water has been shown to vary between 2 and 100 per 100,000 parts. The productive power of a soil relates chiefly to those of its elements which can be assimilated by plants, while its fertility chiefly depends upon its physical condition.

The differences in the temperature of soils are especially noticeable after heavy rain. On soils of the lighter class, those in which sands and gravels predominate, the ploughman is able to go to work almost immediately the rain has abated. The heavier soils, which are chiefly composed of clay, he is unable to touch, without inflicting damage, for some considerable time, often many days, after rain has fallen. Soils may be divided into clays, sands, gravels, chalks, peats, and loams. A clay is a soil in which clay largely predominates; the same remark applies to sands and the soils of other classes. A loam, however, is a soil of a mixed character. Technically it has been assumed that a loam is composed of a mixture of clay and sand, but practically it is recognised as a soil containing liberal proportions of clay, sand, limestone, and humus, or organic matter. A rich, workable, fertile loam may consist of—

	Per cent		Per cent.
Clay.....	40	Limestone.....	10
Sand.....	40	Humus.....	10

In practice, soils of each class, if we except loam, are improved by the addition of those materials in which they are deficient. A light sandy soil is improved in texture by the addition of clay, in which certain mineral food constituents of plants are also present. If to this sufficient lime is added a foundation is prepared for the growth

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of crops, and with a natural deficiency of humus the grower will at once attempt to further improve it by either ploughing in green crops which he is able to grow, and which rapidly form humus, or by feeding the crops he grows upon the soil, enriching it with manure, which is practically the same thing. Similarly a clay soil is improved by the addition of sand and vegetable matter. Knowledge of the process by means of which this addition is affected is, however, most desirable. A light sandy or gravelly soil would be improved by the trampling of sheep folded upon it within hurdles, and feeding upon the crops produced for their benefit; but the clay soil, already tenacious enough, would be damaged by any such process, hence the crop is either ploughed under the surface or carried away and returned in a dry form such as is recognised in long manure, composed chiefly of straw, for the reason that it lightens the texture and is the means of admitting air and rain into a composite mass which is so plastic that it would otherwise refuse admittance to both.

We have noticed the fact that in the formation of soil, water in the form of rain plays an important part, but it has done a great deal in another way. If we notice the effect of rain upon a gravel road after a severe storm we shall see that the gravel has been washed clean, and that the fine sandy matter which has been produced by constant wear has been carried to the bottom of the hill, where it remains as silt or as a mixed sandy and earthy mass. Larger masses of water have similarly carried soil away from a higher to a lower altitude, during the vast period of time, until deposits of a very large extent have been formed, ultimately resolving themselves into luxuriant fields. In many parts of our country large tracts of soil have been deposited in another way. An example may be given, although it is one afforded by the skill of man. In parts of North Lincolnshire land is constantly being subjected to what is known as warping. The waters of the Humber are turbid with organic matter. At high tide, the soil over a given area, for which provision has been made at considerable cost, is flooded. The matter in suspension in the water is deposited and the water is subsequently run off, leaving behind it its most valuable ingredient. Similar floodings take place until the deposit has reached perhaps a foot in thickness. The soil is then immensely improved, and is capable of growing luxuriant crops for a very considerable period. The benefits, however, which are derived by the soils in some districts from the action of rain, which brings them valuable deposit, have the very reverse of a salutary effect upon the more elevated soils, which, as in parts of Devon, for example, are as constantly impoverished, although they are improved by the persistent efforts of the farmers. In times past it was the

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practice to carry soil to the higher fields from the lower, which could well spare it, in order to enable them to produce crops. The formation of soils has also been assisted in bygone days by the action of glaciers, which, as they ploughed along, ground the rocks beneath them, leaving matter behind for the benefit of future generations.

## CLAY SOILS.

As clay soils are most tenacious so are they, unless too plastic for cultivation, most retentive of the fertilising matter they contain. A clay soil containing a fair proportion of sand and vegetable matter is capable of producing heavy crops, and although difficult to work in dry and wet weather it is essentially fertile. It absorbs heat very slowly, especially below the surface, and for this reason it is usually described as a cold soil. For the same reason, also, decomposition is slow, a certain amount of heat being necessary for the decomposition of organic matter. As oxidation is essential, too, that is not very rapid, for air is unable to enter unless by frequent cultivation the soil is stirred. Artificial manures of great value on lighter soils are not so effective as farm manures upon clays for the reason we have already stated, the physical influence of the straw of dung being almost as important as its manurial influence. Clay is also retentive of water, which it permits to evaporate but slowly, so that a clay soil may be dry on the surface and yet damp below; in consequence, too, of its peculiar tenacity capillary action is slight. If a piece of sugar be placed in a small quantity of water just covering its bottom surface it will be observed that the water mounts upwards. Similar action occurs in a soil of any but the most plastic texture, and this action is continually proceeding, to the great benefit of plants with shallow roots. On some clay soils the action of rain causes the clay to separate from the sand with which it is combined. Thus a crust is formed on the surface, which is almost impermeable to both rain and air. Clay is practically composed of alumina—a combination of aluminium and oxygen—of silica and water, with small proportions of potash, magnesia, calcium, and iron. Its alkaline properties are of considerable value to plant life, and for this reason clay soils are usually able to produce certain crops which could not be grown upon other soils without expensive preparation or manuring. A loam in which clay is predominant, and which is called a clay loam, is the best class of soil for the production of wheat and clover. It possesses two properties which are especially valuable to the latter plant—its possession of potash and its firm texture. Clover is recognised by the farmer as a good preparation for wheat, clover having the faculty of being able to obtain free nitrogen from the atmosphere which, after the decomposition of its roots, is available for use by the wheat plant.

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## SANDY SOILS.

SANDY soils, which are the easiest to cultivate, are among the poorest in nature, their poverty depending to a large extent, however, upon the proportion of sand which they contain. No soils are so hungry; in other words, no soils retain the fertilising constituents of manure so badly, hence they are always ready for manure however recently it may have been given. The sand of a soil is usually silica or quartz, but it may be largely composed of feldspar, a substance which is rich in potash, in which quartz is deficient. A sandy soil in which feldspar is present becomes richer in potash year by year under ordinary tillage. A sandy loam is not only an easy soil to handle, but it is excellent in all-round properties—sufficiently heavy to retain moisture and fertilising matters, it is tillable in almost all weathers, it is easily warmed, capillary action is constant, and it will grow almost all kinds of crops. In the management of a gravel soil it is preferable to manure often, giving a small dose on each occasion rather than heavy dressings at wider periods apart. Oxidation and decomposition of vegetable matter is easily carried on in consequence of the penetrability of sandy soils, air and water permeating them with ease. Soluble fertilising matters are distributed on such soils in spring, when they are taken up with rapidity by the growing plant. At other times of the year they are easily carried through the soil into the subsoil and lost in the drainage water unless crops are growing, when they may be to some extent retained. Sand has the property of not only making a soil lighter but warmer and drier, hence where sand preponderates plant life may be starved for want of moisture. Pure sands are practically useless for this very reason, and although, as we have shown in the case of feldspar or mica, some plant food may be present, it may not be available unless other physical constituents of a fertile soil are present in sufficient quantity.

In a gravelly soil the particles of the original rock are larger and more varied in size, although constantly decreasing in both size and quantity as well by the wear consequent upon continuous tillage as by the action of the elements. Stones have the property, and it is a useful one, of warming a soil, but where they are of large size they hinder vegetation and diminish the size of a crop. For this reason they are often picked off and carried away. By the removal of stones the percentage of true soil or mould is increased with advantage.

## LIMESTONE.

LIMESTONE, which is not often pure, may be described as carbonate of calcium, or carbonate of lime. It supplies one of the most

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valuable of soil constituents—lime. When burnt the carbon is driven off and its place is taken by oxygen. Quicklime, as it then becomes, is scientifically known as oxide of calcium. Slaked, by the addition of water, it becomes hydrate of calcium; left exposed to the air, carbon is absorbed, and it reverts to its original condition of carbonate of calcium. It is a curious fact, but to the majority of the occupiers of soil, lime in any condition is lime; in other words, they accept it and use it for their purpose whatever that purpose may be, whether it is in its fresh, newly-burnt condition, when it is highly caustic and capable of rapidly decomposing vegetable matter, or in its last condition when it is little if any better than chalk. For all practical purposes lime is of far greater value when it is perfectly fresh, and in this condition it is mixed with soil in a very well-known form and distributed upon the land. To allow it to remain exposed to rain and air if it is required for land dressing is to pay for it at the lime-burner's price instead of at the price charged by the owner of a chalk pit. Lime is a food for plants. It is present in all plant life, and vegetation is practically impossible without it. Its alkaline action is of great value on sour soils, which are sweetened in each case. Plants of the better class are encouraged to grow, while those which flourish best in an acid medium are discouraged and die off. It has powerful influence in attracting moisture, and may for this reason be used on dry soils with advantage. Its influence upon the organic matter of soil is well known. By its powerful decomposing influence it liberates the ammonia, which is at once available to the growing plant. A mixture of partially decomposed short manure with quicklime will immediately have the effect of liberating ammonia, which is palpable to the senses of the person making the experiment. It is extraordinary how small the quantity of lime is in some fertile soils, where it is present to the extent of no more than from 1 to 3 per cent. It materially assists in improving the physical composition of clays and sands, and for this reason it may always be used with advantage if it can be obtained at a moderate cost. It is a strange fact that although limestone may be present below the subsoil yet the surface soil may of itself be poor or deficient in lime. In many soils it is extremely abundant, and the same remark applies to plants which, like those of the leguminous order, are unusually rich in this mineral constituent.

## HUMUS.

HUMUS, says Wolff, is a product, not an essential soil condition. Practically it is decayed vegetable matter. The scientist already named declares that humus cannot now be considered as an essential and indispensable nutritive food for the majority of plants, especially of those which are usually cultivated. He shows that this fact is

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proved by the possibility of obtaining normal and complete development in a medium entirely deprived of humus, and he brings nature forward to support his argument, for it is no uncommon thing to see plants of a lower order growing upon hard stone, flowers upon brick walls, and trees upon rocks. Humus is gradually accumulated in most soils, and in spite of the continual crops which are raised these soils go on progressing in richness in this property. Beneath an old turf there is often an accumulation of humus so rich in fertilising properties that, broken up, the soil would produce successions of crops almost equal to the virgin land of our colonies. In old English gardens, too, which have been liberally manured year by year, and especially where leaf mould has been added for the benefit of special crop, the humus is present to such a large extent that, as Sir John Lawes has shown, the soil would provide nitrogen for plant growth for a very considerable period. As the humus of a soil gradually decomposes, it liberates nitric acid and ammonia, together with other constituents for the annual consumption of plants. As these materials are among the most valuable and most necessary of all soil constituents, the presence of humus, where decomposition is regular and consistent, is of the greatest value, for the food supply it affords is regular and consistent. The decomposition of the humus of a soil may be hastened or retarded by skilled management, bearing in mind that heat, air, and water have the effect of hastening it, especially when assisted by the influence of lime. Wolff says that the most marked advantage resulting from the use of humus resides in the extremely favourable influence which it exercises upon the physical properties of soil. In convenient proportion it indicates a physical constitution which assures the success of crops in the highest degree, the best utilisation of manure, and makes generally possible a profitable and active cultivation. Humus diminishes the tenacity of clays, rendering them permeable to heat, air, and water. Humus also prevents the damage communicated to superficial soils by heat; it assists the penetration of superabundant water in the subsoil, and the ascension from the subsoil of moisture during periods of drought, accelerating the disaggregation of the elements of the soil, in other words the dissolution of matter providing plant food. By increasing the proportion of humus, sandy and chalky soils acquire greater consistence, they are dried less easily and preserve for a greater length of time that condition which is so favourable to the absorption of the nutritive elements of the air, and of all feeding matters in general, by the plant in full growth. When humus is in excess it destroys the physical condition of a soil, which becomes cold, wet, and spongy. If the water present is stagnant an acid is formed, which is unfavourable to the prosperity of cultivated plants, but which favours the growth or development

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of weeds or plants of a lower order, such as are commonly seen in wet, marshy, or boggy districts. An inspection of a peat farm such as that in North Lincolnshire where peatmoss is dug for sale is instructive from this point of view. To a considerable depth living peatmoss is found, but under no condition would it be possible to convert soil of this kind, which is a mass of vegetable life, into a fertile soil. Like the sand of a desert, it is practically composed of one material. There are peat soils, however, which are cultivated, but, although undecomposed, the organic matter may be in excess. There is also present sand and decomposed matter which gives them the character of a soil. The surface may produce vegetation, even grass of a low order, but nothing can be done to improve it and to enable it to grow more luxuriant crops without the assistance of liberal cultivation, lime, and manure. Under no condition is cultivation possible where water is present. Draining is the first necessity of all wet soils. Humus contains a large proportion of carbon and combined nitrogen, but the nitrogen, the most valued of all fertilising constituents of soil, is useless until by decomposition and nitrification it has been liberated. We may take it for granted that in peaty soils a large amount of fertility is locked up.

We have already referred to what may be termed the physical constituents of the soil, constituents which may be again subdivided into the elements of which they are composed. Evidence has been adduced in the Rothamsted experiments showing the actual weight of these physical constituents in a given acre of land, taking the first nine inches of the soil as representative of their respective proportions. The field in which the experiment was made had been down to grass for nearly thirty years.

## ROOTS, STONES, FINE SOIL, AND WATER IN GRASS LAND.

	Tons.	Per	ent.
Roots.....	4.6	....	.3
Stones .....	403.7	....	26.9
Dry, fine soil .....	852.2	....	56.7
Water .....	242.5	....	16.1
	1503.0		100.0

It is true that in this field the stones were present in a higher proportion than in any of the ploughed fields on the Rothamsted property; nevertheless the proportion of stones in rich pasture land, as shown by these figures, is extremely large, much larger than would be supposed by a cursory examination of the soil. It will be remembered that the value of stones to plants is extremely small if regarded from the point of view of their food supply. Undoubtedly they are subjected to the same action of air, rain, and frost as the primitive rocks, in addition to which they must be upon all



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arable soils in some degree affected by the constant system of tillage employed. If stones were ground to powder some of the constituents of which they are composed would be much more easily utilised by plants. As it is, stones, like the rocks beneath them, may enclose mineral fertilising properties which are not available, necessitating the purchase and distribution of artificial fertilisers, brought perhaps from a foreign country. The quantity of food in a soil is said by Wolff to determine its fertility when regarded from the point of view of its solubility and the relative proportion in which it can be assimilated by plants in a given time. Its dissolution in a natural soil and its passage into the plant is in the first place the result of disaggregation, in other words, of the permanent influence that moisture and the elements of the air, especially oxygen and of carbonic acid, exercise upon the soil itself.

## MINERAL CONSTITUENTS OF SOILS.

Six mineral substances are found in all plants. These are lime, potash, magnesia, iron, sulphuric acid, and phosphoric acid. If either of these materials is absent from a soil it cannot be termed fertile. In addition to these, however, nitrogen is also essential, and this is present in every soil containing organic or vegetable matter. To some extent it can be said that it is present in all soils, for a small proportion is conveyed to them by rain. In addition to the constituents we have already named, others are usually found in the ash of plants, although some chemists have expressed the opinion that they are not absolutely essential to their growth. These are silica, soda, alumina, and chlorine. It is a curious fact that of the essential constituents there are four which are usually found in all systematically cultivated soils in sufficient abundance. These are lime, iron, magnesia, and sulphuric acid. As we have seen, lime is not always present to the extent that it ought to be. The soils deficient in lime are few in number, but it is a material so easily and cheaply obtained that it does not often occasion the agriculturist any serious trouble. We have seen that the nitrogen of soil has been originally obtained from the atmosphere. On the other hand, the mineral constituents are derived from the primitive rocks, and under almost all conditions where soils are subjected to tillage their proportion is being increased or developed by the action of water and air, for the disintegration of all exposed rocks, though it may be slight, is regular, and perhaps we may add systematic. Soils of a sandy nature usually contain the smallest quantity of mineral food constituents, as of organic matter, providing nitrogen; on the other hand, peats, so largely composed of organic matter, contain a large proportion of nitrogen, even though it be in an almost unobtainable form. Clays are usually provided with an abundance of potash and

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phosphoric acid, although when it comes to figures, this abundance, relative as regards plant life, is seen to be extremely small. The fact that soil contain such small quantities of these important constituents indicates that it is as much a storehouse of food as it is a vehicle for the growth of plants, through which their roots ramify in all directions in search of the materials they require. It is the oxygen of the air which plays the important part of transforming or decomposing rocks, just as it assists in the germination of seed and in the growth of plants which absorb it. We must not forget, however, in dealing with the soil, that plants do not depend for food upon soil alone. They are built up to a very large extent by the aid of the carbonic acid of the atmosphere, which is absorbed by all green-leaved plants. If a given weight of dried plants—grass, for example—be burnt and the ash weighed, it will be found that by far the largest portion has returned to the atmosphere. Thus the mineral constituents of wheat amount to only from 1·2 to 2 per cent in the grain, and of barley from 2·3 to 3·8 per cent. Similarly in the straw of cereals, the mineral constituents of the soil are present to the extent of from 4 to 18 per cent. In roots the dried bulb of the turnip contains from 6·8 per cent, while in the dried leaves there are only 14 to 20 per cent; whereas in the bulb in its natural undried form the percentage of mineral matter is only from ·6 to ·8 per cent, and in the leaves 1·5 to 2·9 per cent. Even in wood there are few instances, as regards our common timber trees, in which 1 per cent of mineral matter is present, although considerably more is found in the leaves and the seed. The two most important constituents of plants, then—nitrogen and carbon—are taken from the air, and in dealing with a fertile soil, therefore, we have to remember that it must contain the essential mineral elements required by plants and organic matter for the provision of nitrogen; that its physical nature should be consistent with the necessary tillage and with the development and utilisation of its food constituents; that it should be drained either naturally or artificially; sufficiently irrigated by rain, and warmed by the sun, which is not the case in soils on northern sides of mountains in particular. Johnston, in speaking of the discovery of the existence of the mineral matter of plants, says it “establishes a clear relation between the kind and quality of the crop and the nature and chemical composition of the soil in which it grows. It demonstrates what soils ought to contain, and therefore how they are to be improved; it explains the effect of some manures in permanently fertilising, and of some crops in permanently impoverishing the soil; it illustrates the action of mineral substances upon the plant, and shows how it may be and really is in a certain measure fed by the dead earth. Over nearly all the operations of agriculture, indeed, it throws a new and unexpected light.” It does

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not follow that soil of the same quality will or can yield the same results under dissimilar conditions. A warm, rich loam in Scotland might be compared with a soil of identical composition in the South of Italy, but it could not be expected that the produce of these two soils would be the same. The superior tillage of the Scotch farmer might extract from it a superior crop to that obtained by the Italian farmer upon his less advanced system. Much, however, depends upon climate. In one country temperature might possibly be  $10^{\circ}$  to  $15^{\circ}$  Fahr. higher during the growing season of summer, and in the other the rainfall might be much more considerable. In one case heat might be deficient, and in the other rain. Crops, however, are affected by light as well as by climate. We have seen farms upon the hillside in Derbyshire which have been laid down to pasture in consequence of the continued failure of grain crops, owing, as we believe, to the deficiency of sunlight. On the southern side of deep valleys the sunlight is very deficient, and as the absorption of carbonic acid and consequently the growth of plants depends entirely upon the influence of the sun, it follows that where its rays do not penetrate, or penetrate only for a fraction of a day, the result cannot possibly be satisfactory. We have referred to the constituents of soils which are essential to the growth of plants, and to those which are generally found in plants by the analyst. Let us take a few examples from Dr. Wolff, and give the leading constituents of a few representative materials produced or used on the soil, per 1,000 parts.—(*See table, page 410.*)

It will be seen that in the products of the soil the leading soil constituents are present in every instance, that in animal products produced from plant growth upon the soil the most important mineral constituents of soils are also present, and that in manure produced by cattle every constituent is present. Therefore when such manure is returned to the soil it replaces what has been removed from it. Artificial manures, unless specially mixed, do not contain all necessary constituents, more particularly those which are most economical in use. Thus we have shown that phosphoric acid and lime are present in a phosphate, that nitrogen and soda are abundant in nitrate of soda, and potash, magnesia, and sulphuric acid in kainit, which is a material obtained from the earth itself, and used as an artificial manure.

It has frequently been observed by persons who have not taken the trouble to ascertain facts that the continual sale of milk by a farmer results in the depreciation of the soil he crops. The figures we have given will enable anyone who desires to take the trouble to calculate for himself the actual average quantity of each important soil constituent, together with the nitrogen which is removed in the milk of a cow or per ton of milk per annum; and if these

(*Continued on page 411.*)

	Water.	Nitrogen.	Ash.	Potash.	Soda.	Lime.	Magnesia.	Phosphoric Acid.	Sulphuric Acid.	Silicic Acid.
Wheat .....	144	20.8	16.8	5.2	.3	.5	2.0	7.9	0.1	0.3
Clover in flower.....	800	4.8	13.7	4.4	.3	4.8	1.5	1.3	.4	.4
Beans.....	145	40.8	31.0	12.9	.3	1.5	2.2	12.1	1.1	0.2
Pasture grass .....	782	7.2	21.1	8.1	.3	2.6	1.2	1.9	7	4.1
Potatoes.....	750	3.4	9.5	5.8	.3	.3	.5	1.6	.6	.2
Swedes .....	870	2.1	7.5	3.5	.4	.9	.3	1.1	.7	.1
Oat straw .....	143	5.6	61.6	16.3	2.0	4.3	2.3	2.8	2.0	28.8
ANIMAL PRODUCTS.										
Milk.....	875	5.4	7.2	1.7	.4	1.7	.2	2.0	0.1	....
Beast (living) .....	597	26.6	46.6	1.7	1.4	20.8	.6	18.6	....	0.1
Sheep .....	591	22.4	31.7	1.5	1.4	13.2	.4	12.3	....	0.2
Pig .....	528	20.0	21.6	1.8	.2	9.2	.4	8.8	....	....
MANURE.										
Fresh dung .....	750	212	3.9	1.8	4.5	1.3	4.9	1.2	1.0	1.3
Night soil .....	772	198	10.0	10.9	2.5	1.6	6.2	3.6	0.8	.4
Coprolite phosphate..Percent.	3.7	....	....	....	....	43.0	....	26.8	....	....
Nitrate of soda .....	2.6	15.5	....	....	35.0	.2	....	....	.7	....
Kainit..... Do.	20.8	....	....	16.9	....	....	18.5	....	34.6	....

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materials are priced at their market value, an almost accurate idea can be obtained as to the money value of the fertilising matter which has been removed from the farm. It is a curious fact that the same reference has not been made to the removal of cattle, sheep, pigs, or crops, although in each case there is a similar loss, sometimes to a much greater extent, of valuable properties. The following figures, based upon another and lower analysis, show the quantity of nitrogen, phosphoric acid, and potash, the three most important constituents of plant food, which are removed in a ton of each kind of dairy produce:—

	Nitrogen.	Phosphoric		Potash.
	lbs.	Acid.		lbs.
	lbs.	lbs.		lbs.
Butter .....	2.7	1.58	.....	1.0
Cheese .....	112.0	17.85	.....	2.15
Whey .....	2.72	1.84	.....	5.67
Milk .....	12.02	4.50	.....	2.55

No calculation is necessary to show that by the purchase of an extremely small quantity of artificial manure, or of cake or corn which is intended for the consumption of the cows, much more fertilising matter coming under these three heads will be returned to the soil than has been extracted from it.

Phosphoric acid which, next to nitrogen, is, commercially speaking, of the highest value, is found in some varieties of guano, in all bone, coprolite, shell, and mineral phosphate manures. Although, as we have seen in the above table, it is present in every kind of plant, some plants respond much more readily to it than others, and for this reason it is given as a profuse dressing to root crops, turnips, and swedes in particular. The fertility of a poor soil is especially improved by the employment of phosphatic manures in the growth of roots, which are afterwards consumed by sheep folded upon them, the animals at the same time consuming a purchased food such as cake or pulse, which is rich in nitrogen. Thus the soil is enriched for the use of the succeeding grain crop by both phosphate and nitrogen, both of which are thereby enabled to perform a double duty, the phosphates first feeding the roots and then the cereal, and the nitrogen first feeding the sheep through the medium of the albuminous matter of the cake, and next the grain crop. When we are dealing with the capacity of a soil it is essential to remember not only what its primitive nature may be, if it is primitive in character, but what it has been converted into by artificial means such as those to which reference has been made. Crop production is impossible without phosphates, but fortunately they are present in sufficient abundance in many of the heavier classes of soil, although high cultivation is necessary on the part of the occupier of the soil to liberate them for the use of the plant.

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Potash is the third important material which is supplied to the soil by artificial means. Like phosphoric acid, it is present in the heavier soils in considerable quantities, and as it is abundant in all farmyard manure and in all vegetable matter ploughed into the soil, it is seldom that there is a marked deficiency. It sometimes forms one-half of the ash of plants; thus it forms more than one-half of the ash of parsnip roots, nearly one-half of the ash of peas, it is abundant in straw, in the leaves of bulbs, in all leguminous plants, and curiously in the nettle.

Magnesia usually accompanies lime in a soil. It forms a large percentage of the mineral constituents of marl, and in some rocks it is present to the extent of from 10 per cent to 20 per cent. In rye bran there are 11·4 parts per thousand of magnesia, in cotton cake 10 parts, and in the Stassfurt salts, largely used on account of their richness in potash, it forms a very considerable proportion.

Oxide of iron may be recognised as the red rust which forms upon iron which has been exposed to the atmosphere for some length of time. It is the soil constituent which has so much influence in giving a red tint to the arable land of many of our midland county farms. It is also recognised as a constituent which assists in retaining the potash, phosphoric acid, and ammonia in a soil. Humus and clay have the same valuable properties as regards the potash and ammonia.

Soda is essential to some plants, those of a marine character in particular; but it is not essential to others. Soda passes to a much more considerable extent into some plants than others, and it is present in some parts of plants to a larger extent, and in others to a smaller extent. Thus it forms 6·9 parts per thousand of vetch straw, and only 2·1 per thousand of vetch grain. In clover in flower it is present to a large extent, but only to a small extent in clover in bud.

Sulphuric acid is present in all soils in the form of sulphate of lime. It will be recognised as vitriol when in a free and liquid form. It is necessary to all plants.

Silica was at one time believed to have considerable influence upon the rigidity of the stems of plants, as, for example, of the straw of cereal crops. It is now admitted that it is not really indispensable to many plants, although it is believed to affect their ripening.

It may be supposed—the chemist having by his elaborate system of analysis performed so great a service to agriculture, as we may have learned from the foregoing remarks—that analysis of soil is essential for the purpose of showing the grower of crops what constituents are absolutely deficient or requisite; but, as a matter of fact, although the chemist can do a great deal, it is not possible for him to show with any degree of clearness whether a soil is fertile or

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not in the sense that it will produce crops. Fertilising matter essential to plants may be present in sufficient abundance, but it may not be available for one or more of the reasons which have already been advanced. Nor if the chemist could overcome this difficulty would analysis always prove satisfactory; on the contrary, it might prove extremely misleading. Neither one nor many samples of soil from a particular farm, or even from a particular field, always represents the average character of that field, which may vary both in depth and quality. A soil is understood better by those who take the trouble to master what has been discovered and explained by chemical science, and by the application of plain common sense to scientific teaching, than by an absolute reliance upon analysis to the exclusion of the results of practice.

The absorbent property of a soil is in proportion to its richness in clay and humus, and their composition at the time. Liquid manure may be filtered through a porous soil of a particular character, when the liquid will come out clear and without smell. This points to the fact that the chief solid constituents of the liquid are retained, although a portion of the magnesia may pass away, and perhaps a still larger portion of the lime. It has been shown by Sir John Lawes and others that a porous soil is deprived of a large proportion of its fertility in some cases, as when it is laid up by ploughing, and when it is exposed to heavy rain. Under such conditions, more readily than at any other time, the soluble properties which are valuable may be lost.

## FERTILITY.

Soils both acquire or accumulate and lose fertility under certain conditions. Fertility is accumulated, for example, by good tillage, constant manuring, and constant cropping. It is a curious fact that where farming is good, persistent cropping results rather in the accumulation of fertility than in its dissipation or exhaustion. The tiller recognises that the larger the quantity of manure he uses, and the more often he cultivates, the better will be the crop he obtains, and the better the crop the larger the quantity of root, which itself contains fertilising matter, and of food for consumption on the land. Direct manuring with solid or liquid manure, sheep feeding upon roots or grass, and at the same time being fattened with the assistance of cake or grain, and cattle fed upon the land for the butcher—all these assist soil in acquiring fertility. The same remark applies to the ploughing in of green crops, often grown in the autumn or winter season with the object of retaining the soluble properties of the soil, which under other conditions would be lost in the drainage water. The growth of leguminous crops has also, it has now been discovered, a very marked influence

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upon the acquisition of fertility, for in addition to the property of absorbing carbonic acid, which all green plants possess, the leguminosæ are able to obtain free nitrogen to such an extent that after the removal of a crop of clover, for example, a field may be richer in nitrogen than it was before the clover was grown, and this in consequence of the presence of their roots in the soil. When, therefore, we deal with the capacity of soils to grow particular crops, we must remember that they are very much what man has made them, and that they can be adapted under certain conditions to grow diverse varieties of plants which, without the application of science to practice, they could not do.

The fertility of soil is exhausted by bad management and by carelessness with the manure which is to be returned to it. Manure, like soil, contains properties which may be removed by rain; thus, if the liquid produced by cattle is carried by drainage into a yard and there washed away by the rain it is entirely lost. On the other hand, if it is conveyed to a cistern in which it is allowed to ferment there may be a considerable loss of nitrogen. If the solid manure, instead of being packed in a heap under cover, is exposed, it also may be damaged so materially that by the time it reaches the land no more than one-half of its original fertilising properties remain. The losses on the farm are often greater in wet than in dry seasons from these causes. In spite of the fact that nature supplies through the rain and the atmosphere a portion of the fertilising matter of the soil, there is nevertheless a loss when, in addition to what we have already mentioned, the chief crops of the farm are sold, and where no stock is kept to consume what is unsaleable. If leguminous cropping, as we have observed, results in the increase of nitrogen even though the crop may be carried away, it follows that if that crop is consumed the increase is still more considerable. Fertility is exhausted then by bad farming, by the careless management of manure, and by the absence of stock. In some districts like those surrounding the popular towns of Lancashire where the farms are small, the covenants in the leases or agreements severe, and the stock kept considerable, there is a consistent increase of fertility which is almost entirely to the advantage of the owners of the land. We have inspected many of these farms, where the sale of the one great crop—hay—is prohibited, where in fact nothing can be sold but milk and the cattle themselves when they are of no further value for milk production. For the purpose of increasing the yield of milk and of fattening cattle these farmers are in the habit of purchasing enormous quantities of provender, the manure from which is distributed upon the soil, producing the splendid crops of grass which enable the owners to obtain such high rent. Some



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years ago we had the advantage of inspecting a farm in the South-West of France, the property of a distinguished scientific agriculturist. The land of which the farm was composed was originally sand with a subsoil of clay. It grew an abundance of those uncultivated plants which are seen upon land in its unimproved or natural condition. Knowledge of the capacity of a soil composed of a mixture of sand and clay, and of good management suggested to the present owner that its acquisition might be of considerable benefit to himself. It was purchased at an extremely low price for those days, and although unfit at the time to produce any cultivated plant, it now carries enormous crops of all kinds, the bulk of which are consumed by a very large head of valuable stock. Here it is one perpetual system of accumulating fertility. Crops are grown in succession with a twofold object—the feeding of stock and the production of milk, and the further improvement of the soil through the manure returned. Heavy and extensive cropping enables the owner to keep a large head of cattle, to feed them well, and to obtain a maximum percentage of produce from them. The heavy feeding in its turn results in a heavy yield of manure, and in this way (artificial manure being added) the practically barren sand of fifteen years ago has been transformed into a thriving, nay, a luxurious property. If anyone had been asked at the time, assuming that they were competent to advise, to recommend a crop suitable to the soil, there might have been a serious shake of the head and advice intimating that it had better be left alone. There are in every country tens of thousands of acres of soil, almost infertile, which might be converted into fertile properties by the aid of present scientific knowledge. In Germany sands and peats of almost a barren character are now under profitable cultivation, and in some cases details have been published showing how this work has been accomplished. Lime has been employed in the decomposition of peat. To this phosphoric acid, and if necessary potash, has been added, and crops have been grown and consumed upon the soil, thereby adding a form of organic matter which was advantageous at the outset, and returning the fertilising properties which had assisted in their growth. On sands leguminous crops, grown by the aid of phosphatic manures and potash, have obtained free nitrogen and have been either consumed upon the soil or ploughed in to its immense advantage. A crop of two tons of clover hay removes in the form of mineral matter 83lbs. of potash, 90lbs. of lime, and 24lbs. of phosphoric acid, in addition to 102lbs. of nitrogen. Now, assuming that a soil, such as an almost barren sand, is enabled by the means we have indicated to produce such a crop, it is in its first year enriched with this large quantity of nitrogen plus an almost equal amount per acre present in the roots. This is actually more

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than three times sufficient to provide the nitrogen required to produce a thirty-bushel crop of wheat, which is the average yield of this country, or a forty-bushel crop of barley. The phosphoric acid and potash, too, assuming that they are almost entirely returned to the soil if fed off by sheep, or entirely returned if ploughed in, would also be sufficient to produce either of these grain crops leaving a balance, and in the case of potash a considerable balance for the use of future crops. There is no end to the improvements which may be effected in soils by a thorough knowledge of their management and the system to be adopted in their cultivation.

## THE INFLUENCE OF WATER AND HEAT.

It has been stated, we believe by Schübler, that cultivated plants, whether grown in the tropics or the temperate zone, obtain an equal amount of heat between sowing and harvest in spite of the great difference in the period of growth. In tropical climates the number of rainy days is small but the rain which falls is considerable, whereas in temperate climates like that of Great Britain, although the number of days upon which rain falls is much larger, the rainfall itself is much smaller in quantity; in other words, while the rain decreases the further we get from the equator the number of rainy days increases. The rainfall in this country depends very largely upon the district. It is greater upon the western than upon the eastern coasts. It is much greater in mountainous districts than upon the plains. In the West of England the rainfall averages from 30 to 45 inches per annum; whereas in the eastern counties it varies from 20 to 38 inches. In mountainous districts it often exceeds 100 and has been known to reach even 150 inches. The amount of rainfall in the western part of our country depends upon the influence of the Atlantic Ocean, over which the passing winds are charged with a large excess of humidity as compared with the winds in the opposite quarter. In a statement made by the Registrar General many years ago, it was remarked that an inch deep of rain on an acre yielded 226,225lbs., or nearly 101 tons; thus for every hundredth of an inch of rainfall one ton of water falls upon every acre. We have personally tested this fact in estimating the quantity of rain which fell in a particular manure yard in one year. It amounted to 900 tons, a quantity so enormous that we were almost disposed to wonder whether any fertilising property remained in the manure, much of which was more or less exposed to this deluge. Liebig has shown that under certain conditions a piece of ground little more than half an acre in extent annually receives through the medium of rain upwards of 80lbs. of ammonia, equivalent to 65lbs. of nitrogen, which is a larger quantity than is found in a ton of hay, the produce of an average acre of land, so that we must look upon

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the rainfall not only as a great and valuable medium for the conveyance of the soluble matters of the soil to the plant, but as itself furnishing a most important increment of the most valuable of all fertilising matters.

Valuable as rain is upon a well-drained soil, or upon a soil which is sufficiently porous to allow it to pass through, wet land in which water remains stagnant is an extremely bad property. It will not under any conditions grow useful plants, although it may be covered with vegetation of an inferior and almost valueless nature. It is extremely bad for live animals, some of which acquire disorders through the consumption of living organisms which thrive upon the plants growing upon such soils, or serious disease of the feet, which is equally disastrous where thrift is essential. Not only is wet land uneconomical from its inability to grow crops and feed stock, but where it forms part of an occupation it entails a certain amount of labour which, if not thrown away entirely, adds considerably to the expense of cultivation. In normal soils rain only passes through under certain conditions, but nature has provided that when no rain appears the surface soil shall be watered from the stock of moisture beneath. This is accomplished by what is known as capillary action, and as fast as this action takes place evaporation goes on during the day, although moisture may be absorbed during the night. Bad as stagnant water is upon undrained soils, it is nevertheless the custom to irrigate land either by a system of drainage or by actually flooding it with water. The water, however, used under this system, unlike rain water, is not charged with ammonia or nitric acid, but it may be and usually is charged with a certain amount of organic matter which has some value to plant life. Professor Church has laid it down that irrigation is practised to make up for the irregular seasonal distribution of rain, or for a local deficiency of rainfall. Sometimes, he says, a particular crop is irrigated because the plant is of an aquatic or semi-aquatic nature, or to encourage early and rapid growth by the warmth of the water, or by the dissolved plant food which it contains; and he remarks that land may be enriched and its level raised by means of the deposit from the water. This last remark applies with great force to the warped lands of North Lincolnshire, where after several floodings from the water of the Humber a deposit is left, sometimes equal to a foot in thickness. This one fact suggests again how the character of a soil may be altered by a physical act. In this district, for example, we have seen soil which had practically little or no agricultural value, but which was so immensely improved that its yearly value was increased by more than 100 per cent in consequence of its ability to grow almost any kind of crop.

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The writer we have referred to attributes the usefulness of irrigation of water meadows to—

1. "The temperature of the water being rarely less than 10° Fahr. above freezing, the severity of frost in winter is thus obviated, and the growth, especially of the roots of grasses, is encouraged.

2. "Nourishment or plant food is actually brought on to the soil, by which it is absorbed and retained, both for the immediate and future use of vegetation.

3. "Solution and redistribution of the plant food, already present in the soil, occurs mainly through the solvent action of the carbonic acid gas present in a dissolved state in the irrigation water.

4. "Oxidation of any excess of organic matter in the soil, with consequent production of useful carbonic acid and nitrogen compounds, takes place through the dissolved oxygen in the water, sent on through the soil where the drainage is good; and

5. "Improvement of the grasses, and especially of the miscellaneous herbage of the meadows is promoted through the encouragement of some, at least, of the better species, and the extinction or reduction of mosses and of innutritious weeds."

On the plains of Lombardy irrigation is practised with extraordinary results. In some of our Australian Colonies land containing abundance of fertilising matter remains almost useless for want of water, and although a system of irrigation has been inaugurated upon a large scale, yet as compared with the size of the country requiring irrigation it is but a very small affair. In parts of Central North America, both in the United States and Canada, there are millions of acres of land which will without doubt eventually carry abundant crops, but which are now either quite idle or growing natural grasses without cultivation in consequence of insufficient rain. It is next to impossible to deal with the soil from the point of view of what crops it will grow without reference to climate and other physical conditions. If fertility depends upon the presence of plant foods in an available form, the power of the soil to grow crops depends upon the rainfall and the temperature. As we have shown by reference to the valleys of Derbyshire, the influence of the sun is all-important. It is recognised by those who have not made a study of science that land situated on a southern slope is in the most advantageous position. It may be remarked that under such conditions land is daily in a perpendicular line with the sun during a great part of the year, just as the land upon a plain would be with the sun overhead, and it is because it obtains the whole advantage which the rays of the sun afford that its position is so useful. Schübler has remarked with truth that a soil dark in colour and with small water-containing power is heated by the sun more quickly and more powerfully than

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a lighter soil with greater power of retaining water; a soil, too, which can hold much water can absorb the most moisture when it is dry, whereas when it is moist it can absorb the most oxygen. The stiffer it is the more slowly it dries; the heavier the soil, too, the more heat it can retain. Stiff soils which contain much water are the coldest and the most difficult to manage. Here, then, further considerations enter into the question of the crop-growing power of the soil. According to the same writer the following soils have the capacity for containing water to saturation in the quantities given:—

	Per cub. ft.		Per cub. ft.
	lbs.		lbs.
Silicious sand .....	27·3	Pure grey clay .....	48·3
Sandy clay .....	38·8	Garden mould .....	48·4
Lime clay .....	41·4	Arable soil .....	40·8
Brick clay .....	45·4	Humus .....	50·1

We have remarked upon Boussingault's statement that the duration of vegetation appears to be in the inverse ratio of the mean temperature, so that, he says, if we multiply the number of days during which a given plant grows in different climates by the mean temperature of each climate we obtain numbers that are nearly equal. Doubtless this fact has some bearing upon the curious difference between the climate of England and of parts of the United States such as Dakota, and of Canada such as Manitoba—both great wheat-growing states—which are infinitely more severe than the climate of Great Britain, although parts of Great Britain are much further distant from the equator. In both of these districts the winter season is of six to seven months' duration, the temperature falling on some occasions as low as 50° below zero. On the other hand, during the very short summer, with its light and intermittent frosts, the heat is intense, while the period devoted to the growth of wheat instead of being some ten months, as with us, is reduced to about four months. A fact like this has infinitely more bearing upon the capacity of soil to grow crops than the composition of the soil itself, which in the cases in question is altogether in favour of the American side. The colour of soil is usually owing to the presence of some important constituent. Oxide of iron influences the colour of red and yellow soils, chalk and light-coloured sand of the whiter soils, vegetable mould of the black soils, oxide of iron and abundant vegetable matter influences the brown soils; and as colour has a bearing upon heat the composition from this point of view is therefore a matter of some importance.

## WHERE CROPS GROW.

THERE is, perhaps, no variety of cultivated soil in Great Britain which does not grow every variety of crop known to British agriculture. It is probably true that, given a suitable climate, any

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crop can be adapted to any fertile local soil. Grain crops have their favourite districts, but it is the climate as well as the soil which renders these districts suitable. If we read the reports of the skilled men who have examined the various districts of some of our colonies we invariably find, as we subsequently find in the practice of the settlers, that it is climate which exerts its influence in adapting a soil to cultivation. The tropical sun which pours its rays on South Africa and parts of Australia is robbed of much of his undesirable heat when we approach the higher lands or the maritime districts, where so many kinds of crops are grown with success. At home we naturally look to the rich lowlands of the west where the rainfall is the heaviest for grass, and the eastern counties which are so much drier for grain crops. Nevertheless, both grass and grain are grown successfully in both districts. The mangel is universally grown in the south and the midlands, in soils of all classes, but it is not attempted upon the higher hills on account of the diminished temperature or the want of depth in the soil or from both reasons. Similarly it is seldom found in the northern part of the country, although it can be successfully grown in most years. Where, however, there is risk the farmer adopts some other plant instead, because he cannot afford to lose a crop. It is, however, not the soil but the climate which is responsible for the risk. The soil of Great Britain is suitable in almost all districts for the cultivation of maize, but our climate is too severe and our summers too short to ripen the crop, although maize may be grown as a green crop five years out of six with perfect success. We cannot produce tropical plants in spite of the suitability of our soils; and it would be folly to attempt to grow tobacco or wine, tea or coffee, sugarcane or rice, because circumstances do not combine to enable us to do so with success. We must remember, then, that as regards plant life in general climate is the factor which it is necessary to discuss. We can make almost any soil suitable to almost any crop we need, but we cannot alter climatic conditions unless it be upon a small scale and under glass, or locally by drainage under certain recognised principles. There are some crops which, fortunately for man, grow successfully through a very wide range of temperatures, succeeding alike in the northern districts of Scandinavia and America and as far south as the Persian Gulf and the Red Sea, but the results are not equal to those obtained in temperate climates like our own. The black vegetable soils of Russia and Dakota are rich enough to produce abundant crops of almost any desirable kind of plant without the addition of manure, but we cannot alter the severity of the climates in which they are situated, consequently the occupiers are limited to a small number of plants, few of which can be grown without risk. British soils are of almost every kind, but cultivated crops are

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practically limited to the lowlands and the slopes of the lower hills, because of the unsuitability of the climate in the higher ranges. The plough has entered the soil of the Cotswolds, parts of the South-downs, and the wolds of the East Riding, but there are huge areas on the millstone grit, the mountain limestones and the Cambrian hills, of Derbyshire, Yorkshire, Cornwall, Cumberland, and Wales in particular, where cultivation in the form of tillage is impossible. Yet on almost all the higher ranges of our mountain systems there is sufficient plant life in the form of herbage to feed sheep, which seem to be the national production of the uncultivated surface of these regions. It often happens that the nature of the soil can be recognised when the formation upon which it rests is known, but it may happen that land upon the most desirable formations, such as the red sandstone, is inferior from persistent bad farming. Geological formation, however, is not always responsible for the soil of a given field, or even farm or district, which may be composed of glacial drift or alluvial deposit.

Having referred to the influence of climate into which light, and consequently the length of the day, enters, we may refer in detail to those crops which are necessary to the people.

*Wheat* will not ripen in our climate when it is sown at elevations of over a thousand feet. In North America, where, as in Dakota, Manitoba, and Assiniboia, the winters are long, six to seven months, and extremely severe, wheat is sown in spring, and often has no more than 100 to 120 days in which to ripen. In "Stephens's Book of the Farm" remarkable figures are quoted, in which it is shown that in Venezuela the same crop ripens in half the time necessary near Edinburgh, thus—

	Period of Growth.		Ave age Temperature.		
Venezuela .....	92	×	75.6°	=	6955°
Pruxillo .....	100	×	72.1°	=	7210°
Alsace .....	137	×	59.0°	=	8083°
Paris .....	160	×	56.0°	=	8960°
Edinburgh .....	182	×	47.4°	=	8625°

Thus, as we have remarked earlier, the degrees of heat necessary to ripen a crop are closely identical in countries of such different climates. It is quite possible that the actual difference shown may be in a measure owing to the existence of longer days, for growth is more rapid during sunlight, and maturity is consequently attained earlier. Extremes of heat and cold influence the yield of wheat, which is greatest in a mild climate, and yet quality is better in wheats grown in hotter climates than our own. Thus Californian wheats and the No. 1 hard grain of the States and Canada which ripens rapidly in great heat realise superior prices to the average samples of Great Britain. The straw of wheat is more

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considerable in quantity in temperate than in tropical climates. Wheat is said to relish stiff soils, and unquestionably the heaviest crops are grown upon such soils, yet we have seen heavy crops grown upon sands which blow away when carelessly managed, but great skill was necessarily developed in their cultivation. It may be fairly said, therefore, that wherever a deep tilth can be obtained and manure provided, ordinary conditions being present, a wheat crop can be produced.

*Oats.*—Like wheat, the oat is successfully cultivated in India, where frost is unknown, and in the North-West of Canada, where we have seen standing crops estimated at 100 bushels an acre. The oat thus grows over a very wide range of temperature, and it will flourish upon almost any cultivated soil. It is probably correct to say that oats are more productive in the colder than in the warmer climates, some varieties standing severe winters, others coming to maturity within the region of the midnight sun, where the season of daylight is short. In Great Britain, Scotland produces finer crops than England in spite of the greater severity of its climate. Taking Europe as an example, we find that the oat is more favoured in the colder countries; hardly recognised as a farm crop in the Peninsula, it is raised in Russia, Norway, and Sweden, as far north as 65°. We have seen the crop harvested in Norway so late that it was drying upon poles in the short day sun when the succeeding crop was being sown beside it. Oats prefer such soils as alluvial deposit, which are so often situated in a moist climate, a condition congenial to their growth. This moisture they obtain in the mountain districts of Scotland on soils otherwise unsuitable to their cultivation. They are often grown where in consequence of excessive moisture they cannot be successfully harvested, but fortunately oat hay is a food admirably adapted to stock. The thin dry soils of the south—sand, gravel, chalk, and detritus—especially those of the home and eastern counties, are least suitable to this crop; but to them may be added the stronger London, Oxford, and Kimmeridge clays of the south-western counties, where grass is the chief produce. Wheat comes to us from almost all the agricultural countries of the world, but the limits of profitable oat cultivation are exhibited by the countries which export to us, Russia, Sweden, Germany, and North America, the two former countries sending over four-fifths of what we import.

*Barley* was grown by the ancient Jews, Greeks, and Romans, and it is to-day a plant which is grown for export in hot countries much more extensively than in cold countries. Nevertheless, as we import from twenty-two countries tropical and sub-arctic, it is clear that barley is also very tolerant in its climatic range. Barley grows with greater success in Lapland and Siberian Russia than



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wheat, a fact which is perfectly comprehensible when we remember that it grows and ripens much more rapidly. In England we have reaped crops which have had but little more than twelve weeks in which to grow, a period quite consistent with the short summers of the northern countries. The rapidity of growth of the barley crop accounts for the fact that in some climates two crops may be taken in a year, while in others it grows at a very great altitude, as in the Alps and the Andes. This fact also reminds us that the vine, which cannot be made productive in the open fields of Great Britain, thrives within sight of the Swiss glaciers and at an altitude far higher than many mountains in this country. Here, again, climate plays its part. Barley prefers soil of a lighter character than wheat and oats. For this reason it is used as a descriptive term as applied to certain soils which are known as "barley soils." Strong loams and clays are not adapted for this crop, the lias, Oxford, and London clays are therefore unsuitable, but from thin chalks and gravels to the medium loams all soils are suitable, including drifts, green sands, and oolites, excepting the clays referred to. Barley is a crop which may be grown for quantity in the heavier class of soils, or for quality in the lighter.

*Rye* is the crop of Northern Europe, indeed it provides for the bread of the people in those parts of the continent where the soil is dry and of an inferior quality. Moreover, it ripens so much earlier than other cereals that its cultivation from this point of view alone is of high importance in some countries. Rye is rightly regarded as one of the most valuable of all the crops of the soil, for on the poor sands of Germany and parts of Scandinavia it is the only cereal upon which reliance can be placed, while it is said to be also grown within the Polar regions as high as 67° N. lat. Rye grows with success upon almost all soils, if we except clays. In this country, where it is little grown, it might advantageously replace wheat on the lighter gravels and sands, and considering the value of its straw this change might result in a pecuniary gain to the farmer. On loams it is not likely to be sown, because its yield and value is not so great as that of the other cereals.

*Beans* are very largely imported into this country, but they are also largely grown upon the stiffer kinds of soil, which, like wheat, they prefer. It is an advantage to the grower occupying heavy land that he can grow three saleable corn crops in a rotation, and that, too, without excessively impoverishing the soil. The bean likes a tenacious soil, but although unlike most other plants it grows well upon such heavy land as the London and the lias clays, it thrives best upon the clay loams which, while providing tenacity are sufficiently porous to prevent water covering the plant, and rich to provide it with its necessary food. Beans are often grown on the

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lighter soils—gravels, for example—and even the rich vegetable soils so valuable for potatoes and many other crops, but the crop is always either risky or troublesome, failing altogether, or, if a successful plant, growing to haulm instead of seed.

*The Pea*, although belonging to the same order as the bean, has quite a different habit, but although the latter requires lime it is not so greedy as the pea, which revels on deep calcareous soil. A soil for peas must be dry, drained if it is not sufficiently porous, and it must contain a good supply of lime. The new red sandstone where lime is present provides an admirable soil, and the loams of medium texture are also most suitable. Clays and peats are avoided, but successful crops are often grown upon calcareous soils even though they possess a thin staple, and we have known them do well upon gravels. We may, however, take it that the medium rich calcareous loams are best adapted to the crop.

*Buckwheat* is a plant which is not grown in this country so much as it might be. There are plenty of southern farms comprising soils of a most inferior character, which do not produce successful crops once in five years, which would grow admirable crops of buckwheat. In Eastern and in many European and American countries this grain is grown as a bread-stuff, indeed across the English Channel the inhabitants of many parts of the North of France grow it for that purpose to-day. Buckwheat is one of the few plants which will grow and prosper on soils which will grow nothing else, and for this reason it should receive more attention. The worn-out, impoverished gravel will respond to it, and equally upon poor sands may it be grown with confidence. Dry soils may also be included in its programme. On the other hand, wet soils, whatever their character, cannot be utilised with success. Buckwheat does not like clays, but thrives upon all the lighter and medium soils if they are properly tilled.

*Flax* is an important plant, although from reasons which ought not to exist it is not largely grown in this country. It likes a dry, porous, and deep soil, and these conditions obtained it prefers the clean loams of the lighter or sandy class. Flax, however, grows upon almost any kind of soil. We have grown it over chalk with success, and in Ireland it is often grown upon peats (where, by-the-by, wild flax may often be found), gravels, and clays, and even moorland if well cultivated will respond to this plant. Wilson has given partial analyses of several of the best flax soils of Ireland and Belgium, and in every case silica was present in large quantities, while alumina, ranging from  $5\frac{1}{4}$  to 8.9 per cent in the Irish, was present only to the extent of from 1.1 to 1.5 per cent in the Belgian soils. Again, the Irish soils, as might be expected, contained more moisture as well as more organic matter. For flax growing the soil should be rich and in fine condition.

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*Hemp*, although adapted to our soil and climate, is not grown in this country to any extent worthy of mention. It prefers alluvial or rich vegetable soils which contain plenty of moisture, although it objects to actually wet land. Rich loams, the black soils of the fens and marshes, the warped lands of the East, are all adapted to the requirements of this plant, but it will not thrive upon the lighter thin, dry soils.

*The Potato* grows in almost all soils and climates, but it has its preferences. The sandy loams and alluvial deposits are those which it prefers and which enable growers to produce the best samples. What the growers occupying soils of a less suitable character lose in quality, however they often gain in quantity. It is hardly possible to name a soil which can be tilled for potato cultivation which will not successfully grow the popular tuber. It demands a free, rich soil, thoroughly porous, and yet sufficiently retentive to supply it with abundant moisture. What nature has denied to many growers in the condition of the soil they have managed to provide by cultivation and manure. The warped lands of North Lincolnshire, the sandy loams of the Vale of York, the rich lighter loams of Scotland, and the better class of peats which are well dressed with lime, all produce good crops. On wet or heavy soils the crops are smaller and more liable to disease. The heavy clays, the thin gravels, and chalks are all unsuitable; but even on these the workman grows the ubiquitous plant, which responds to the attention of man in the tropics and even in hail of the arctic circle.

*The Mangel* is one of the most valuable of agricultural plants, but its success depends so much upon climate that it is but little cultivated in the northern half of these islands. The mangel of the farm is closely allied to the sugar beet, and the value of the latter is a fair indication of the value of the former as a food for stock. Remembering that the mangel is a summer plant, thriving best in a mild climate, we have to remark that although it is grown over a wide range of soils it has a very marked preference for the lighter clay loams and for the medium soils, as opposed to the extreme light thin soils on the one hand and the heavy clays on the other. So gross a feeder as the mangel needs an enormous quantity of food, and a soil capable of supplying it in a suitable condition.

*Turnips* grow on a variety of soils, and they, too, have their preferences; but these preferences are rather of a physical than of a mechanical character. A dry, friable, porous soil of deep staple is essential, for the turnip objects to wet soils, and yet it needs a climate providing plenty of moisture. Turnips, while thriving best upon the fine loams easily pulverised by good cultivation, are grown upon thin gravels, chalks, and even sands with success; but this success depends upon both climatic help and good manuring. The

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turnip, in a word, is one of those plants which can be grown on almost any soil where skill and manure are applied in its cultivation.

The following minute analysis of a Scotch soil, included by Mr. James Macdonald in his edition of "Stephens's Book of the Farm," and made by Dr. Anderson, will be found extremely valuable. It is described as "a good arable sandy loam, well fitted for the growth of turnips in Dumbartonshire":—

Soluble in water.	Organic matter .....	5.53
	Peroxide of iron .....	.37
	Lime .....	.36
	Magnesia .....	.49
	Potash .....	1.25
	Chloride of sodium .....	2.91
	Phosphoric acid .....	.72
	Sulphuric acid .....	4.43
	Silicic acid .....	8.02
		<hr/> 24.08
	Peroxide of iron .....	427.02
	Alumina .....	260.15
	Lime .....	33.77
	Magnesia .....	27.71
	Potash .....	221.05
	Soda .....	3.48
	Chloride of sodium .....	20.66
	Phosphoric acid .....	37.77
	Sulphuric acid .....	5.94
	Silicic acid .....	52.68
	Organic matter .....	576.61
	Insoluble silicate .....	7,988.62
	Moisture .....	323.46
		<hr/> 9,978.92

*Hops* are confined to districts, and in this country Kent is the most favoured. Among the most favoured soils are those which have been formed from the upper green sand and the deep rich, porous loams. In the investigation, details of which were published in the journal of the Royal Agricultural Society, the following analysis of a good hop soil was given:—

Insoluble siliceous matter (sand) .....	19.64
Soluble silica .....	6.45
Phosphoric acid .....	1.82
Carbonic acid .....	28.98
Lime .....	37.71
Magnesia .....	.68
Oxide of iron and alumina .....	3.04
	<hr/> 98.32

## SOIL—AND WHAT IT WILL GROW.

This was described as a grey marl lying directly upon a green stratum. This stratum, which is said to have yielded many fossils, gave after their removal:—

Insoluble siliceous matter .....	32·81
Soluble silica .....	29·14
Phosphoric acid .....	6·61
Carbonic acid .....	2·30
Lime .....	9·53
Magnesia .....	1·97
Oxide of iron and alumina .....	11·46
Potash .....	3·10
	<hr/>
	96·92

Here two most important soil constituents—phosphoric acid and potash—were present in great abundance, needing only organic matter to make it of much greater value; but this it acquired as it came under the influence of the farmer. In one of the best Kentish soils a high percentage of the same two mineral soil constituents was found. In other districts hops are grown upon the red sandstone formations with great success, but much again depends upon the climate.

*Grass.*—So large a portion of the cultivated area of an agricultural country is devoted to grass that a few words are necessary with reference to the soils on which it thrives best. Grass pastures and meadows are chiefly composed of a mixture of various kinds of plant which include the grasses proper, members of the order *Gramineæ*, and clovers belonging to the *Leguminosæ*. Wild herbs are also found in greater or lesser variety in accordance with the nature of the soil. Thus we find in clays, loams, and marls, rye grass, cocksfoot, foxtail, meadow fescue, hard fescue, tall fescue, timothy or catstail, white clover, perennial red clover, alsike clover, trefoil. On the higher soils of this character sheep's fescue and dogstail are added, and in the loams, marls, and limestones smooth-stalked meadow grass. On alluvial deposits soft brome is often found in abundance, with sheep's parsley on loams and brashes, yarrow on loams and sands. On the clays the poas, fescues, agrostis, and buttercup may be recognised as natural products. On peat, ling, heath, and such other weeds as the thistle and spotted orchis. On wet or marshy vegetable soils, rushes, flags, sedges, and cotton grass diminish the grass area, which contains fewer of the better grasses and more of the worthless varieties. On gravels, hair grass, sheep's sorrel, bent grass, and soft bromes are found. The clovers are characteristic of rich soils, especially those of the heavier classes, while the great oxeye is found on very poor soils. Temporary grass crops become intermixed with thistles, docks, sorrel, and knot grass upon gravels, and with wild camomile, corn cockle, and butter-

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cup on cultivated clays. Weeds are everywhere indicative of the nature or condition of the soil, and the poorer it is the more readily is it covered with weeds to the exclusion of cultivated grasses. The heavier soils are most adapted to grass and clover, because of their retentive nature. All these small plants thrive best on a firm tenacious soil, and fail most often upon light soils. They also prefer the moist climates of the west to the dryer climate of the eastern counties. In the experimental work conducted by the Bath and West of England Society, analyses of soils upon which the cows which produced the milk used in the investigations were fed, were made by the Society's chemist, Dr. Voelcker, with the following results:—

COMPOSITION OF PASTURE SOILS NEAR FROME.

	No. 1.	No. 2.	No. 3	No. 4.	No. 5.
*Organic matter and water of combination .....	17·12	15·13	12·95	13·87	14·43
Oxide of iron .....	3·83	5·61	1·56	1 88	6·64
Alumina .....	5·45	7 28	10·31	14·59	8·41
Lime .....	10·32	2·07	·96	4·56	2 25
Magnesia .....	·77	·55	·37	·36	·72
Potash .....	·77	·55	·65	·65	·65
Soda .....	·16	·16	·30	79	·20
Phosphoric acid .....	·29	·24	·32	·27	·25
Sulphuric acid .....	23	·14	·24	·13	·13
Chlorine .....	·13	trace.	·002	01	trace.
Carbonic acid .....	6·60	·60	·23	2·14	95
Insoluble silicate and sand... ..	54·33	67·67	72 11	60·75	65·37
	100 00	100·00	100·00	100·00	100·00
*Containing nitrogen.....	·77	·54	·51	51	·54

These soils were described as rich brown heavy loams, approaching in No. 1 a marl, containing discernible pieces of lime in Nos. 1, 2, and 4. They were said to be extremely rich, their richness being owing to the nitrogen in the organic matter, which Dr. Voelcker said was larger in quantity than would be found in any arable soil, or in any soil which had not been down in pasture a very long time. There was abundance of lime in every case, with large proportions of iron and alumina, while they were in each case unusually rich in potash, phosphoric acid, and magnesia, the sample containing the smallest quantity of phosphoric acid showing quite double what is met with in good arable soils. These soils were in a word exceptionally fine, and yet the cow parsnip, the buttercup, the large plaintain, the daisy, the oxeye, and the dandelion were found among the grasses.

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Grasses are so numerous and so varied that it is impossible to refer to their preferences in any but a limited sense. In the northern part of the Continent most of the varieties cultivated in Great Britain are recognised, but even in France there are some grasses, which are regarded as weeds in this country, which are grown systematically, such as *holcus lanatus*, or Yorkshire fog. As we approach the Alpine regions and the grassy plains of Italy and the South, however, we find varieties which are not cultivated in Great Britain at all, and the remark applies in a more extended sense to America and many other countries.

*Cabbage* in its various varieties is one of the most important crops of all temperate countries. It has the faculty of growing to an enormous size, and the tiller of the soil is able to extract an enormous amount of food from an acre devoted to this plant. Cabbage will grow on almost any soil with a staple, if it is well fed with manure, but it prefers the stiffer soils to those which are of a lighter character. Thus the heavier loams produce a much heavier crop than the sands, gravels, and chalks; at the same time, soils of each of these kinds with sufficient depth will produce an enormous weight of cabbage when really well tilled. The cabbage must have plenty of moisture, and for this reason the better class of peaty soils, alluvials, and heavy loams are all suitable, whereas many other soils which might be utilised are unable to carry a crop on account of their dryness and altitude.

*Carrots* and *Parsnips* demand deep soils, the former thriving best in the sandy loams, alluvial deposits, and rich vegetable moulds prevalent in favoured districts. The parsnip will grow successfully in heavier soils than the carrot, but both like an open porous texture, and plenty of depth.

*Lucerne*, one of the most favoured forage plants known in the world, is not grown in this country so generally as it might be. It is a plant requiring a soil which is rich in lime, which is not light in character or too heavy, and which has great depth. No cultivated plant with which we are acquainted sends its roots to such a depth. We have seen them 19 feet below the surface, and instances have been quoted in which they have reached 30 feet.

*Sainfoin*, if not so valuable as lucerne, is nevertheless a most economic plant adapted to the chalk hills of sheep districts. It withstands drought but not so well as lucerne, provides a very rich fodder relished by all classes of cattle, and is one of those prolific plants which are utilised in the manufacture of mutton. Neither of these two favourite leguminous crops are sufficiently hardy for cultivation in severe climates, but while both succeed in soils rich in lime provided they are dry, sainfoin has a distinct preference for the lighter soils as compared with the heavier.

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The *Vetch*, or *Tare*, belonging to the same order as the two preceding plants, is one of the most valuable we possess in Great Britain, providing with little trouble an abundant crop of fodder suited to the requirements of domestic animals of all kinds kept on the farm. This plant, growing almost anywhere, does not demand either so much depth or quality as many plants. It is hardy in all parts of England, grows well on clays, loams, gravels, and chalks of the better class, thriving best of all on those soils which are in high condition. The soil, however, must be drained naturally or artificially, at the same time the vetch likes plenty of moisture.

We have thus far dealt with the cultivated plants of Great Britain, so many of which are grown in other countries for export to us. It is a curious fact that even where climate permits of the cultivation of many of these crops their character is changed to a large extent by its influence. We have already referred to wheat. We may also remark that in parts of Canada and New Zealand, as in Scotland, oats of very high quality are produced which compare most advantageously with the oats sent us from Russia and Sweden. Few countries, however, can produce the kind mellow barleys which are grown in Great Britain; again it is not the soil alone which accounts for this, but soil and climate. British beans and peas are perhaps the best in the world for similar reasons. Forage crops and roots are more abundant with us because we are assisted by the suitability of our moist and mild atmosphere. Our grasses are unexcelled in the northern hemisphere, and in a word there is scarcely a British-grown cultivated plant which is not grown to greater perfection by our people than by those of any other country. Nor is this owing alone to skill or soil but to both, assisted by climate.

## TROPICAL PLANTS.

In the article which appeared in the "Annual" a year ago, we showed that it was possible for the people living under the British flag to grow every crop, every food required by the population of the Empire. Tea and coffee, tobacco and sugar, rice and maize, wine and cotton can alike be produced where the climatic conditions exist. If we examine the tobacco soils of America, the wine soils of France and Germany, and the rice soils of India, we find that they differ in no essential degree from many similar soils at home or in our colonies, but the temperature is quite another thing. We refer to a few of these plants that it may be seen how partial is the influence of the soil, and how possible it would be to grow almost every crop in Great Britain if our climate were suitable. Climate is often local. A country which is near the equator, and which on a level with the sea is extremely hot, may include mountains with every degree of



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temperature between zero and the temperature of the plains. In such a case vegetation may, where the hand of man directs it, range between the tropical plants and those of the temperate zone. Similarly in our own country climate is influenced by the proximity of woods, marshes, and mountains, which either intercept the rays of the sun or which affect the temperature of the surrounding soil in consequence of the coolness of the vapours which are prevalent. In a minor degree the soil influences the temperature, the dry sands of one district causing a greater amount of heat to prevail than the wet clays of another. Johnston has pointed out how temperature influences vegetation. Thus—

	Latitude.		Mean. temp.
	Equator to		max temp. to
<i>Equatorial Zone.</i> —Palms and bananas ..	15°	....	78°
<i>Tropical Zone.</i> —Trees, ferns, figs.....	15° to 25°	....	78° to 73°
<i>Sub-Tropical Zone.</i> —Myrtles and laurels.	25° „ 34°	..	73° „ 62°
<i>Warm Temperate Zone.</i> —Evergreens ....	34° „ 45°	....	62° „ 53°
<i>Cold Temperate Zone.</i> —European trees ..	45° „ 58°	....	53° „ 42°
<i>Sub-Arctic Zone.</i> —Pines .....	58° „ 67°	....	42° „ 39°
<i>Arctic Zone.</i> —Rhododendrons .....	67° „ 72°	....	32° „ 28°
<i>Polar Zone.</i> —Alpine plants .....	72° „ 90°	....	16° „ 1°

The above references are only indications of a wider range of plants which grow in each zone, many of which will occur to every reader who has the most elementary acquaintance with European plants and the produce of the tropics.

*Tobacco* is a plant which is rich in mineral matter, especially potash and lime, hence a soil containing abundance of these materials together with plenty of humus or organic matter in a condition to be gradually utilised by the roots is necessary. Some of the best tobacco-growing soil in the world is a moderately light sandy loam, which is at the same time porous and rich. All the lighter loams and the alluvial soils are suitable for tobacco, and we have seen it growing on the richest class of moulds largely composed of vegetable matter. A great deal of tobacco is grown in America upon soil which has not long been in cultivation, and which was previously prairie land, containing an enormous quantity of humus. Fairly hardy as the plant is, although it has been experimentally grown in this country and is now grown in some of the northern countries of Europe, high quality is not produced. It is a native of the tropics, and is influenced perhaps more by climate than by soil.

*Tea.*—Experienced growers describe a typical tea soil as a light loam, or a loam in which clay, humus, and sand are present in fairly large quantities. A tea soil must be dry and deep, with a stiffish subsoil, but here again we are met with the curious fact that tea, like many of our own British plants, can be grown with success upon soils

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of great variety so long as they possess plenty of humus, which may be provided artificially if it is not present as the accumulation of ages. Climate again comes in, however, for the tea plant requires abundant moisture and warmth.

*Coffee* is said to grow in almost any soil between the two extremes of heavy clay and poor dry sand. Loam, however, is preferred so long as it has plenty of staple to provide food for the long root of the coffee tree. It is said that coffee often produces an abundant crop on dry soils.

*Cacao*.—Like the coffee and the tea plants, the cacao also has a long root, necessitating a deep staple. This plant thrives in alluvial deposit and the richer soils produced from rocks of volcanic origin. It objects to the heavier clays, but thrives on loams of the richer class.

*Sugar Cane*.—All planters of experience declare that the sugar cane will grow in soils of almost every class. There are seasons when some species, such as the Chinese sorghum cane, will reach considerable growth in this country, and in one the writer grew an extraordinary crop which was very rich in sugar. In those countries where sugar is produced the cane is grown upon soils of almost all kinds, but it produces the most satisfactory results on alluvial soils and the richer loams and loamy clays. Lime is an essential ingredient of a soil intended for the production of this crop. But for climate the sugar cane might be grown in this country, inasmuch as there are many soils suitable for its production, but, like many other tropical plants, it prefers the very warm, humid atmosphere which is found in many of our own colonies. It also thrives better on the sheltered lowlands than on the more exposed soils of the hills.

*The Orange*.—An experienced Florida grower recently pointed out to the writer that the most productive soil in his State was of a rich black vegetable character; nevertheless, the orange tree is productive in soils of almost all classes provided always that they are dry and deep, for the roots penetrate into the earth to a very considerable depth. It is an undoubted fact that a soil suitable for this plant to grow at its best must be well provided with humus.

*Ginger* reaches its greatest perfection upon moist rich soils of a medium character, more especially loams containing abundance of humus. It objects to extremely dry, thin, heavy, or sandy soils.

*The Nutmeg* prefers the lighter loams and alluvial deposits. It is also found on loams rich in humus, but objects to both wet and excessively dry soils.

*Pepper* has a very wide range of soils, but they must be well drained and of medium character, neither a heavy clay nor a hot thin sand. The rich alluvial soils which are often found in tropical climates are excellent for the purposes of its growth.

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*Rice* prefers a clayey sand or a sand in which a moderate proportion of clay is present. It delights in moisture and in great heat, at the same time that it prefers a soil of free texture which the sand provides, the clay giving the necessary retentive power. Rice is largely grown on irrigated soils.

*Tapioca* is the product of the cassava plant, which grows on rich loams of the lighter class if well drained under heavy manuring. Greedy of food, cassava needs high cultivation, but it demands a dry, warm climate, which is not provided in this country.

*Arrowroot* also delights in light sandy loams which are free from stagnant water and have a porous subsoil.

The plants we have referred to under this heading are sufficient for our purpose. The soils upon which they grow practically show that climate alone prevents their being produced in Great Britain. We have in these islands, as a matter of fact, soils adapted to every known economical plant, but, as we have pointed out already, climate alone prevents the cultivation of those crops which demand heat and other conditions found only in tropical and sub-tropical climates.

It has been mentioned by an able writer in "The Book of the Farm," in connection with the subject of the indication of soils by the weeds growing upon them, that ragweed denotes a deep vegetable soil, wild thyme a thin vegetable soil, clover and wild vetches good vegetable soils; the dry soils are indicated by the mouse-eared hawkweed, purge flax, and autumn hawkbit, and very dry soils by the yellow bedstraw; that the presence of moisture below a soil is indicated by the yellow iris, the cuckoo flower or ladies' smock, the ragged robin, the purple dead nettle, and the smooth naked horse tail; that a favourable subsoil, often contrary to expectation, is denoted by furze or gorse, and an unfavourable one by the broom plant; that a soil rich in condition is recognised by the common chickweed and the common fumitory, and a poor soil by the great oxeye; and the presence of peat by the spotted bearded orchis. The first volume of this work may be referred to by readers who desire to pursue this matter further, numerous lists of plants being given which indicate not only the classes of soil but their particular condition.

## SOILS IN SOME BRITISH COUNTIES.

A FEW references to the soils of different counties will be sufficient to show how diverse is the crop-growing character even in this comparatively small country, and yet how similar in many respects is the range of plants under cultivation. Growers upon different soils in different climates manage to achieve the same, or nearly the same, results by the exercise of skill and good management. Mr. A. T. Matthews says that in Surrey large tracts of heath run from east to west along the ridges of the chalk hills, those in the

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west expanding and becoming irreclaimable moorlands. In the Weald there is a cold retentive clay stretching along the southern border. This, however, is not a uniform soil, some being of really high quality and growing excellent crops of wheat, hops, and clover, and carrying good pastures; much, however, is extremely poor and costly to cultivate, for which reason it has been laid down to grass. The best land in the county is the deep sandy loam resting upon sandstone. Upon this soil first-rate barley, turnips, clover, and wheat, and almost every agricultural crop is grown. In another part of the county is a large tract of clay streaked with sandy loam. From the northern borders of this clay up to the Thames the soil is chiefly sand, intermixed on the banks of the Mole, the Wey, and the Wandle with loam and clay, enabling the market gardener of the district to conduct an excellent business. In this district lavender, peppermint, wormwood, and camomile are all extensively cultivated.

In the sister county of Kent, the Weald, as it is termed, chiefly consists of strong, poor clay, upon which wheat, oats, beans, and hops are grown in accordance with the system of cultivation adopted and the improvement which has been effected in the soil. Near the Medway are low-lying, deep loams, with a staple from four to nine feet in thickness. Here hops, fruit, roots, and grain crops are grown in abundance, more especially during showery seasons. A third class of soil famous in Kent is a mixture of clay and sand, the former predominating, which binds seriously in wet weather during which it must not be touched. There is also a soil which is excessively hungry, and which has a gravel subsoil. With heavy manuring this will grow grain, roots, and hops well, but in dry seasons it is not productive.

Dorset, a leading southern agricultural county, contains a great deal of excellent land, much of which is a gravelly loam on a chalk subsoil. This, and a reddish loam of deep texture, is the best the county can produce where it is dry and healthy. Some Dorset gravels, however, although providing excellent food for cattle and sheep, burn during hot weather when they are not productive. The best lands run to some 25,000 acres in extent. With a wide diversity of soils between good and bad Dorset is able to produce grain, roots, sheep, and milk in abundant quantities.

In Derbyshire the best soils are those of the valleys of the Dove and Trent, the former extending from Tissington by Sudbury and up to the junction of the Dove with the Trent. The land in the valley of the Derwent is also of excellent quality. It varies from a light to a strong loam, the light loams being in the Trent valley and the stronger loams in the Dove valley. Most of this land is pasture and meadow, but small quantities of wheat, together with oats, barley, and roots, are grown in some instances.

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In Gloucestershire, which in some respects resembles Derbyshire, a cattle and milk producing county, the best soils are the clays and alluvial deposits near the river Severn. Grass is the principal product, and beans and grain are grown, although roots are liable to mildew in the lower soils. Here the influence of climate is felt, and this rules the agricultural system of the county.

In the counties of Berkshire and Oxon, some of the best soils are of a deep loam on gravel subsoil and green sand. These are chiefly found in the Thames valley. On one class of soils barley and oats are chiefly grown and sheep fed, while on the other some of the finest wheat and beans in the country are produced.

Leicestershire includes a typical cheese-making district, but here again the soils are extremely varied. The best permanent pasture (and it is of a very high quality) is in what is known as the Harborough district, where oxen are easily fed on grass alone. In another part of the county, embracing some 20,000 acres, soils are deep and contain a very large proportion of humus on a clay subsoil. Again, in another district a free loam with plenty of staple covers some 16,000 acres. This is good pasture but does not possess the rich feeding properties of the grass in the first-named district. Between Leicester and Loughborough excellent grain, roots, potato, and clover crops are grown on an extremely rich soil. Curiously the land on which Stilton cheese is produced is mainly of second-rate quality and generally heavy. In the north-eastern part of the county a great deal of soil rests upon ironstone, while in the Charnwood Forest district to the north-west the land is thin and weak. In the south and south-west mixed farming is conducted and flat cheese made. Here the grass is of second-rate quality.

Crossing to Lincolnshire, which includes some of the best land in Great Britain, we find that in the Kirton district is a very fertile, deep rich dark loam, which grows some of the best potatoes sent to the London market. In the northern part of the county the same crop is grown upon the red soil, which produces similar quantities of a better quality of potatoes, second only to those which are grown in the fine potato soils near Dunbar. The Lincolnshire Wolds are more suited for barley and turnips; good wheat is also grown. The subsoil is chalk, with the result that the land is maintained both moist and cool, whereas on the oolite formation the soil burns in hot summers. Among the finest land in the county is that known as the Heath. This, although very thin, is especially adapted for the growth of barley, and as much as 50s. a quarter has been paid for the fine qualities grown here by the chief Burton brewers. In the warped district, which includes some of the very richest land known and lying on the banks of the Trent, are some 20,000 acres in what is known as the Isle of Axholme. This soil reaches into

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Yorkshire on the Ouse, and produces fabulous crops in most years. There is also a smaller district in the east of the county in which are very fine pastures, which have been known to feed an eighty-stone bullock and a sheep to the acre.

The Yorkshire district includes almost all classes of soil, as it also includes every class of farming known in Great Britain. In the Holderness district in the south-east of the county about 370 square miles is included, alluvial and boulder clay growing wheat, beans, clover, and potatoes. North of this district are the Wolds, some 376 square miles. Here the soil is light on a chalk subsoil, growing barley, turnips, seeds, and wheat. In another district on the oolite formation, about 1,000 miles square, the soil is extremely diversified, and the crops are various in consequence, hill and dale, occasional alluvial deposit, with medium soils of several classes. In the Vale of York is the finest land in the county, on the new red sandstone, about 1,150 miles square, producing every variety of crop in the highest quality. The best land in the north of the county is in the Vale of the Tees and in the Thirsk district. In this district is some of the finest farming in Great Britain. The highest type of cattle, sheep, and horses, and some of the finest crops of roots and grain are grown. From the south of the county a narrow strip of magnesium limestone runs nearly as far as Bedale. This is about 270 miles square, producing varied crops. About a third of Yorkshire is mountain limestone and silurian, and is chiefly covered with grass, sheep being fed on the higher portions and cattle in the vales.

One type of a Southern hill county must suffice. The Southdowns comprise a large portion of the county of Sussex, and these are chiefly chalk, and grow the well-known Southdown sheep. The best arable lands in the county are (1) south of the Southdowns between Lancing and Chichester; (2) the arable soils adjoining the rivers and in the valleys through which these rivers run, such as the Ouse, the Cuckmere, the Arun, and the Adur; (3) the arable soils north of the Southdowns and running from a quarter to three-quarters of a mile away. The best soils of the county are chiefly of a strong loam or alluvial character, but among the last named, north of the Southdowns is a good stretch of black vegetable soil lying on chalk, but it is expensive to till. The chief crops grown on these soils are wheat, beans, and roots.

Each county so far named is famous for some specialité, but that specialité is practically owing to the system followed on particular parts of the county, *i.e.*, on particular soils. Thus the Southdowns of Sussex are really the produce of the Downs themselves. The fruit and hops of Kent are the produce of particular districts, the

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larger portion of the county being ill-adapted to either crop, and remarks of this kind in a modified form are applicable to every other county in the country.

One of the chief milk-selling counties of England is Bucks, in which is the famous rich Vale of Aylesbury, where the soil is a rich dark loam upon a clay subsoil. There are also fine loams on gravel, but in dry years they are said to burn. The best arable soils are at the foot of the Chiltern Hills, and they are capable of growing every description of grain crop with success. This soil is a dark or sometimes grey loam upon clay, while others are upon gravel. Much of this soil is said to have been brought by the rains from the adjoining hills. This soil penetrates several miles into Herts, Oxon, and Berks. The hill land is of poor quality, yellow clay on chalk.

We are able to trace the influence of soil and climate in our cattle and sheep. The cattle of Wales, the West Highlands, and Kerry are adapted to the mountain pastures on which they live. Perhaps it would be correct to say that they have been made what they are by these mountain pastures and the particular climate. We have noticed that the fine cattle of the Swiss valleys deteriorate in size and form when confined to the mountains, and our Shorthorns and Herefords, accustomed to lowland pastures, would probably do the same. The sheep of the Scotch Highlands, the Welsh Hills, the mountain districts of Cumberland, Westmorland, Yorkshire, and Dartmoor, are all characteristic of a rough life, short poor grass, and cold or wet climate. The small ponies of Exmoor and the New Forest are the products of inferior food grown upon land of wretched quality, and generally deficient in lime. The shire horse is brought to the highest perfection on the richer soils of Lancashire, Lincolnshire, and Derbyshire.

These remarks must conclude with a short reference to Ireland. Clare is largely composed of mixed lime and brownstone, as an expert correspondent describes it. Much of the soil is cold clay, wet, and badly cultivated. Limerick is largely composed of limestone, and possesses abundance of rich feeding and dairy soil. It is said that in the Golden Vein a bullock and a sheep can be fed off by July 1, and another by November. There is little tillage, potatoes excepted, in this county. Waterford includes a great deal of waste mountain land, but there is some useful soil on each side of the railway from Limerick to Waterford. The soil of Tipperary is excellent, including both limestone and sandstone. Here milk is largely produced and sheep are grown. In the East Riding of Cork the soils produce milk, barley, roots, and grass. In the West Riding the soil is cold, wet, and inferior. Milk production is nevertheless followed. The best soils in the county are calcareous loams overlying the mountain limestone at its junction with the old red sandstone. They

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are found in the lower valley of the Lea and the valley of the Blackwater and its tributaries, and extend over an area of nearly 500 square miles. On these soils almost all crops succeed, although grass fails in very dry weather, when roots are uncertain. In Kerry the greater part of the soil is very inferior, on the mountains the herbage is either very deficient or absent altogether. Here grain crops are almost unknown.

The following analysis of a heavy soil in the Carse of Gowrie, which is taken from the "Highland Society's Transactions," shows the comparative composition of the soil and the subsoil:—

	Soil.		Subsoil.
Potash.....	2·800	....	2·176
Soda.....	1·439	....	1·045
Lime .....	830	....	1 275
Magnesia .....	1·020	....	1·393
Peroxide of iron .....	4·870	....	6·230
Sulphuric acid .....	·091	....	·039
Phosphoric acid .....	·240	....	·268
Carbonic acid.....	·050	....	—
Chlorine .....	·009	....	·020
Alumina .....	14·040	....	14·247
Silica .....	63·195	....	61·635
Organic matter .....	8·550	....	6 827
Water .....	2·700	....	4 575



## TECHNICAL EDUCATION AT HOME AND ABROAD.

BY J. HIRST HOLLOWELL.

WE are now hearing almost more about technical education than about education in general. The adjective is, of course, not greater than its noun, but the latter is perhaps in some danger of being depreciated or misunderstood. The right education of a people will draw out its whole capacity. Education cannot be complete if it has no reference to sciences, arts, and industries. It must train men for action, as well as for language and enumeration. It must seek to fit men for life as they will actually live it, whether in home or study, or in the widest range of their contact with nature, society, and duty.

We are so accustomed to think of all that happened in educational affairs previous to 1870 as necessarily faulty, that we are in danger of forgetting some favourable features prior to that date. We showed in a former article on "The Education of the People,"\* that free education was introduced into the numerous schools started at the beginning of the eighteenth century. It is of equal interest to remember that manual instruction also entered into that well-intentioned but inadequate scheme of school reform. Correct educational ideas have never been wholly wanting. What have been lacking have been the public spirit and the financial resources to give effect to such ideas.

If we turn to the Minutes of the Committee of Council on Education issued under Sir Robert Peel's Government in 1846, we find that the educational statesmen of that day were much in advance of their time in regard to manual and technical education. The most remarkable part of the Minutes was the offer of

### GRANTS FOR GARDEN, WORKSHOP, AND HOUSEWIFERY INSTRUCTION.

HERE was the promise—we cannot say the dawn—of the technical instruction of fifty years later. The wish of the framers of the Minutes was in part to get rid of the idea—so much more prevalent in England than in Scotland—that the cultivation of the mind is inconsistent with manual labour. In part also it was desired that school gardens might be worked as allotments by the scholars, so as to augment the income of the labourer's family. Then, again, it was hoped that workshops, as forming part of the school system, would

\* See pp. 319-344, "The Co-operative Wholesale Societies' Annual for 1892."

## TECHNICAL EDUCATION AT HOME AND ABROAD.

impart useful handicrafts to children in the crowded cities. Many of these children were growing up without means of honest or certain livelihood. Costermongering, errand-running, street duties of the most casual kind, vagrancy, tricks of cunning and theft were the employments amongst which thousands had to make their choice. For such children it was intended to make going to school the means of learning not only reading, writing, and arithmetic, but some calling like that of carpenter, smith, or cooper. Their lordships offered to assist the erection of buildings and the purchase of tools, and they even went so far as to promise gratuities to master workmen for every boy who should come to learn and practise a craft. They also offered assistance towards the domestic training of girls. Money would be given for a wash-house and kitchen, in order that household management might be taught in such branches as cookery, laundry-work, and family needlework. Mistresses who succeeded in giving this instruction were to be rewarded by gratuities. The idea was good, thoughtful, and even daring, but it bore little fruit. The difficulty then, as now, was to impart extra instruction in schools where the *ordinary* work is poorly done, where the staff is inferior, and where financial resources are slender.

Even in our own day, as we shall have occasion to see, technical instruction is impeded by defective elementary training of our young people. But what could be hoped for in the days that followed Mr. Slaney's Committee of the House of Commons in 1838? The state of education was deplorable. Sir James Kay-Shuttleworth remarks\* that the day school was "little more than a less efficient edition of the Sunday school. . . . The religious formularies, and the Bible itself, suffered therefore a painful desecration as the hornbooks of ignorant scholars, in charge of almost as ignorant teachers, who were for the most part under twelve or thirteen years of age." It was found, as the result of careful researches by the Manchester Statistical Society,† that the following was the educational condition of Liverpool, Manchester, Salford, Bury, and York :—

Population of the five towns....	533,000.
Children, ages 3 to 13, after deducting one-third .....	80,050
Children in tolerably good schools.....	21,957.
Children in worthless dame and common day schools ..	29,259
Children in no school at all.....	28,834

So that out of 80,050 children, no fewer than 58,093 were either quite untaught or were in schools of next to no value.

But we need not go so far back as 1843 to see that minutes may propose forms of superior instruction which schools are unable or

\* "Public Education," p. 58.

† "Report of Statistical Society of Manchester, 1837."

## TECHNICAL EDUCATION AT HOME AND ABROAD.

will refuse to touch. The Technical Instruction Act, 1889, is being applied in thousands of neighbourhoods to forms of elementary instruction, technical in only the vaguest sense, which might long since have been imparted under the Code in the day schools of the country. Take the Code in force only nine years ago (1885).

*Possibilities of Higher or Technical Instruction in 1885.*

There were then 18,761 schools inspected; 4,337,000 scholars were on the school registers. The Treasury spent £2,867,653 in grants to the schools, or 17s. per head for every scholar in average attendance, and the total cost of "school maintenance" was £6,630,623.\* What did this immense sum procure of science or technical results in the agricultural counties? What advantage was taken of the special grants offered for such subjects as elementary science and geography. Besides these subjects, the Education Department offered a grant of 4s. per scholar for every senior scholar who passed in a specific subject. These subjects were, even in 1885, of industrial, commercial, and technical value. Many of them are the very subjects which, as we shall see, the County Councils are now endeavouring to teach in the rural districts. Great cost is being incurred, and the machinery of our educational system is made highly complicated by this new development. But it ought to be known that years before the Technical Instruction Act was heard of the following subjects might have been taught in the day schools if the latter had been under proper management and in a position to command suitable buildings, appliances, and staff, viz.:—

Euclid and Mensuration.—To Book II. and the elements of mensuration.

Mechanics.—Descriptively and experimentally taught.

Animal Physiology, with diagrams and models.

Botany. Organs, structure, food, functions, fruits, germination.

Principles of Agriculture.—Plant food, tillage, manures, growth and variation of crops.

Chemistry.—Compounds, decomposition, the gases, pure air, carbon, metallic and non-metallic bodies, symbols and formulæ.

Sound, Light, and Heat.

Magnetism and Electricity.

Domestic Economy (girls).

Cookery.

Here we have subjects of what is now called "technical education," every one of which was then offered to the country as part of day school education for children in the upper standards. But such were the organisation and resources of the great mass of day schools that they let these interesting lines of teaching alone. The Minutes of 1846 hardly fell more flat. And simply because the Code

\* P. xlii., Blue Book, 1885-6.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

was drawn up by a responsible Government, while the neglect or application of its optional articles rested for the most part with private and irresponsible managers.

Let us take a few typical counties. Of course London, Birmingham, Leeds, Nottingham, Leicester, and Scotland generally, began to carry out parts of Schedule IV. of the Code, that is to teach subjects bearing upon our industrial and commercial interests, and fitted to develop the mind and aptitude of scholars. In 1886 Scotland made one pass in these subjects for every four of her older scholars. The School Board of Nottingham alone, as far back as the year 1884, made 1,114 passes in specific subjects. In

Euclid .....	23	Domestic Economy.....	222
Algebra .....	267	Cookery .....	227
Animal Physiology....	275	Agriculture.....	14
French.....	56	&c., &c.	

The following year its passes were 2,019, of which 444 were in mechanics. The best school boards would show somewhat similar figures. But not a few counties, in which public resources were not yet available for education, revealed a lamentable state of things.

Lincolnshire, with 595 schools, sent only 394 scholars to be examined in specifics.

Berkshire, with 236 schools, sent only 121 scholars.

Buckinghamshire, with 248 schools, sent only three scholars.

Dorsetshire, with 267 schools, sent only 18 scholars.

Herefordshire, with 192 schools, sent only 79 scholars.

Oxfordshire, with 253 schools, sent only 189 scholars.

Somerset, with 553 schools sent only 233 scholars.

Wilts, with 352 schools, sent only 205 scholars.

And even as late as 1892 (Table C, Report)—

Berkshire taught the more scientific and technical subjects to only 361 scholars out of 42,165.

Cheshire to 1,485 scholars out of 124,203.

Dorsetshire to 21 scholars out of 32,867.

Suffolk to 115 scholars out of 64,628.

Shropshire to 141 out of 40,140 (1 in 280).

Yorkshire has done better, viz, 1 in 50.

Lancashire, also 1 in 50.

Notts, better still, 1 in 28.

London, best of all, 1 in 21.

Such figures proved the utter incapacity of existing systems of management and support in the rural districts to carry education through its scientific and technical phases.

A ROYAL COMMISSION ON TECHNICAL EDUCATION WAS ISSUED BY  
HER MAJESTY IN 1881.

THE Commissioners appointed were Bernhard Samuelson, F.R.S.; Henry Enfield Roscoe, LL.D., F.R.S.; Philip Magnus, B.A., B.Sc.; John Slagg, Swire Smith, and William Woodall. Their very

## TECHNICAL EDUCATION AT HOME AND ABROAD.

valuable report was published in 1884. They visited France, Switzerland, Germany, Austria, Belgium, Holland, and Italy, calling at some sixty or seventy towns. At home, they visited educational establishments in over twenty English and Scotch towns. Ireland also was visited, and the interesting features of technical education there were noted. The secretary of the Royal Agricultural Society of Great Britain, Mr. H. M. Jenkins, was made a sub-commissioner with instructions to report on the teaching of agriculture in France, Germany, Denmark, Holland, and the United Kingdom. Mr. Wm. Mather, M.P., the well-known mechanical engineer of Salford, visited the United States and Canada and furnished information of great value on the general and technical education and industries of the former, and on primary education in the latter.

We shall hereafter pass in review some of the systems and institutions of technical education in various countries of the world. But it will be obvious that a voluminous report following on so competent an inquiry could not fail to exercise a marked effect upon public opinion and legislation. Accordingly, five years later, Parliament had the whole subject before it, and there was passed—

## THE TECHNICAL INSTRUCTION ACT, 1889 (Aug. 30).

THIS measure was not passed without prolonged discussion and important amendment. It was left to the very end of the session, and as originally drawn was not quite acceptable to an earnest section of politicians. It was alleged that it would further endow with public money the ordinary schools of the country, without introducing public control in any effective form. This view was repeatedly urged in Parliament and in the press. The vice-president of the Council, Sir W. Hart-Dyke, listened carefully to what was advanced by Mr. Channing and Mr. Picton on the one hand, and by technical experts like Mr. Mather and Mr. Woodall on the other, with the result that a compromise was agreed to, limiting the operation of the Act to scholars outside the standards of elementary schools. The following is an

## ANALYSIS OF THE ACT OF 1889.

SECTION 1 (1) enables a local authority to supply or aid the supply of technical or manual instruction out of the local rate. But (a) not to scholars in the elementary standards. Nor (b) may scholars in schools so aided be required to attend any religious institution, service, or observance. (c) Denominational catechisms and formularies are not to be taught in aided schools to scholars attending only for technical instruction under the Act. (d) School boards and other managers aided from the Department of Science and Art may request aid from the rates for technical instruction given in their

## TECHNICAL EDUCATION AT HOME AND ABROAD.

schools, and the local authority may grant it subject to the restrictions of the section. The local authority shall (e) be represented on the governing body in proportion to the aid given from the rates. Questions arising shall (f) be referred to the Department of Science and Art, but no aid shall be given to schools carried on for private profit. Nor (g) can the rate raised for any year exceed one penny in the pound. (2) Delegation of the powers of the local authority may be made to a committee consisting wholly or partly of members of the local authority, saving the power of raising a rate, &c. (3) The existing powers of school boards to give technical or manual instruction shall not be interfered with by this Act.

Section 4 (1) defines "local authority" as the council of any county or borough and any urban sanitary authority (Public Health Acts); (2) defines the term "local rate;" (3) allows parts of counties to be charged with expenses under the Act; (4) sets forth the manner in which county and borough councils and urban sanitary authorities may borrow money for the purposes of technical education.

Section 5 provides that managers shall render an account to the local authority, subject to audit, and that misapplied moneys be refunded.

Sections 6 and 7 give definitions of minor importance as to audit of accounts of urban sanitary authorities, and the application of the Act to Ireland.

Section 8 is of importance; it defines "technical instruction" in these terms:—

Instruction in the principles of science and art applicable to industries, and in the application of special branches of science and art to specific industries or employments. It shall not include teaching the practice of any trade or industry or employment, but, save as aforesaid, shall include instruction in the branches of science and art with respect to which grants are for the time being, made by the Department of Science and Art, and any other form of instruction (including modern languages and commercial and agricultural subjects) which may, for the time being, be sanctioned by that department by a minute laid before Parliament, and made on the representation of a local authority that such a form of instruction is required by the circumstances of its district. The expression "manual instruction" shall mean instruction in the use of tools, processes of agriculture, and modelling in clay, wood, or other material.

The Act does not extend to Scotland (Section 9).

Examination of the above digest of the Act will show its great importance, and also its leading defects. It is of great value as taking up the dropped thread of the Minutes of 1846 and both lengthening and strengthening it. It is an acknowledgment by the State that the curriculum of education, in the country districts especially, is thin and abstract, forming no sufficient preparation for the practical life of citizenship, industry, commerce, and art. It

## TECHNICAL EDUCATION AT HOME AND ABROAD.

also proves to demonstration that the widespread neglect of higher and technical subjects has been due to the absence of local educational authorities with control of public funds.

But the defects of the Act are glaring. 1. It left unhelped most of the children in the standards of elementary schools—that is to say, left them at the mercy of private and irresponsible management, intent on economical or other interests rather than on giving the child a generous all-round equipment for life. Thus in 1892 (p. 41, report for 1892–3), out of 2,179 boys, girls, or mixed schools in Lancashire, only 67 taught elementary science, and only 197 taught any specific subject. If this was so in Lancashire, what could we expect of counties like Wilts, Somerset, and Suffolk, where

	Boys' and Girls' Schools numbered:—	Schools Teaching Elementary Science:—
Wilts .....	383	18
Somerset .....	592	16
Suffolk .....	465	26
Lincoln .....	649	7
Oxford .....	284	10
Herts .....	247	3
Dorset .....	296	2
Salop .....	338	4
Northants .....	332	3
	3,586	89

2. The Technical Instruction Act of course left the management of elementary schools untouched. 3. It gave no authority to the councils to deal with elementary school buildings, or to appoint a better qualified school staff. 4. It created one more set of school authorities instead of consolidating those now existing. 5. It made an artificial distinction between the education called elementary and that called technical, for, as we have seen, the subjects sanctioned under Section 8 of the Act of 1889 are similar to those set out in Schedule IV. for elementary schools. 6. The Act as it stood was optional, and depended for its operation upon the ratepayer, who is by no means in all cases an enthusiast for education. 7. Further, its limit of one penny in the pound did not promise well. But an unexpected opportunity soon occurred of supplying its financial defects. Lord Salisbury's Government essayed to deal with the licensing question in 1890, and proposed to compensate publicans for the loss of their licenses. The Local Government Bill created a fund for this purpose by imposing new excise and customs duties on intoxicating liquors; but when the country had had time to consider compensation it was strongly condemned, and the Government hastened to withdraw it. At the same time, the scheme for raising

## TECHNICAL EDUCATION AT HOME AND ABROAD.

the money had received the sanction of the House of Commons and was now the law of the land. What was to be done? One man in Parliament did not hesitate. Mr. Arthur Acland, now (to the advantage of national education) vice-president of the Council, stepped into the breach and carried a motion that the moneys raised from the new customs and excise duties should be available for technical instruction. This decision shortly afterwards received effect in

## THE LOCAL TAXATION (CUSTOMS AND EXCISE) ACT., 1890.

THIS important measure is now in operation, and will prove the first step in great changes affecting our school system. Practically it brought some part of education in thousands of parishes under the control of local government for the first time. It did not do this in the most systematic, effective, or economical way, but it recognised principles which are bound to have progressive application. It at least took technical education out of the groove of a penny rate and placed at its service some three-quarters of a million sterling per annum. This made a great difference. Education rates would have come up slowly in the counties. Out of 128 local authorities which came under the Technical Instruction Act of 1889, only 62 have yet agreed to raise a rate, and the proceeds of this rating for 1892-3 were only £26,000 \*. In the county of Lancashire Blackburn, Clitheroe, Heywood, Manchester, Nelson, Rochdale, Southport, and Stalybridge resolved to levy a rate, but Preston, Liverpool, Bury, Oldham, Ashton, Accrington, Bolton, Wigan, and other places, made no sign.

## ANALYSIS OF LOCAL TAXATION ACT, 1890.

SECTION 1 (1) provides for police superannuation out of part (£300,000) of the new duties, and the distribution of the residue between county and borough funds. (2) Councils may vote such residue, or part thereof, to technical education over and above any amount raised by rate. (3) A county council may vote the money for technical education to town councils or other urban sanitary authority for this purpose. (4) The council for any county coming under the Welsh Intermediate Education Act, 1889, may apply towards intermediate and technical education, under that Act, both moneys received under the Local Taxation Act, 1890, and moneys raised under the Welsh Act before-mentioned.

Section 2 provides (1) that £40,000 of the Scotch share of the local taxation duties shall be for police superannuation; (2) that a sum of not more than £40,000 shall go towards free education in the compulsory standards in Scotland; and (3) that the residue, subject to the Pleuro-Pneumonia (Animals) Act, 1890, shall

\* Report of National Association for Technical Education, 1892-93, p. 6.



## TECHNICAL EDUCATION AT HOME AND ABROAD.

be distributed in aid of medical and sanitary supervision, or in relief of rates, provided, however, that councils may apply such residue to technical education within the meaning of the Technical Schools (Scotland) Act, 1887, in addition to sums paid under that Act.

Section 3 (1) (i.) devotes £75,000 of the Irish share of the duties to the Commissioners of Education in Ireland, to be distributed for the benefit of national schools in non-contributory unions, and to the guardians in contributory unions, subject to slight restrictions.

It is now our duty to consider two other important topics before we pass to the technical and manual education of foreign countries.

First, we will try to answer the question—*What is technical instruction?* Secondly, we will endeavour to exhibit the extent and chief forms of technical instruction in Great Britain and Ireland.

## THE NATURE AND ENDS OF TECHNICAL INSTRUCTION.

WE should bear in mind that the word technical is not the only name given to the kind of instruction covered by the expression. "*Manual instruction*" and "*industrial education*" are also used. The first two names are used interchangeably in the Report of the Royal Commissioners on Education for England and Wales, 1888 (chap. iii., part 4, final report). The report gives a definition of technical education very similar to that of the 8th section of the Technical Instruction Act, 1889. It is as follows:—

By technical instruction we understand instruction in those scientific or artistic principles which underlie the industrial occupations of the people, including especially handicrafts, manufactures, mining, and agricultural labour, as well as the manual practice involved in the application of those principles. . . . Instruction in drawing and elementary science is frequently and very properly regarded as part of technical education.

The Act of Parliament excludes the "teaching the practice of any trade, industry, or employment," but it will often be found impossible to avoid this when the principles underlying handicrafts are taught. It is certain that the leading object of many advocates of technical education is to improve the methods and products of industry, and thereby promote the growth of our commerce and wealth. That is a worthy and important end to keep in view. With the majority, it may appear to be the only end. But on this subject, as on others, there are conflicting schools of opinion. With some, manual instruction is desired on *educational* grounds alone. They tell us that it awakens intelligence in a boy or girl to be taught to work with the hands. They promote it, as they promote kindergarten, for its educative effect upon the child's mind and faculties. Froebel, in his "Education of Man" ("Die Menschenerziehung"), says:—

## TECHNICAL EDUCATION AT HOME AND ABROAD.

To learn a thing in life, and through doing, is much more developing, cultivating, and strengthening than to learn it merely through the verbal communication of ideas. Similarly, plastic material representation in life and through doing, united with thought and speech, is by far more developing and cultivating than the merely verbal communication of ideas. . . . For the purpose of teaching and instruction is to bring ever more *out* of a man rather than to put more and more *into* him.

Pestalozzi, born in 1746 (37 years before Froebel), taught similar views of education, though he did not carry them to the same length of application. Instruction, he taught, should never stop with ideas, but the child should have corresponding impressions of the senses, and be furnished with means of observation and experiment. "*What you can't do blindfold,*" he would say, "*you can't do at all.*"\*

Some have objected to schoolroom and workshop being brought close together as intellectually lowering to the former. But this was due to misunderstanding, and hardly survives among avowed opinions. The educational as against the industrial argument for technical education has been very ably urged both in America and in Sweden. The view is taken in some of the best manual training schools of the United States that instruction in carpentry, wood-turning, patternmaking, iron chipping and filing, forge work, brazing and soldering, the use of machine shop tools, and other such instruction, is

## INTENDED FOR MENTAL DISCIPLINE ONLY.

Work done in the shops is not for sale or profit, and is of value, as a rule, only as exercises. This has been very finely expressed by the director of the St. Louis Manual Training School, Mr. Woodward,† as follows:—

In a factory, intellectual life and activity is not aimed at; its sole object is the production of articles for the market. In a manual training school, everything is for the benefit of the boy; he is the most important thing in the shop; *he is the only article to be put upon the market.* . . . We abstract all the mechanical processes and manual arts and typical tools of the trades and occupations of men, and arrange a systematic course of instruction in the same. Thus, without teaching any one trade, we teach the essential mechanical principles of all.

Generally, the object is to develop the mind, to start thought, and to train the executive faculty for useful action.

This ground has often been taken by those who are not anxious for technical schools to come into closer relation to handicrafts. Lord Armstrong was at one time, and perhaps still is, rather unfriendly to "technical education" in the latter sense. Head of the Elswick Works, and employing 13,000 men, he was entitled to an opinion on such a subject. That opinion was that "mobility, precision, delicacy of hand, should be cultivated by use of simple

\* "Leonard and Gertrude."

† Report of the Pennsylvania Commission on Technical Instruction, p. 173.

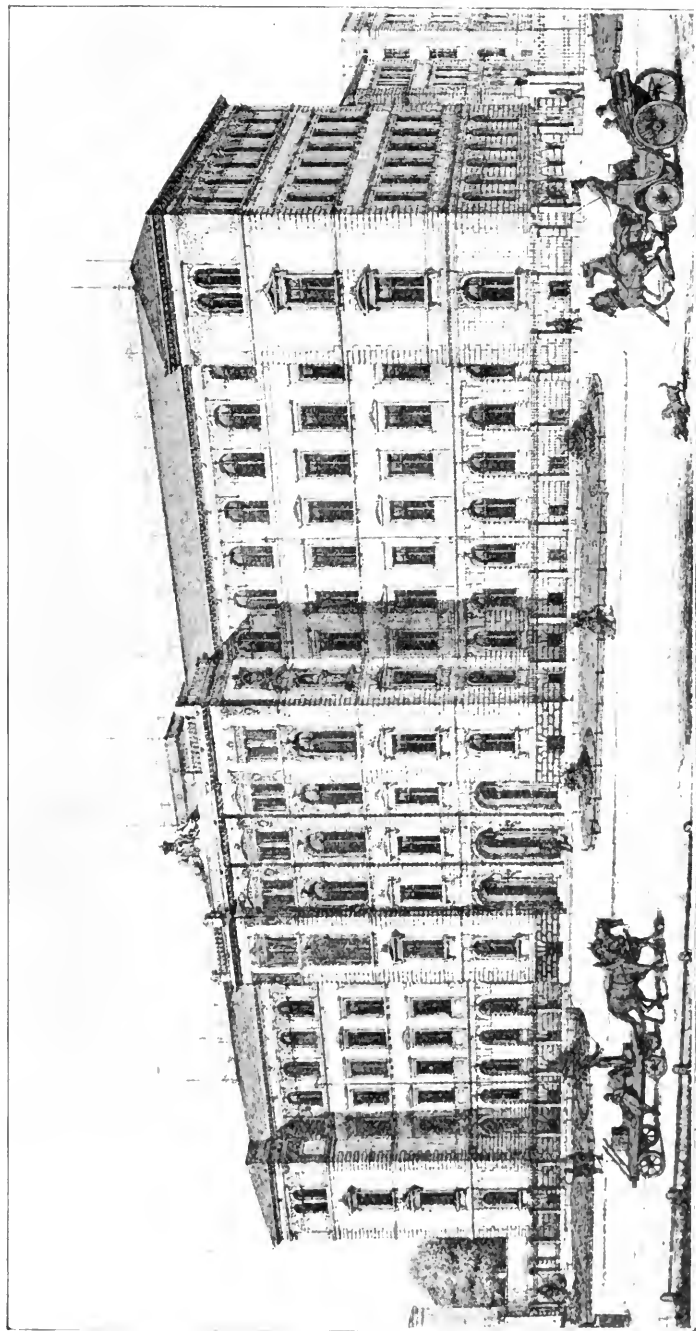
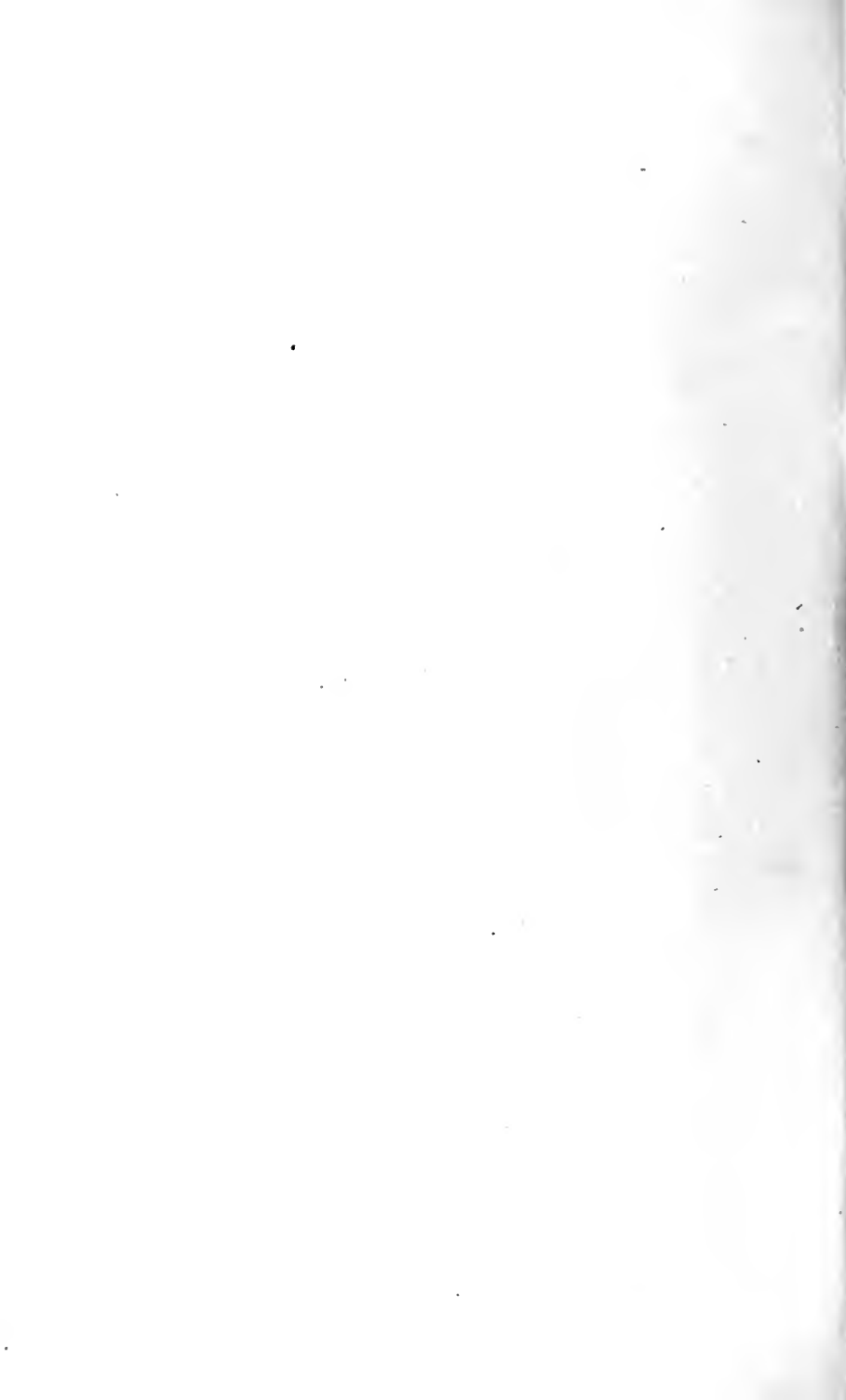


Plate 1.—The Higher Trade Institute, Chemnitz.



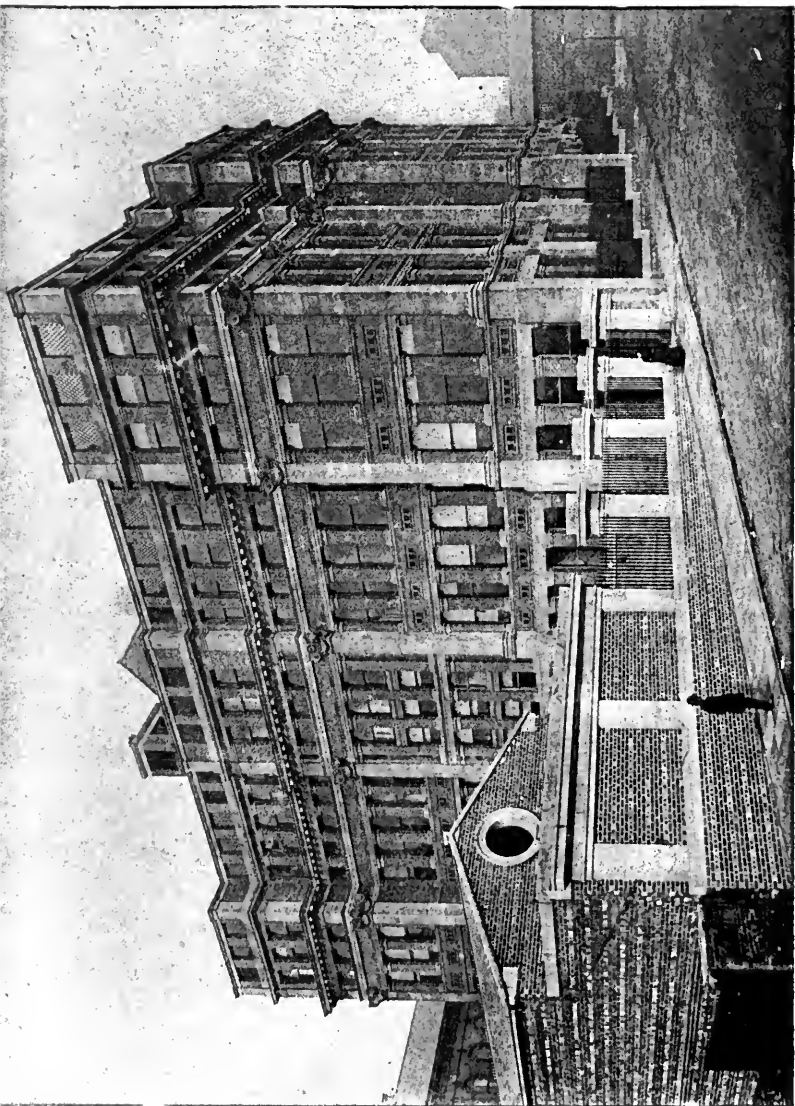
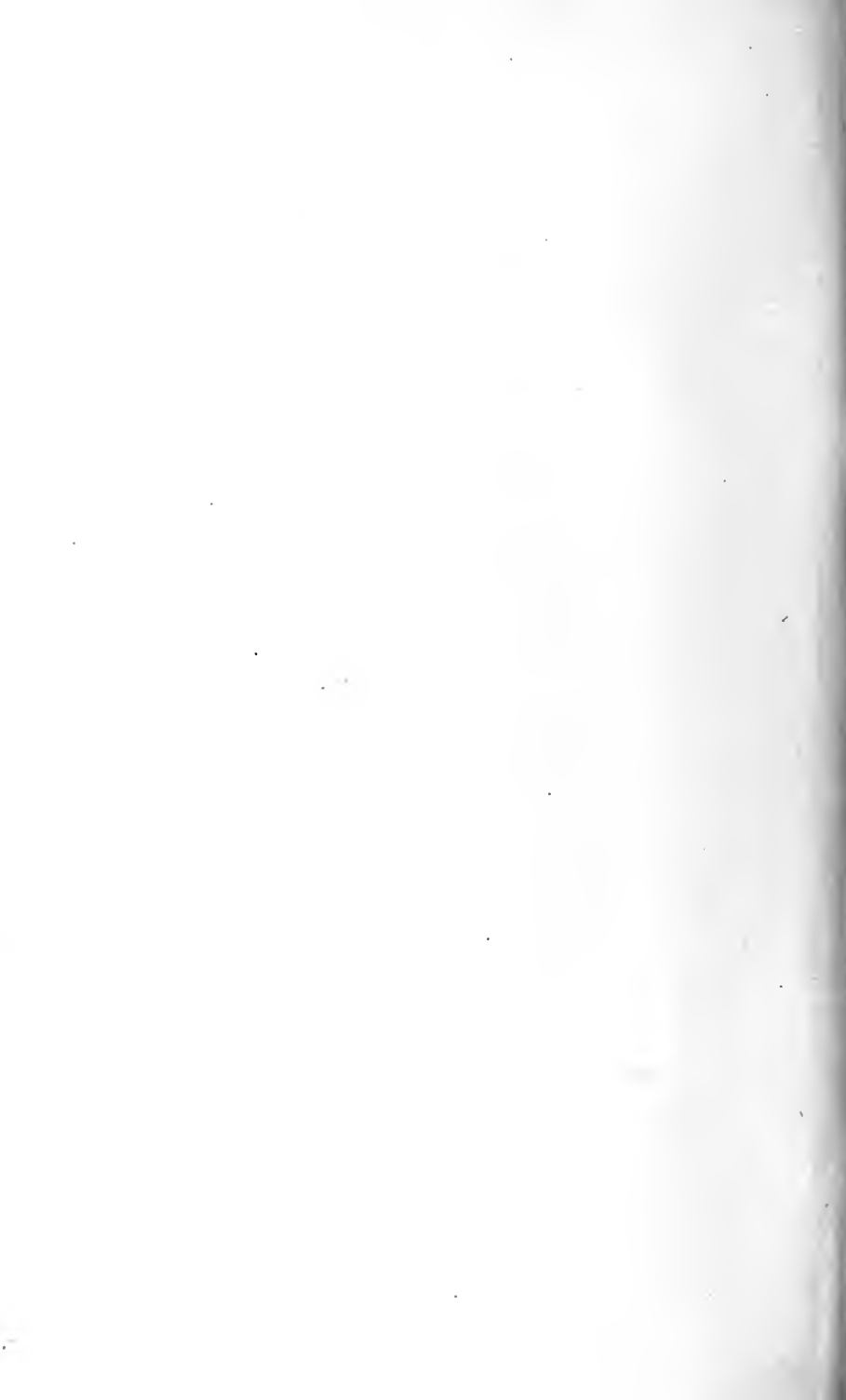


Plate 2.—CENTRAL HIGHER GRADE SCHOOL AT LEEDS.



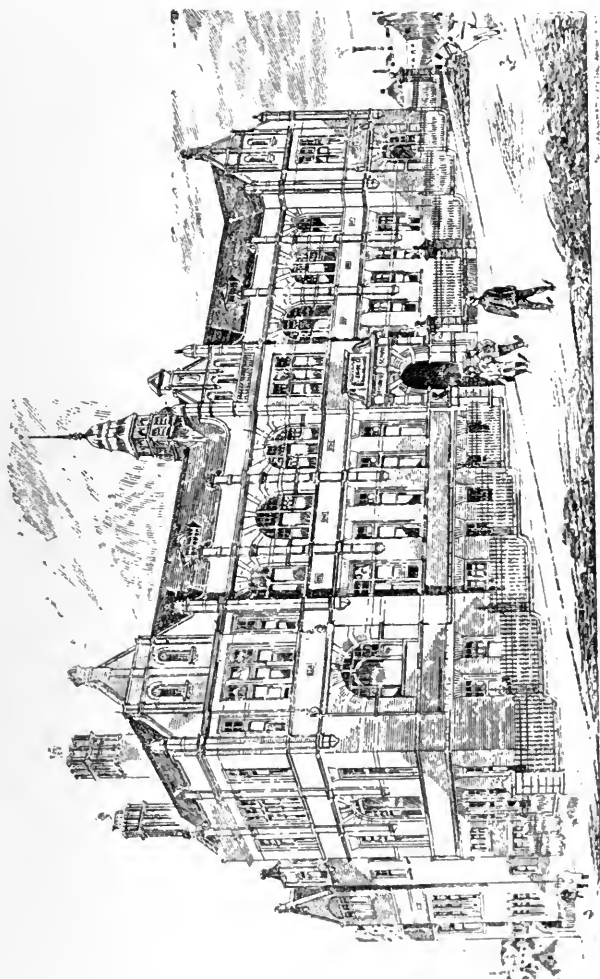


Plate 3.—MUNICIPAL TECHNICAL SCHOOL AT ROCHESTER.





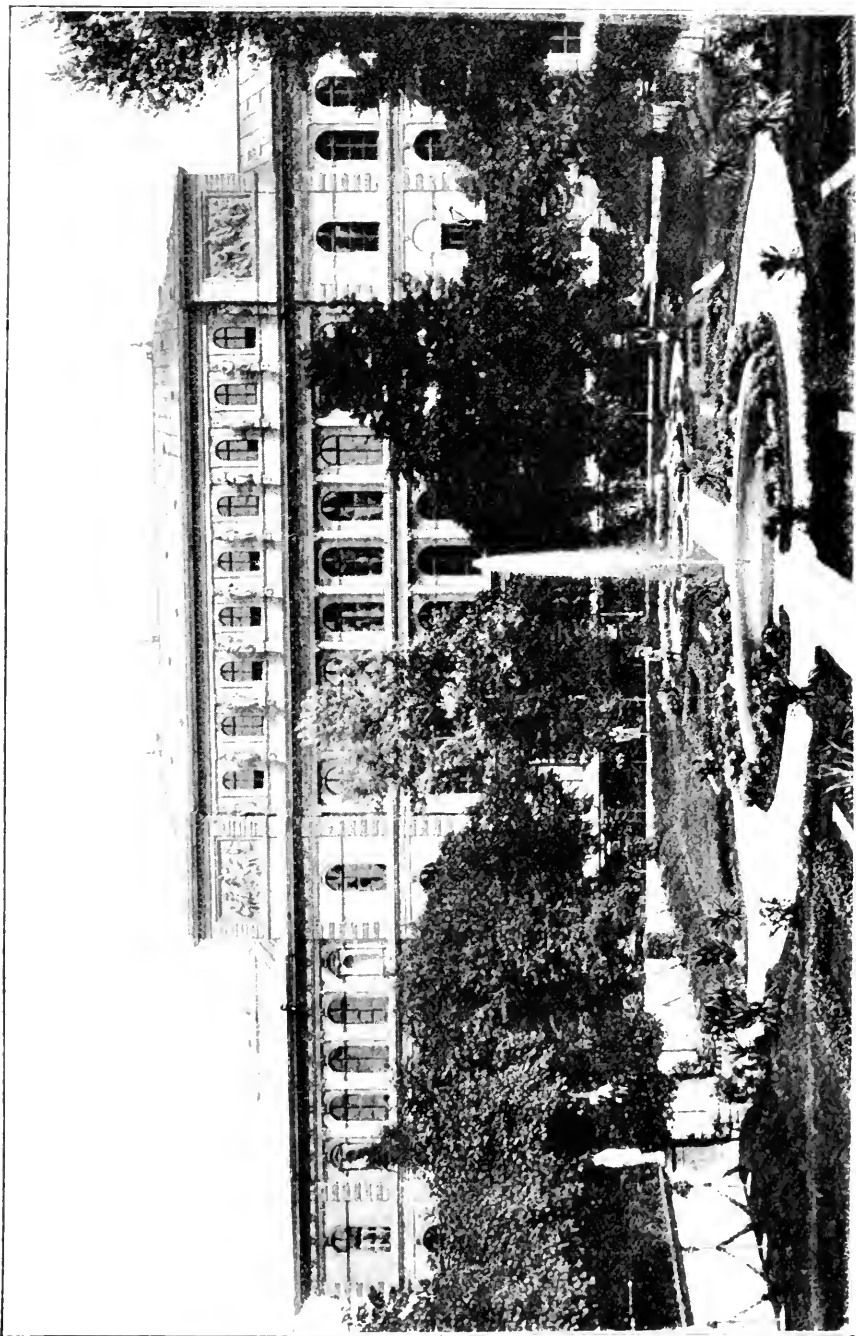


Plate 4.—THE POLYTECHNIC, STUTTGART.



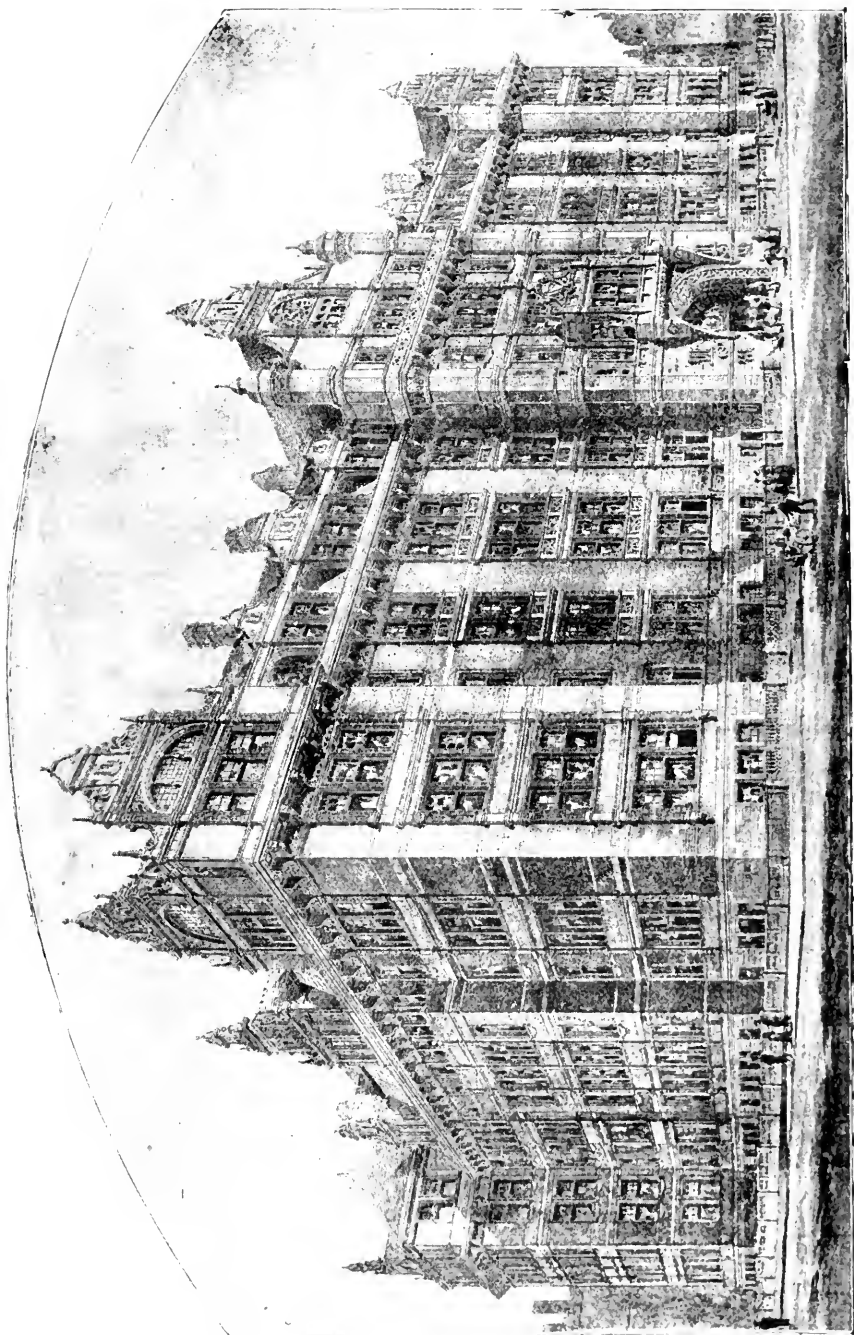
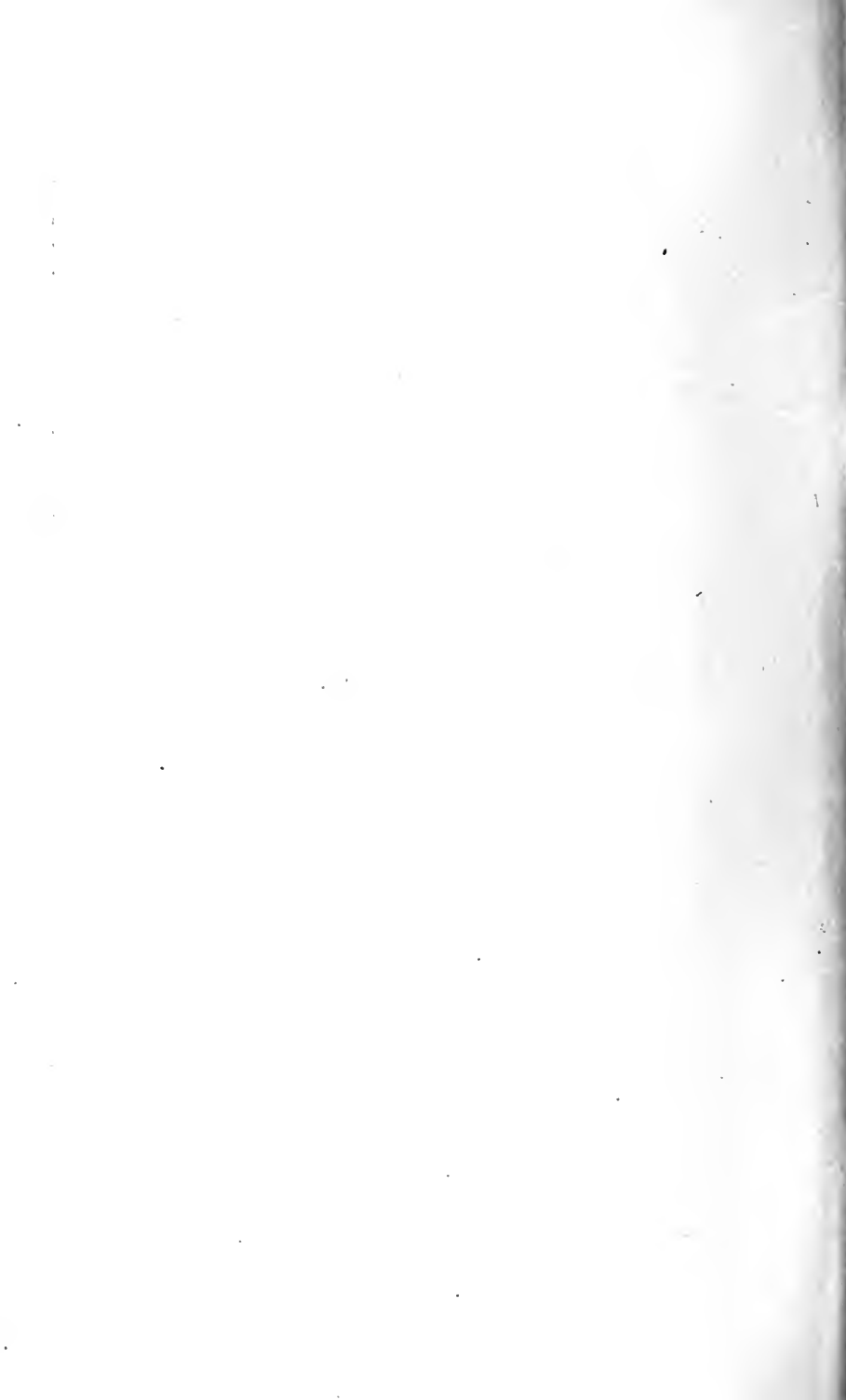


Plate 5.—PROPOSED MUNICIPAL TECHNICAL SCHOOL AT MANCHESTER.



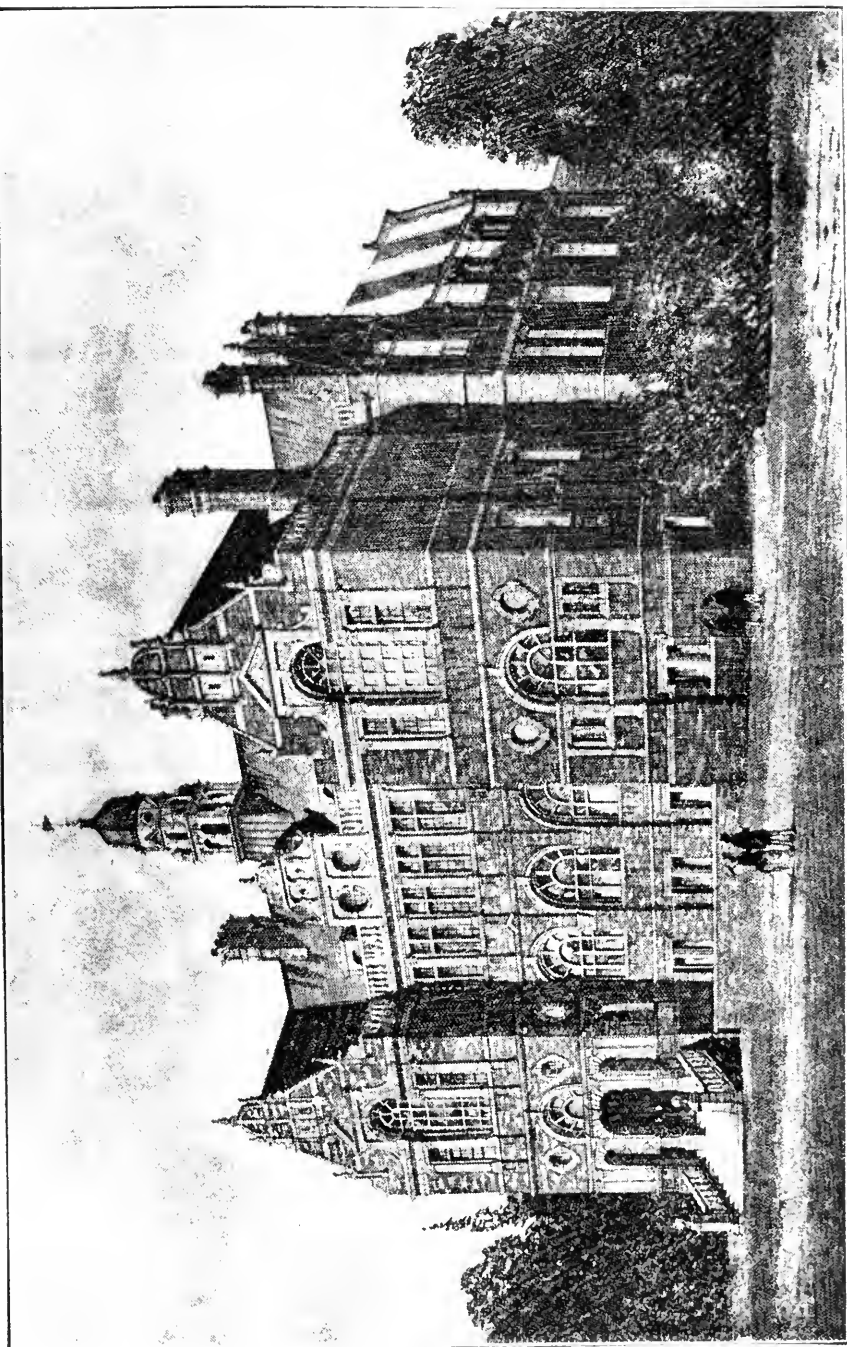
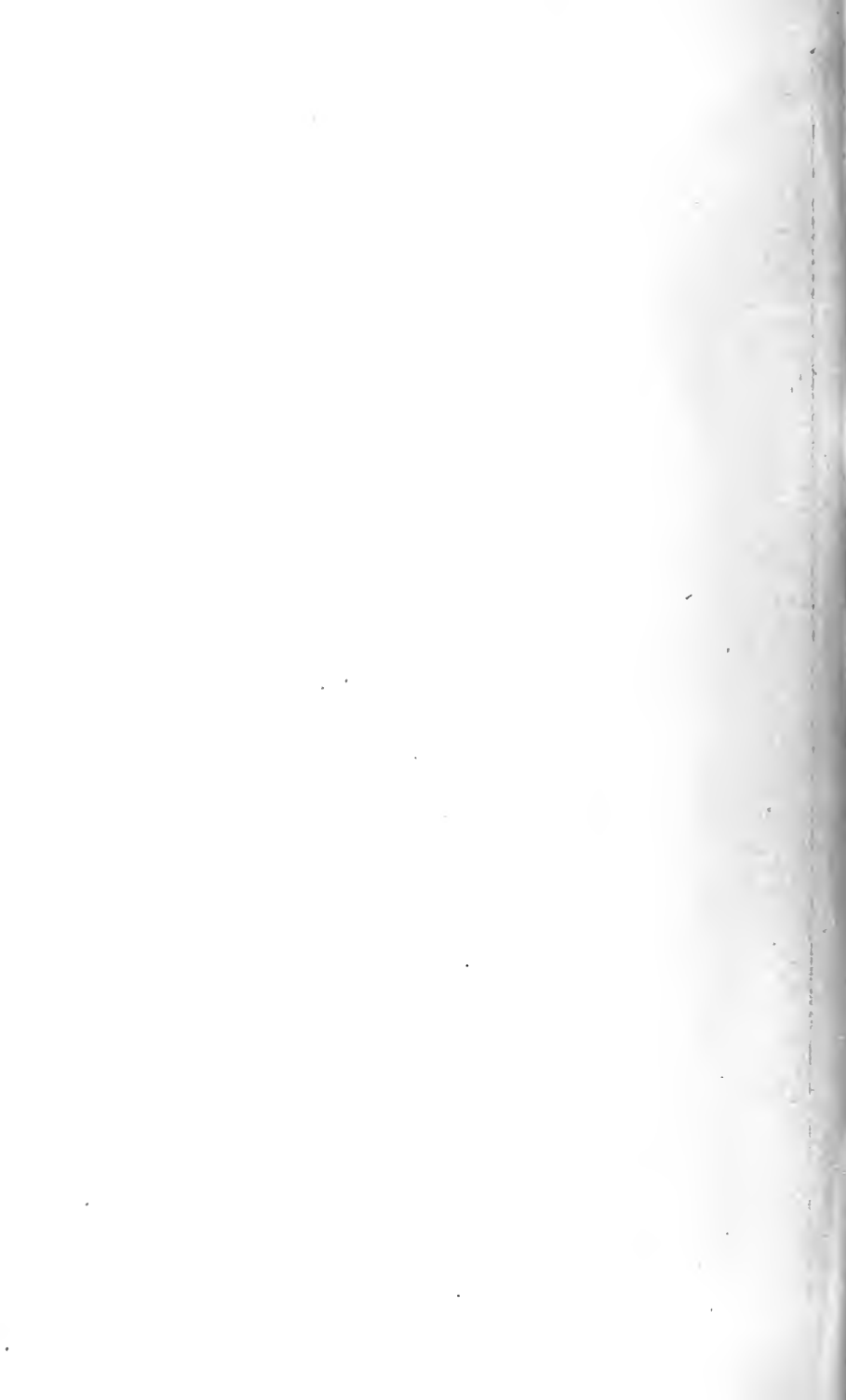


Plate. 6 —STOCKPORT TECHNICAL SCHOOL.



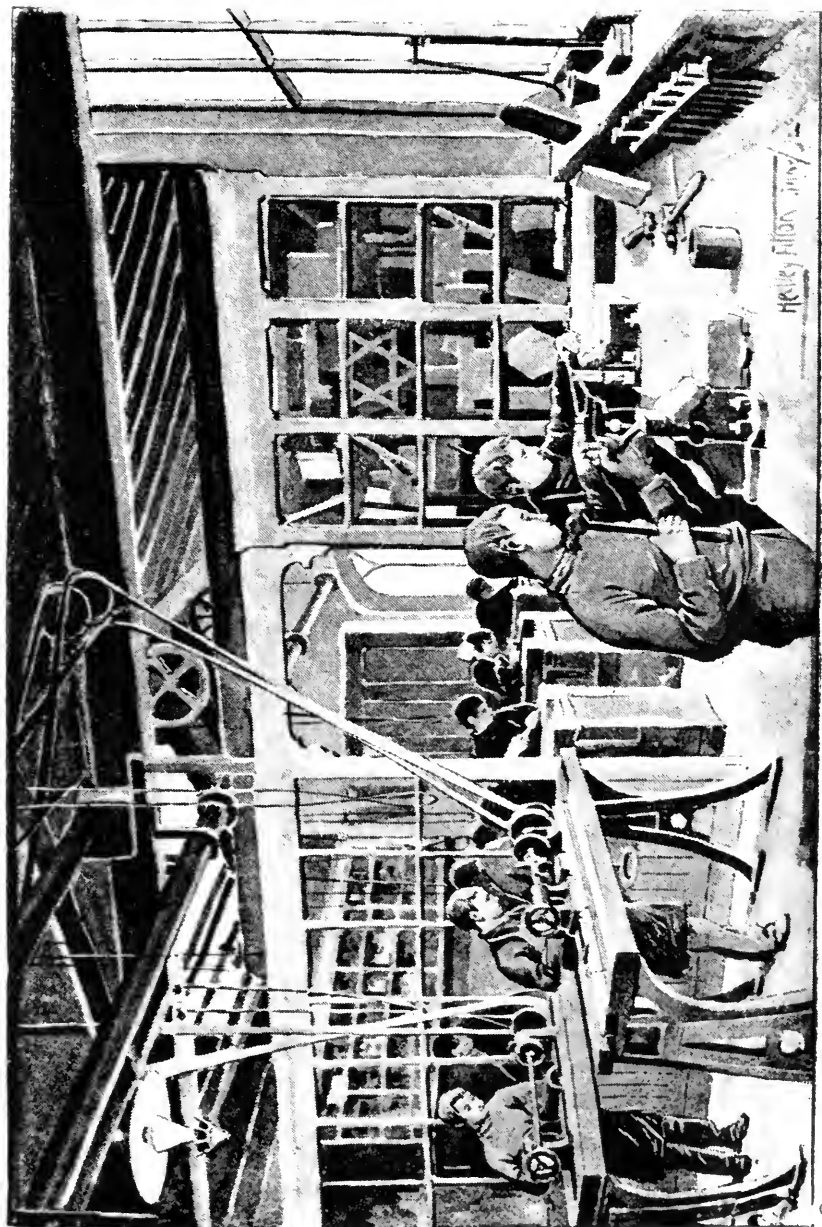


Plate 7.—CHETHAM'S HOSPITAL SCHOOL, MANCHESTER.





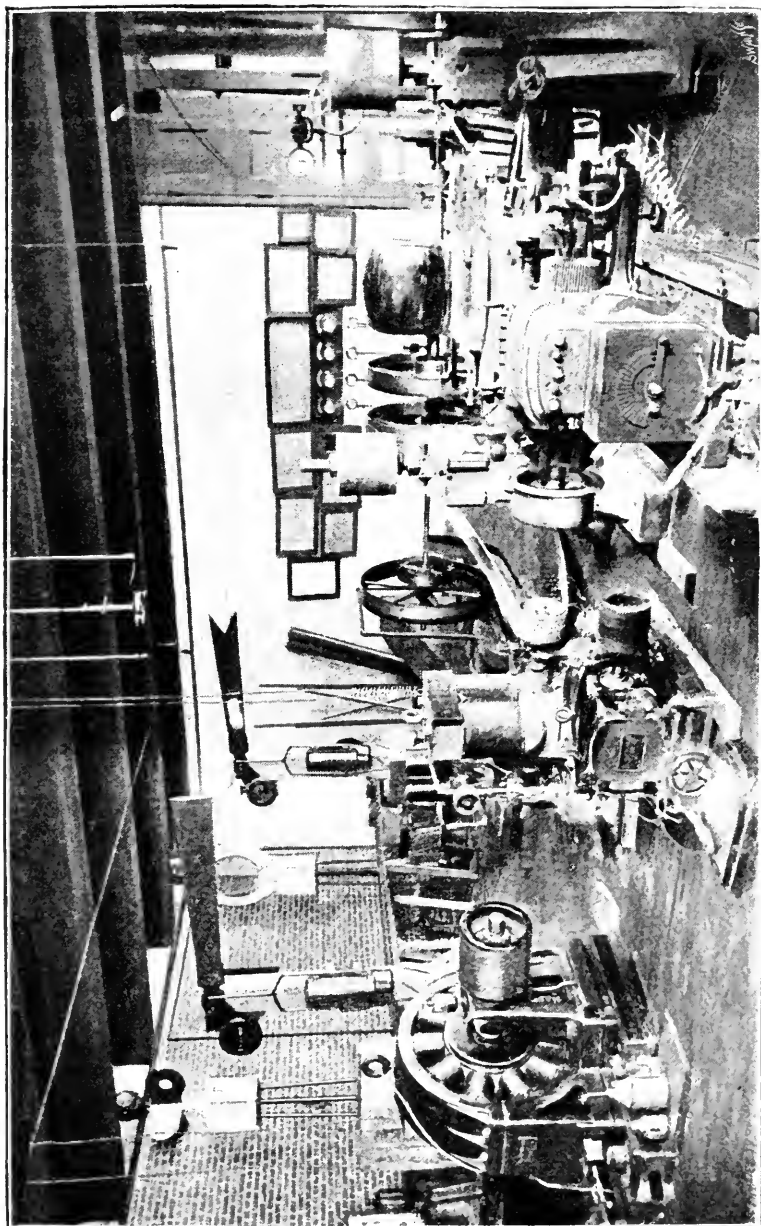


Plate 8.—DYNAMO-LABORATORY OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY, BOSTON.

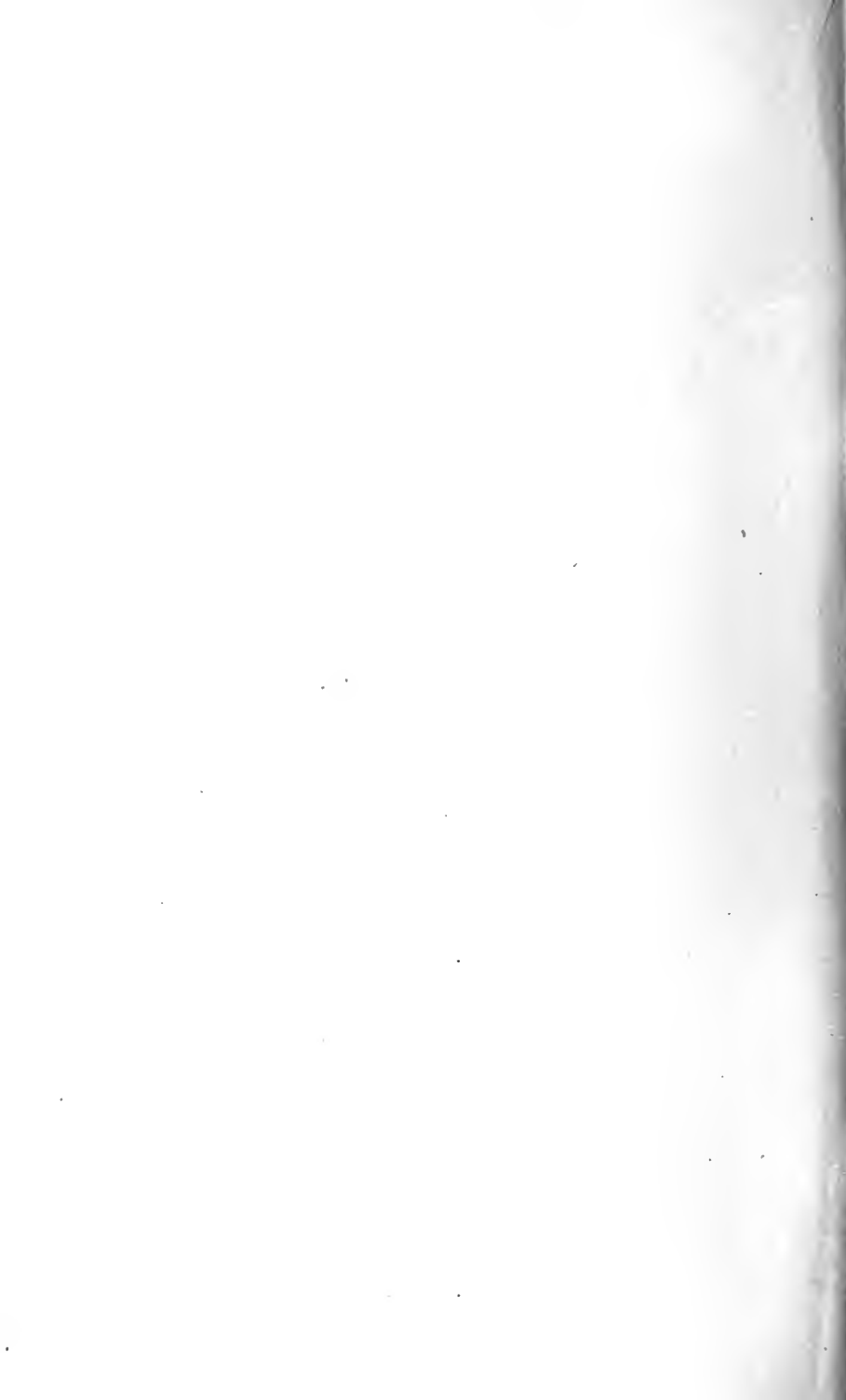




Plate 9.—PHYSICAL DEPARTMENT OF THE ZURICH POLYTECHNIC.



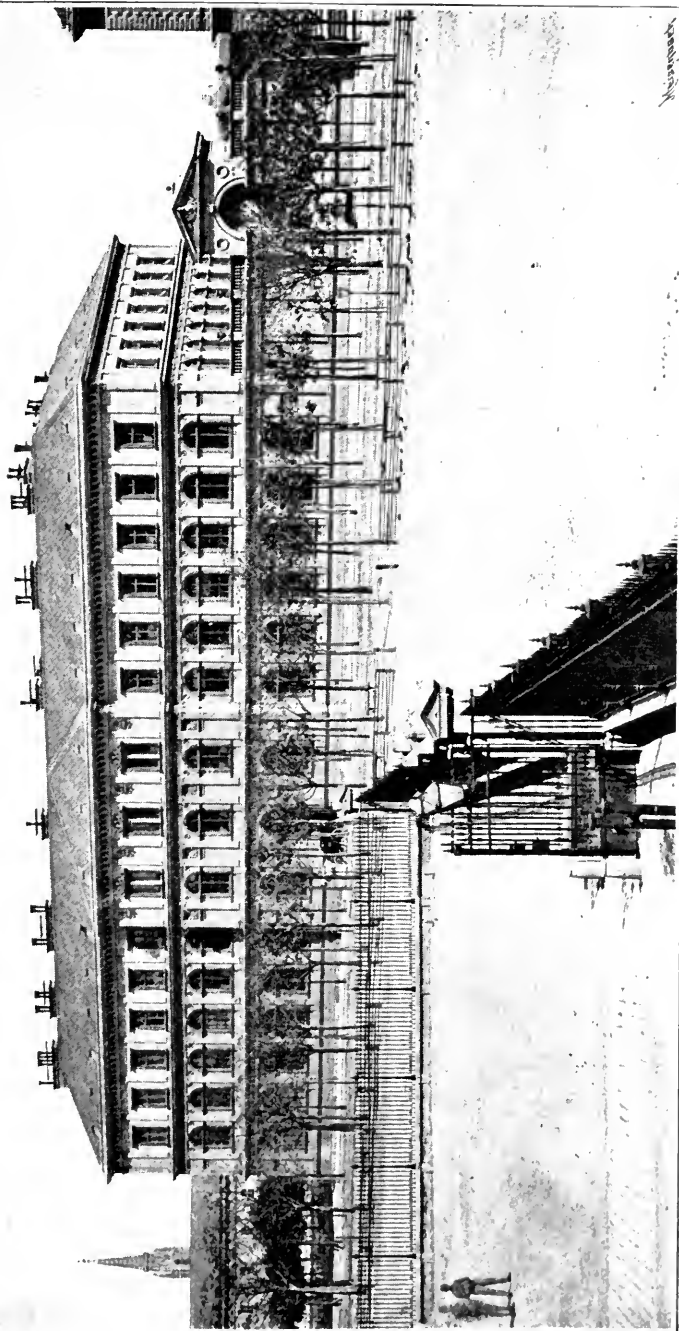
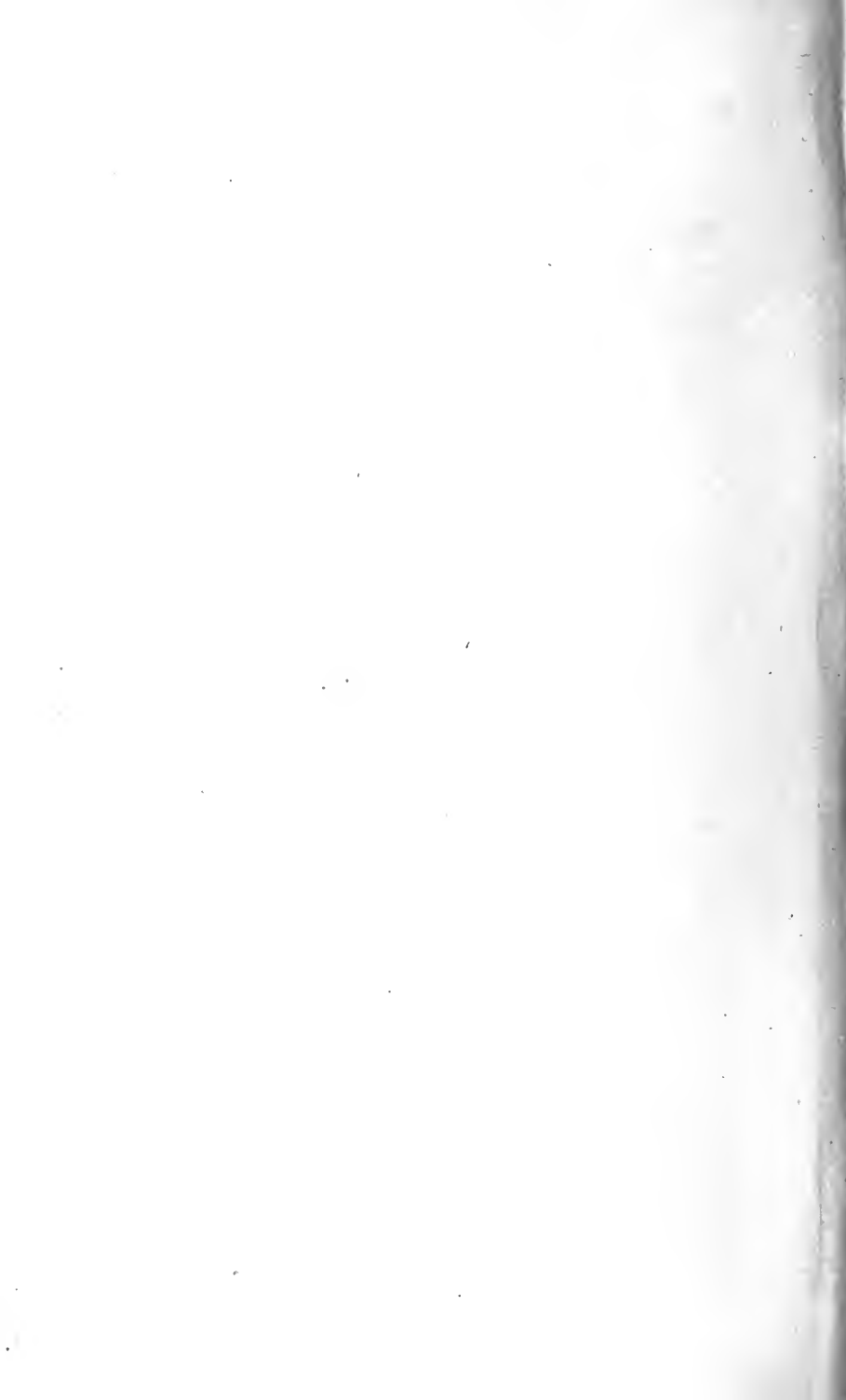


Plate 10.—INDUSTRIAL ART SCHOOL, VIENNA.



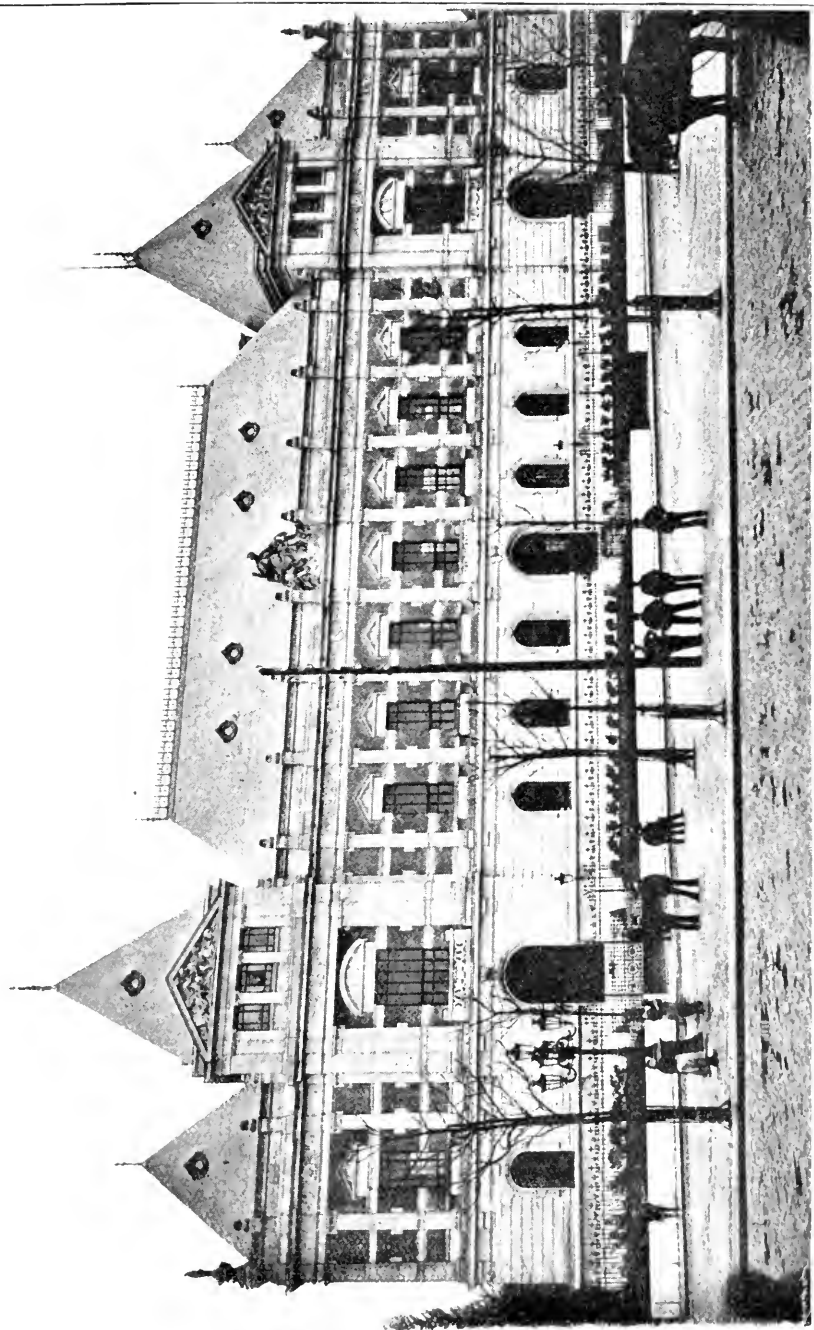


Plate 11. NATIONAL SCHOOL OF INDUSTRIAL ARTS ROUBAIX





## TECHNICAL EDUCATION AT HOME AND ABROAD.

tools, and this would give advantage in any work afterwards undertaken."\* "To attempt to teach children special trades and processes of manufacture would, I conceive, be a mistake."† Lord Armstrong desiderated *ability* rather than knowledge. He said that he should have had around him a very different—"an incomparably less efficient—staff" if he had not chosen men for ability rather than for knowledge. He therefore looked to manual education as the means whereby "the hand, the eye, and the ear should be trained so as to make those organs more available as instruments of the mind."†

Doubtless an overwhelming case can be made out for manual and technical education from this side.

But manual instruction can offer all sorts of pleas. It is important as helping the young to realise the dignity of manual labour, and to respect the labouring man. More of our best youth should live by mechanical industries. It is a common error to suppose that manual labour is coarse, unintelligent, and unskilful.

It is, of course, not proposed that technical instruction shall stand alone. It can easily be combined with literary and other studies. It gives greater value to science and drawing by the light it throws on forms, materials, and processes. The handling of real things helps the appreciation of language. It conduces to clearness and simplicity of statement. It engages the energies of young people to good purpose, and keeps them from much misdirection. It lengthens the school course. It gives boys chances of distinction who would not excel in less objective studies. It prepares for the choice of a career. It favours invention and improvement. It will cure society of its contempt for the men of the workshops. It will raise the standard of comfort and taste in domestic life.

All this is true of technical education on its educational side. But that view is not the only, or the most prominent, conception of the subject. We must also glance at the

## VALUE OF TECHNICAL EDUCATION TO NATIONAL TRADE.

(See plate 1.)

THIS is being anxiously considered by thousands of able men concerned for the maintenance of our markets and commercial supremacy, but not less concerned for the prosperity of the immense industrial population of England as bound up with that supremacy. Few, perhaps, will agree with Lord Armstrong that technical education is likely to prove of value only to a small proportion of the workers, and these chiefly experts and supervisors. It is reasonable to believe that the early training of ear, hand, and eye in various occupations must re-act favourably upon the skill, taste, and excellence of all kinds of workmanship. Why there should be any

\* *Nineteenth Century*, July, 1888, p. 46. † *Ib.*

## TECHNICAL EDUCATION AT HOME AND ABROAD.

quarrel between the pedagogical and the economical schools of technical education, the average man will probably find it difficult to explain. Trained faculty must lead to better workmanship. If it will develop the mind for a scholar to learn the difference between a ripping and cross-cutting saw, and to make through mortise and tenon, polished mortise and tenon, double mortise and tenon, &c., it will surely equally help mental development for a scholar to produce an article in paper, cotton, clay, wood, or iron, not necessarily for sale, but such as would command sale if put on the market. Abstract mechanical operations are involved in the regular industries, and the latter will confer many of the benefits of the former, with some advantage superadded. Sir Lyon Playfair would teach specific trades and industries. But whichever policy is acted on, educational value will attach to specific industries, and an industrial value will attach to general practice with tools, such as hammer, mallet, chisel, gimlet, centre-bit, brace, screwdriver, compasses, square, marking-gauge, jack-plane, &c.

It must not be forgotten that a degree of industrial efficiency which sufficed for one state of circumstances may not be adequate at another time.

## INDUSTRIAL SUPREMACY NOT NECESSARILY PERMANENT.

CONDITIONS may favour a nation at one epoch which are more equally shared with its neighbours at another. Some features of a country abide and confer permanent advantages of climate, mineral wealth, geographical position, seaboard, and other things; but the volume of a country's trade is affected by things which are not laws of nature. Political troubles may throw a nation behind in the race, but peace may return and send it forward as a competitor with the best. This has happened with some continental countries. While they were the scene of the long Napoleonic wars, England tilled her fields, took high prices, and developed her manufactures with scarcely a rival. But peace, order, and the needs of growing populations, and, above all, superior education, have made them powerful candidates for the commercial favours of the world.

We shall now endeavour to exhibit the forms and progress of technical education in the chief countries of the world.

## ENGLAND AND WALES.

THE energy and inventiveness of the English people, have fitted them for the leadership of the trade of the world. The great accumulation of capital in their hands, and the long exemption of the soil of England from the ravages of war, have also immensely facilitated that supremacy. Foreign nations waited their time, and when it came took the best means to improve their position. The two chief forces that have contributed to their rapid advance

## TECHNICAL EDUCATION AT HOME AND ABROAD.

have been thrift and education. Of course they have copied English methods and improved upon them where they could. It is certain that some countries have of late decades been going forward at a more rapid rate than ourselves, and that we have lost some domestic markets and are sustaining keen competition in markets far distant. It is also evident that the best educated nations are precisely those which are running us a close commercial race. Germany has imported English machinery, engaged some of the best men from English shops, and prosecuted the scientific and technical education of her people to such an extent during the last thirty years that her progress has been marvellous. Englishmen were made use of in the founding and extension of engineering and machine shops in Germany, but now it is a rare thing to find Englishmen at the head of German workshops. That country is raising its own managers and sending not a few men, scientifically well equipped, to take leading positions in England. For all that, English mechanical genius, natural advantages, and freedom from the incubus of a military system such as Germany's, will stand her in good stead if she looks well to the education of her people.

Technical education presupposes good general education as its basis, and we have seen that this is lacking in many parts of England. An illustration of this, as far as Lancashire is concerned, is furnished in the Report of the Technical Education Committee presented to the Lancashire County Council, on August 3rd, 1893. The Council had offered 100 exhibitions for proficiency in science during the past year, together with 25 in art, and 25 in commercial subjects, but much disappointment was caused by the small number of candidates entering. For science, only 44 entered, and only 23 of the 100 exhibitions in that subject were awarded. There were more numerous entries for art and commercial subjects. Mr. Alderman Snape, M.P., remarked that—

He was compelled to conclude that the primary schools of Lancashire were extremely defective in the science teaching which was given, and this idea was confirmed by the most recent report of the Education Department. What was most wanted was a properly organised system of education in the day schools as well as in the evening schools of the country.

## KINDERGARTEN PREPARATION.

ENGLAND has reason to be proud of many of her infant schools, and it is agreed by educationists that ear, hand, and eye training should be given in infant schools. The handling, counting, and grouping of solid objects, and the distinguishing of colours and sounds, form an easy preparation for the more difficult manual exercises of later education. The Education Code offers for infant schools a variable grant of 2s., 4s., and 6s., dependent on (1) suitable instruction in the elementary subjects; (2) simple lessons on objects and on the

## TECHNICAL EDUCATION AT HOME AND ABROAD.

phenomena of nature and of common life; and (3) appropriate and varied occupations (Art. 98, C.). The number of infant scholars on the registers last year (1892) was 1,764,930, and there would be great advantage in that number being taught the "appropriate and varied occupations" of kindergarten. It would appear, however, that the 6s. grant was earned for but 556,104 infant scholars in average attendance out of a total average attendance of 1,180,782 (Table No. 1, B. Report for 1892-93), a fact which suggests that object lessons and kindergarten are not yet well taught in many infant schools. Manual training and kindergarten are near akin in their fundamental principles; both tend to develop a scholar's faculties and aptitudes by cultivating the sense perceptions and imparting correct ideas of form, and both test those perceptions and ideas by calling for their embodiment in tangible material. Froebel, like Mr. Herbert Spencer, urged that the teacher should proceed from the individual to the general. To put it in the words of the former—

The teacher should make the individual and the particular general, the general particular and individual, and elucidate both in life; he should make the external internal, and the internal external, and indicate the necessary unity of both.

Froebel sought to do this by his system of instruction called "gifts and occupations." The Gifts, by which he sought to give the child objects to perceive and arrange, were (1) bodies—balls, cylinders, divisible cubes of several kinds; (2) surfaces—squares and triangles; (3) lines—straight or circular; (4) points—seeds, pebbles, &c.; (5) reconstruction—the construction of lines with points and so on back. The Occupations, by which he sought to give play to a child's powers of intelligent control and adjustment, were (1) solids—plastic clay, cardboard work, wood-carving, &c.; (2) surfaces—paper folding, paper cutting, parquetry, painting, &c.; (3) lines—interlacing, intertwining, weaving, thread games, embroidery, drawing, &c.; (4) points—stringing beads, buttons, &c., perforating, &c.

In the supplement to Schedule II. of the Code (1892) is an excellent arrangement of thirty object lessons on nine subjects. The subjects may appear formidable from their names, but the lessons placed opposite them show admirable adaptation to the standards. There are six schemes of lessons for the seven standards. We subjoin two examples of the object lessons for standards I. and II.

Course D.—*Principles of Agriculture*: Thirty object lessons, *e.g.*, the usefulness of the various animals kept on a farm and how they repay kindness and care; bees; earthworms; a grain of wheat; hay; work in a forge; the work of a farm in different seasons; gardening; garden tools.

Course F.—*Sound, Light, and Heat*—*e.g.*, bell trumpet; tuning fork; sunlight; primary colours; candle; a fire; boiling water; red-hot poker.

These lessons would form the next stage to the kindergarten in practical education if only the elementary schools were compelled to teach them on pain of losing Government grants.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

Primary schools in England have opportunities of giving technical education which they never had before.

Manual instruction, science, practical cookery, and laundry work (for girls over standard III.) are now recognised by Art. 12 (*f*), and attendance at such instruction is an attendance for payment whether or not it is given in the school premises or by the ordinary teachers of the school. The pity, of course, is that these subjects may be neglected at the discretion of the managers, or manager, without affecting the claim of a school to be classed and paid as an efficient school.

## DRAWING.

DRAWING, too, has been made compulsory for boys. Not quite, however, for where the inspector "certifies that means for teaching drawing cannot readily be procured," the rule of Art. 85 (*b*) falls to the ground. Our codes are still framed to secure grants for schools that are scantily taught. Out of 90,794 girls taught cookery, 66,532 were in board schools; and out of 2,766 girls taught laundry work, 2,423 were in board schools. Last year a grant of 1s. for drawing was paid on an average attendance of 394,425 boys. Drawing may fairly be classed as a form of manual or technical training, for it lends delicacy to the fingers, makes perception more exact, and aids the sense of elegance and beauty. Drawing is now examined by the Science and Art Department.

The Commission on Technical Education recommended (1) that drawing be incorporated with writing as a single subject, and continued through all the standards; (2) that no school receive public money unless supplied with casts and models; (3) that modelling should be made a subject on which grants could be earned; (4) that art should be well taught in training colleges; and (5) that the inspectors of the Education Department be made responsible for instruction in drawing in elementary schools.

## ITINERANT SCIENCE DEMONSTRATORS.

LIVERPOOL, Manchester, Birmingham, Nottingham, and other places have for years employed such special teachers, and their work is a valuable preparation for technical education. They go from school to school, giving science teaching in such subjects as magnetism and electricity, physiology, mathematics, hygiene, machine construction, or chemistry. Models, apparatus, and experiments are freely employed, and the interest of the scholars is kept at the highest point. Each school for older scholars receives a weekly or fortnightly lesson. The regular teachers of the schools enter heartily into the work of the peripatetic instructor, being present at the time, and going over the subject of the last lesson with their scholars in the intervals of

## TECHNICAL EDUCATION AT HOME AND ABROAD.

his visits. The apparatus is kept at a central laboratory, and wheeled to and from the schools in a light handcart by the demonstrator's porter. In some towns non-board schools partake of the instruction on contributing their proportion of cost. Organised science schools are sometimes opened at certain schools as centres, and placed under the charge of the science demonstrator. The Nottingham School Board employed in 1892 no fewer than five of these peripatetic teachers, with five porters, and four woodwork instructors. As the result, this excellent board obtained in 1892-93 no fewer than 6,192 passes in specific subjects (including cookery and laundry work); 1,500 attendances were made at its woodworking classes (including seven deaf mutes and 40 teachers); there were, out of 1,248 papers worked, 387 science passes in the first class, and 768 in the second; 44 first results in art, and 109 seconds; and 7,592 scholars were under the instruction of the science demonstrators. Particulars of other boards might be given did space permit.

## HIGHER GRADE SCHOOLS.

SECONDARY Education is one of the maturing subjects of our day. The Education Department is already to some extent associated with it. Its approval is required before any scheme for an endowed school can take effect after having been framed by the Charity Commissioners, and its action is a needful preliminary to the distribution of the grant of £15,000 annually made to the university colleges. Mr. Acland has appointed a departmental commission representing the three Government departments concerned with secondary schools, viz., the Charity Commission, the Science and Art Department, and the Education Department, and the sittings of this body since 1st December, 1892, ought to bear fruit in some measure for bringing higher or secondary schools within reach of the population. It is admitted (Report of Education Department, 1892-93, p. 6) that higher education can be given by school boards, and is in some cases already being given. We have just glanced at one example out of several in the Midlands. London, Manchester, Birmingham, and Leicester are doing what Nottingham has done, and every great school board is, or could be, working on the same lines. The smaller school boards are only disabled by the optional character of the code curricula, and by the fact that the country districts and Lancashire are practically, with some noteworthy exceptions, not under school boards at all. What can be done for secondary and technical education under the code may be seen in the

## LEEDS HIGHER GRADE SCHOOL.

(See plate 2.)

NOWHERE on the Continent could a finer municipal school be found. It is secondary, but it is in close touch with the elementary

## TECHNICAL EDUCATION AT HOME AND ABROAD.

schools. Lads have matriculated at London from its classes. It accommodates from two to three thousand scholars. By examination and merit scholars may have free education in it, but for a shilling a week parents may obtain an education such as many are trying in vain to get by sending their children scores of miles from home at a cost of £40 to £100 per annum. The laboratory, the music class room, the gymnasium for each sex, the workshop, the science master, the dressmaking class, the art school, the drill ground, may all be found there at the service of several thousand scholars, who are as bright and promising as could be found anywhere in Europe. Friends of secondary education who want to see the high school grow out of the primary school could not do better than ask Mr. Packer, the clerk of the Leeds Board, to show them over the school or post them some particulars of its organisation. Secondary schools and technical education will do little for England unless they can be brought close to the people, and made an organic part of a public system.

The Central Board School at Sheffield is another splendid example. Here ordinary and special subjects have been taken together, and cookery, drawing, German, school workshops for wood and iron, and models and apparatus for the experimental illustration of mechanical principles, have done much to meet the demand for higher education at moderate cost in that great town, where technical aptitudes are as important as in any town in the world. It could never be said that a lad who had gone through such schools was unfitted to profit by special technical teaching under the Act of 1889. Mr. Snape's remarks in the Lancashire County Council are called for by the lack of day schools of this class in most parts of England, and by the early age at which the mass of children leave school even in the neighbourhoods where day and evening classes might prepare them for county exhibitions and scholarships in technical education.

The provision of secondary schools ought certainly to be entrusted to school boards. These bodies have applied the Education Code with great ability and liberality to higher grade education, and to set up another authority charged with this duty would be bad policy. Bodies that can supervise such higher grade schools as we find under boards in England and Scotland ought not to be superseded. At an important conference of friends of secondary education and representatives of school boards held in Manchester, March 21, 1893, the Secondary Education Bill for England (introduced by Mr. Arthur Acland, Sir Henry Roscoe, and Mr. Henry Hobhouse) was sharply criticised because it devolved the whole duty of supplying or aiding the supply of secondary schools upon councils of counties and county boroughs. The conference demanded that there should be

## TECHNICAL EDUCATION AT HOME AND ABROAD.

one local authority in each district, having the management of elementary, secondary, and technical education, so far as aided from local rates, that this authority should be elected solely for educational work, and that school boards should be universally established for this purpose.

## THE SCIENCE AND ART DEPARTMENT CLASSES

HAVE done more than any other agency, until very recent years, to teach science to artisans, and thus to raise the intelligence of labour. The Royal Commission on Technical Education recommended various improvements in the policy of the department, some of which have already come about by legislation or code changes. They were—

(1) That local authorities should be allowed to conduct classes for young persons and adult artisans under the department. (2) That science teaching should be more practical and better paid for in the "advanced" and "honours" stages. (3) The sub-dividing of metallurgy and mining. (4) Better inspection of teaching and apparatus. (5) Larger building grants for schools of science and art than £500.

In England day technical schools are not much known. The convenience of the workmen calls for evening classes. Numerous evening classes for science and technological study have been carried on for years past, and credit is due to them as forming a foundation upon which the larger work of county technical education is being reared.

## THE CITY AND GUILDS OF LONDON INSTITUTE

FRAMED a scheme of technical teaching not unlike that of the Science and Art Department, and gave aid to localities by organising classes and making capitation grants. It required teachers of these classes to be qualified in theory and practice, to hold a certificate of honours granted by the Science and Art Department or by the Institute, and to have filled some place of responsibility in the industry that was the subject of instruction.

## THE CO-OPERATIVE SOCIETIES OF GREAT BRITAIN

HAVE from their foundation been earnest promoters of education in the sciences and in technology. In 1890, the amount of their profits devoted to education was no less than £27,587, a sum nearly twice that of the Government grant to university colleges at the present time. Before the county councils began their educational work under the Technical Instruction Act, 1889, the co-operators of the North of England—beginning at Rochdale, the cradle of the co-operative movement, where a municipal technical school (*see plate 3*) is now in successful operation—were doing a modest but substantial work in their evening classes. In Lancashire, where the



## TECHNICAL EDUCATION AT HOME AND ABROAD.

co-operative movement has attained so remarkable an extension, there are many evidences of this activity. The Accrington and Church Co-operative Society has spent £400 a year on education, and has taught building construction, machine construction, practical geometry, and inorganic chemistry (theoretical and practical). In 1891-92 there were 292 students in science, art, and technical subjects. A grant of £120 was made by the County Council in 1892.

At Darwen, 99 students attended the co-operative society's classes in building construction, machine construction, geometry, botany, and art, in 1891-92.

At Eccles, the co-operative classes were held in carpentry and joinery, shorthand, cotton spinning, cotton weaving and designing, steam, applied mechanics, dressmaking, brickwork and masonry, in addition to the subjects named above. The number of students entered was 682.

The Failsworth Society has for over ten years held classes in science and technical subjects, and the County Council Committee voted £100 in 1891-92 towards the cost of new subjects of instruction and apparatus; 297 students attended, in addition to 84 at the sick nursing class.

In Heywood the science and art classes of the co-operative society were the only classes of the kind in 1890, and the society has expressed its willingness to merge its classes in a proposed new technical school for the borough. In almost every case these societies have offered to place their work, apparatus, and educational funds at the service of the county committees.

The Radcliffe and Pilkington co-operative classes studied organic chemistry, machine construction and drawing, brickwork and masonry, carpentry and joinery, cotton weaving, and other subjects, for fifteen years. Four hundred students have passed through the classes, and £300 has been spent.

In the fifteen county boroughs of Lancashire, viz.:—

Liverpool,	Blackburn,	Rochdale,	Wigan,
Manchester,	Bolton,	St. Helens,	Barrow-in-Furness,
Salford,	Preston,	Stockport,	Bootle,
Oldham,	Burnley,	Bury,	

the co-operative movement has been very fertile in educational organisation. Some of the societies are making arrangements to merge their work in the technical schools of the corporations, while others are modifying their plans to meet the new conditions.

At Rochdale, the Equitable Pioneers, the founders of the movement, have availed themselves of the Migratory Dairy School of the Lancashire County Council to conduct classes in that subject, and in other ways are maintaining the reputation of their society for interest in mental and social improvement. It is not likely that the

## TECHNICAL EDUCATION AT HOME AND ABROAD.

education grant of the co-operative societies will come to an end because the county councils have got hold of the lucky windfall of three-quarters of a million from the local taxation accounts.

## HIGHER TECHNICAL INSTRUCTION.

WE have looked at English technical education so far chiefly in connection with elementary schools, or as it is seen in the evening classes organised previous to the Act of 1889; but it is manifest that provision of a more elaborate kind is needed, either in special schools or in the secondary schools. The day will come when all the celebrated schools to which English youths go to be prepared for universities, for the learned professions, for public life, and for literary pursuits, must also prepare for superior technical work. It is of importance to the country that the children of the "middle class" should have this education. Higher technical instruction is also required for first-class workmen, managers of departments, heads of businesses, merchants, and distributors. The schools in question should admit pupils at about thirteen years, for perhaps a three years' technical course. A specimen of what is wanted will be found in the *Ecole Professionnelle Municipale* of Rheims, the plant in which cost £20,000.

The Technical Department of Firth College, Sheffield, or of University College, Nottingham, are cases in point. Every large town in England ought to have a school of this kind, and there is now a good prospect of it.

Some of these seats of higher technical instruction would be general in scope, preparing pupils for manufactures, mechanics, commerce, or agriculture (at least in the later part of the course) according to their aptitudes. Others would prepare for one industry only, like the Building Trades School at Stuttgart, which admits at fourteen years. (*See plate 4.*) We have as yet nothing like it, not even in such centres as Manchester. The projected

## MUNICIPAL SCHOOL FOR MANCHESTER

(*See plate 5.*)

WILL be a credit to that city. It is to be erected on a site of 5,800 square yards, all but 773 of which is the gift of the Whitworth legatees. Provision will be made for mechanical, electrical, civil, and sanitary engineering, the chemical industries, spinning and weaving, building trades, letterpress and lithographic printing, industrial art and design, commercial and domestic economy subjects. The total available floor space will be 150,000 square feet, exclusive of continuous corridors of fine construction that are to be utilised for illustrative exhibits of all kinds of great value to the students. An industrial museum, a gymnasium, a public lecture hall, a chemical

## TECHNICAL EDUCATION AT HOME AND ABROAD.

laboratory for eighty students, will be in addition to many class, drawing, designing, and lecturers' rooms and workshops. In the basement will be placed the electrical engineering workshops and testing tables, dynamo house, electro-chemical and technical testing laboratories, secondary battery room, rooms for optical, photometric, magneto-metric, and spectroscopic operations, the mechanical engineering workshops and testing laboratory with its experimental steam engine and large and small testing machines, the spinning and weaving rooms for cotton, silk, and other fibres, bleaching, dyeing, printing, and finishing rooms, plumbers', bricklayers', and masons' workshops, shops for repairs and construction of new appliances, woodworking machinery. The building will be lighted by 2,000 incandescent electric lamps. Its cost, including all fittings and machinery, will be £125,000, towards which the committee of the City Council subscribe £50,000 available from gift, profit, and property, and the rest will be borrowed for a period of thirty years on the security of the penny rate authorised by the Technical Instruction Act, 1889. The governing body will be a committee of thirty-six members, twenty-four from the City Council and twelve chosen from the outside public. Such a school will be one of the finest and earliest of the fruits of the legislation of 1889 and 1890.\*

The splendid technical schools connected with some few private firms in this country deserve a tribute of admiration. It would be hard to estimate the benefits to our national industries which have flowed from such great work-schools as those of Lord Armstrong at Elswick, the L. and N. W. Railway at Crewe, Mather and Platt at Manchester, and Bullough's at Accrington. Mr. Mather has given his opinion that the school has been of incalculable advantage to the works.

The Oldham School of Science and Art deserves recognition as a capital example of what schools for apprentices might be made by good teaching, good laboratories, and a great evening technical school, with large scientific and mechanical scope.

## WEAVING SCHOOLS.

In all the countries visited by the commissioners, attention was given to this branch of technology. It may be said that a factory is the best place in which to learn weaving, &c., but the factory, as a rule, offers a range of operations much narrower than the school. A factory may teach a man only a small part of an industry. For heads and managers, picked men and foremen especially, a wide acquaintance with an industry is better than expertness in one of the operations into which the great industries are divided.

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\* J. H. Reynolds, p. 90, "The Record" (Technical), November, 1892.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

The cotton industry of Lancashire is broken up beyond comparison. Yorkshire is intent on wool, and gives few thoughts to cotton. Bradford thinks of worsted, Leeds of woollens. The commissioners point out that a mill in Bradford may be for wool-combing and nothing else; another may spin two or three counts of yarn; a third weave one class of goods only. An apprentice may learn all that is to be learned in one of these factories, and yet may know little of the worsted manufacture. A general knowledge of textiles can be obtained in no factory, hardly in any one town.\*

The men who direct an industry and the men who ply a trade ought to have some idea of what the world wants, and ability to meet the world's wants and tastes is as valuable as low price and wearing quality. A large acquaintance with the bases of an industry and power of adaptation are more likely to be gained from school and factory combined than from the latter alone. Design is particularly important; it helps to sell cloth as it does to sell pottery and porcelain, glass, furniture, and metal work. The wool-comber, the spinner, the weaver may do his part well, but without satisfactory and pleasing design they are like a railway train that carries unattractive and tasteless fruit to market. High speed and safe delivery will not assure ready sale.

## IN BRADFORD AND LEEDS

WE have the Technical College and the Yorkshire College, and these are entitled to rank with the weaving schools of Germany. The Bradford College has a syllabus of which that great town may be proud. It has—

I. A *Day School Department*, which prepares youths for industrial, manufacturing, and professional pursuits.

II. An *Evening Science School*, which adds electrical engineering, steam, book-keeping, and shorthand, and includes London matriculation classes.

III. *Art Department*.—The usual four subjects. Light and shade (painting flowers and objects of art), the human form (antique and life), drawing and design class, architectural class, wood carving.

IV. *Chemistry and Dyeing Department*.—A two years' course, including chemistry, technology of textile fibres and mordants, practical qualitative analysis, chemical physics, organic chemistry, the natural colouring matters, experimental dyeing, the coal tar colours, mechanics and machinery applicable to dyeing and printing, &c.

V. *Textile Department*.—The loom: Elementary principles of weaving, simple patterns upon design paper, drafting, the healds; practical weaving, more elaborate patterns, combination and rearrangement, calculations for yarns and fabrics, designs for fancy goods, dobbies and wythes; the Jacquard machine, and simple figures formed by weft, by warp, or both; double cloths, figured double cloths, triple or multiple cloths; designing for elaborate fancy goods, gauze fabrics, figured gauze, velvet and pile fabrics generally. Classes are held for the study of cloth structure and analysis, and of colour.

VI. *Engineering Department*.

\* Second Report of Commissioners on Technical Instruction, vol. i., pp. 119-122.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

This is fitted with every requisite for a three years' course, followed, if need be, by a special course. Drawing offices, lecture rooms, and workshop are provided, the last furnished with the most modern type of machine tools and appliances, such as a 12-inch treble-gearied break lathe with bed 32 feet long, planing machines, slotting, milling, cutter-grinding, wheel-grinding, and other machines, with smith's hearth, pneumatic power hammer, circular saw, &c. High-class work is turned out in steam engines and tools. Certificates of proficiency and prizes are granted annually, and the college diploma in mechanical, civil, or electrical engineering and in architecture is granted to students passing in the complete course.

The Durham College of Science is another noble institution, and under its distinguished principal, Prof. W. Garnett, it is offering to the northern counties rare and varied opportunities for technical education.

Our special technical schools are not equal to those of more general character, but improvements are flowing in. We need the best, not makeshift schools, but have been slow to grasp the real dimensions of the work. It would be highly injurious to have a number of ill-organised and ill-supported voluntary institutions. Schools with a large staff, each member of which is expert in his own province and is well paid for his sub-division of the work, are what England needs for the great centres and neighbourhoods.

The City and Guilds Institute undertook some few years ago to provide London with intermediate technical schools, and it has not forgot its word.

## TECHNICAL EDUCATION IN LONDON

is of immense importance, the metropolis being the greatest manufacturing as well as the largest inhabited town in the world. When we reflect that the men and boys in its various trades are as follows,\* (see page 462) and when, further, we give due weight to the fact that in certain *highly-skilled* arts and handicrafts alone there are engaged in London 54,551 men and 5,764 women (of course included in following total), we shall better realise the urgency of the question before us. How to help this unparalleled aggregate of busy workers to reach a higher level of taste and manipulative skill in their callings is no mean part of the national problem—how to keep England employed and in the forefront of the world's industry. Towards this end the City and

\* Census figures quoted by Mr. Llewellyn Smith in his admirable Report to the London County Council on Technical Education, p. 88.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

Building trades.....	135,805
Engineering and metal trades .....	53,134
Wood and furniture trades.....	60,209
Fancy trades.....	31,656
Paper, &c., trades.....	5,124
Textile trades .....	7,981
Chemical, glass, and pottery trades .....	18,028
Printing trades.....	46,099
Clothing trades.....	77,712
Food, drink, and tobacco trades .....	98,303
Shopkeepers and dealers.....	30,201
Commercial (including 80,699 clerks) .....	100,573
Labourers for road, rail, and conveyance .....	277,969
Navigation .....	18,095
Public administration .....	47,081
Professional .....	54,093
Domestic and extra service (excluding females) .....	47,436
<b>Total.....</b>	<b>1,109,499</b>
Same trades :	
Boys (under 20 years old) .....	178,088
Women and girls .....	591,932
Girls (under 20).....	148,888
<b>Grand total.....</b>	<b>1,819,007</b>

Guilds of London Institute have done more than any other body. Their work began after an inquiry conducted by such eminent names as Armstrong, Galton, Donnelly, Huxley, and others.

There is a Central Institution, Exhibition Road, where teaching of the highest kind is given in applied physics, mechanics, and chemistry, suitable for directors and managers of industry. In 1891-92 there were 314 students in the wood-carving school. £90,000 has been spent on the building, and it costs £12,000 a year to carry it on. Each student costs about £60, but the fees are only £25. The institute maintains a sort of university rank, and requires no aid from the London County Council. The Physical Department is under the direction of Prof. W. E. Ayrton, F.R.S., the well-known authority in electrical technology, who was President of the Institution of Electrical Engineers in 1892. The Mechanical, Engineering, and Chemical Departments are admirable. Prof. Ayrton's Department is, however, specially noteworthy for its three electrical research laboratories, dynamo-room, testing laboratory, and the heat, optical, magnetic, and acoustics laboratories, mainly for junior students.

There is an Intermediate Technical College at Finsbury for systematic teaching of boys from 14 to 18. The day school has 185 students—48 in the mechanical department, 99 in the electrical, and 38 in the chemical. The three professors are all Fellows of the Royal Society. Ten of the students have come from elementary

## TECHNICAL EDUCATION AT HOME AND ABROAD.

schools. This is the only purely technical intermediate school in London. The evening classes had over a thousand students, 334 of whom were apprentices (in 1891) admitted at half fee. The school of electrical engineering at Finsbury is of wide renown, and in the evening classes there are 400 electrical engineers or their employés and apprentices.

University College has departments of engineering, chemistry, and electrical technology. New electrical and engineering laboratories are being built, in addition to a new physical laboratory. The Slade School of Art is associated with the college.

King's College is sectarian, its regular students and all its officers and professors (those of modern and oriental languages alone excepted) being required by the charter to belong to the Church of England. But its technical and scientific work is extensive. There were some 800 to 900 students enrolled in the various classes in 1892. The evening classes are numerous, fourteen being technical. Lady Siemens gave an electrical laboratory, accommodating ten students at work, and costing £6,000.

There is a proposal for endowing with £10,000 the technical work in a teaching university for London.

## THE LEATHER TRADES SCHOOL,

IN Bethnal Green, situated in the East London colony of shoe-makers, teaches hand and machine made work in all branches.

## POLYTECHNIC INSTITUTES

ARE springing up in London. They are not like the polytechnics abroad—science universities—but places of evening recreation and instruction for persons at work during the day. No fewer than twenty schemes for these institutes have been passed or framed, and there is a central governing body, as well as a body of governors for each institution.

The *Regent Street Polytechnic* is the oldest, and has been carried on for many years at the expense of Mr. Quintin Hogg. The annual expenditure is £16,000, of which £9,000 is raised from fees. An enormous number of students are enrolled. Nearly 600 entries are recorded in art, over 1,000 in science and nearly 2,000 in technology. The fees are in most subjects 5s. per session. All kinds of technical work are taught, as follows :—

Plumbing .....	211	students.
Builders' quantities .....	95	"
Tailors' cutting .....	185	"
Printing and paper.....	212	"
Engineering trades.....	757	"

## TECHNICAL EDUCATION AT HOME AND ABROAD.

The Goldsmiths' Institute, for technology and recreation, has been erected at New Cross, at the cost of the Goldsmiths' Company, and was opened for work October, 1891. Its cost was £80,000, and it is endowed with £5,000 per annum. There are 51 heads of departments in the institute, and considerably over 9,000 entries for study in all classes, 7,378 quarterly and 2,143 sessional.

The People's Palace Schools are kept up by the Drapers' Company, and besides art and science, the technology of building, bricklaying, carpentry, plumbing, steam boiler design, machine construction, surveying, tailors' cutting, typography, &c., has been taught to hundreds of students. Besides these there are the Battersea Institute, the Borough Road Institute, the Chelsea Institute, the North-West London Institute, the North London Institute, and the City Polytechnic. London is not wanting in the number of institutions giving part of their time to technical work. There are—

The Bow and Bromley Institute.

The Guild and School of Handicraft.

Whitechapel Craft School.

North London and Borough of Hackney School of Science and Art.

Highbury Institute.

Working Men's College.

Westbourne Park Institute.

Onslow College, Chelsea.

Westminster School of Art.

Woolwich Polytechnic.

Lambeth School of Art.

Morley Memorial College.

Telegraphists' School of Science.

St. Thomas's Charterhouse School of Science and Art.

British Horological Institute.

Birkbeck Institution (branch of City Polytechnic).

## SCIENCE SCHOOLS IN LONDON.

THERE were in 1892 no fewer than 200 science schools aided by the Science and Art Department, including day and evening schools and schools of science attached to elementary day schools.\*

## ART SCHOOLS IN LONDON.

THERE are some 5,000 students in the district schools of art in London. The importance of art as a technical subject is self-evident. Drawing and painting are not the whole of art, for it concerns industries and handicrafts, and the materials in which they are carried on. It is necessary, therefore, to join art education to technical education as parts of one whole.

\* Report to London County Council, p. 175.



## TECHNICAL EDUCATION AT HOME AND ABROAD.

There are the "special" schools of art, such as the Royal Academy, the Slade School, and others. Then there are some twenty "Government schools of art," some of them departments of the large technical institutes at which we have glanced.

The Westminster Architectural Museum School has over 400 students, 366 of whom are studying from the life. This stands first, its students in many cases being already draughtsmen, black and white designers, modellers, and architects or architects' pupils. The Polytechnic School of Art has 800 pupils, but its work is not so superior. At the Bow and Bromley Institute art classes in drawing, 44 pupils were teachers out of a total of 87. In the painting (still life, &c.) classes of sixteen schools, out of 901 pupils 230 were teachers, 352 "of no occupation," and 101 pictorial artists. Only 250 students were learning design, London being far behind the provinces in this respect. Chromo-lithography is taught at the Royal Female School of Art, Bloomsbury; and tapestry painting, fresco and sgraffito work, furniture making, and repoussé metal work are taught at the Finsbury College. Wood-carving has its chief seat at the Institute of British Wood-carvers, supported by the Carpenters' Company, but drawing and design are not associated as closely as they might be either with this or any other form of handicraft teaching. The School of Art Wood-carving at South Kensington, a carving class at King's College, and some classes held by the Home Arts and Industries Association, are also operating with effect. But handicraft and art work should always be combined.

There are 110 art classes connected with the Science and Art Department, viz., 36 under the school board, 10 in secondary schools, 12 in voluntary elementary schools, 14 in pupil teachers' centres, and the remainder independently conducted by committees. Seven hundred children are receiving art teaching from special instructors in board day schools north of the Thames. Every London board school now built includes a specially constructed "art" room. It is proposed to make generous grants for art teaching from the educational funds of the London County Council.

The Commissioners on Technical Education pointed out that English drawing is accurate, but wanting in originality and boldness. They held that the Royal Academy and the Livery Companies should directly encourage design. They quoted from Sir Edward Baines and Mr. W. Morris the opinion that while in appreciation of beauty and love for beautiful lines and colours the English equal the French, the "discipline of the creative faculty is far inferior" in England. They record an interesting story of an English firm that took a Paris Exhibition prize in 1878 for a cabinet designed by a Frenchman, for which a German had cut the marqueterie and a German assisted by a Dane had done the work of a cabinet-maker. The

## TECHNICAL EDUCATION AT HOME AND ABROAD.

Commissioners recommended the establishment of schools and galleries of industrial art, and especially museums of textile fabrics; the removal of the limit of expenditure under the Free Libraries Acts; and other useful changes.

## THE NEW DEPARTURE IN COUNTIES AND COUNTY BOROUGHES.

We must now briefly exhibit the operation of the Technical Instruction Act, 1889, as supplemented by the Local Taxation (Customs and Excise) Act, 1890. This legislation has put a new face on the prospects of practical education in the country, although it is essentially incomplete, and must be followed sooner or later by consolidation of the over-lapping school authorities of the country. (*See plate 6.*)

The County Councils and County Boroughs of England and Wales all at once found themselves possessed of an income of some £750,000 a year, and enabled to raise a rate besides, for technical instruction. They soon made up their minds what to do with nearly all of the money. It was in their power to apply it to relief of local rates, if they preferred, but they have done otherwise.

APPLICATION OF LOCAL TAXATION RESIDUE TO SCIENCE, ART, MANUAL,  
OR TECHNICAL EDUCATION.

## ENGLAND.

- 49 Counties.—49 counties have sent returns,\* and of these 42 devote all the residue to education; 7 devote part to education; none have raised a rate, but some local authorities in certain counties have done so.
- 61 County Boroughs.—58 county boroughs have made returns, and of these 47 devote all the residue to education; 10 devote a part (1 not decided); Portsmouth, West Bromwich, and Ipswich, no return; 8 have raised or made grants from rates.

## WALES, including Monmouth,

to which the Welsh Intermediate Education Act, 1889, applies.

- 13 Counties. 13 counties have made returns, and of these 12 devote the whole residue chiefly under the above-named Act, 1889; 1 applies part under the above-named Act, 1889; 6 levy or use rate under Technical Instruction Act, 1889; 13 levy a rate under Welsh Intermediate Education Act.
- 3 County Boroughs.—3 returned, of which 3 apply all to technical education; 1 levies or uses a rate under the Technical Instruction Act; 3 levy a rate under the Welsh Act.

## SCOTLAND.

- 33 Counties.—32 furnish returns (Ross and Cromarty omits), and of these 20 apply the whole residue to technical education; 4 are considering the question of applying the whole; 2 apply the whole residue to relief of rates; while 6 give no sign of action.

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\* Return C., 7,112, of 1893.

# TECHNICAL EDUCATION AT HOME AND ABROAD.

82 Burghs.—80 furnish returns (Annan and Whithorn omit), and of these 7 are giving the whole residue to technical education; 21 are giving part to technical education; 1 is considering which to do; 51 are applying all the residue to relief of rates.

105 Police Burghs.—102 have made returns, and of these 9 are giving the whole for technical education; 18 are giving part for technical education; 9 are considering the question; 66 are applying the residue to relief of rates.

Some of the English County Councils (Cheshire, Stafford, &c.) have made grants to urban sanitary authorities on condition that the latter levy a rate, or contribute from rates, under the Technical Instruction Act, 1889, or provide funds otherwise.

Many County Borough Councils have decided to put the technical instruction paid for by them under their own control, in buildings erected or acquired by themselves.

It is evident that few local authorities are inclined to raise or use rates while money can so easily be obtained through the local taxation accounts. Out of 128 authorities that have come under the Technical Instruction Act, only 62 have contributed from rates, and that to no greater amount than £26,000 for 1892–93.

Wales is evincing greater public spirit in this matter than the rest of the country. The County Council of Glamorgan, in particular, not only devotes the whole of the residue to technical education, but it levies a rate of  $\frac{1}{4}$ d. in the pound under the Welsh Act, and also raises a rate of 1d. in the pound under the Technical Instruction Act, 1889, the latter producing £9,500 per annum. Monmouth, again, gives one-half of the residue and the proceeds of the  $\frac{1}{4}$ d. rate to technical education, and the other half of the residue to intermediate and technical education, while it intends to levy the 1d. rate under the Technical Instruction Act.

Technical instruction moves more slowly in Scotland, but one explanation probably is that some part of the teaching now being given in England under the new legislation has long since been imparted in the day schools of Scotland, where a much larger curriculum has been followed than in the day schools of England.

## THE WORK DONE IN SELECTED COUNTIES

WILL give some idea of the diffuse and piecemeal way in which expenditures are now being made pending the arrival of a better system of organisation, grading, and management for our schools.

*Bedfordshire County Council* (1891–92) raised £4,785; voted £850 to town councils and minor local authorities, spent £2,175 directly on technical education, voted £400 to grammar schools for apparatus, £100 to science classes, £1,431 to "other schools," £259 for scholarships and exhibitions, and £495 in expenses of organisation.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

Here is an interesting but highly diversified account. There is need of higher teaching in the county, for the Blue Book for 1892 returned only four departments of boys, girls, and mixed schools taking elementary science out of 161 departments, and only eight departments taking specific subjects, or 405 scholars out of 25,783 at inspection.

Among the subjects aided it is interesting to see design and modelling in connection with straw plaiting, and the chemistry of straw dyeing. Horticulture, fruit culture, dairying, farriery, ploughing, thatching, sheepshearing, cookery, wood carving are severally taught, but straw plaiting we naturally associate with Bedfordshire. But even here there is something to be learned from Europe. A writer in the *Technical World* (Sept. 2, 1893, p. 242) has well pointed out how much of taste and skill is being thrown into straw plait abroad. At Wohlen, in Switzerland, new patterns are constantly being produced in the season. Great varieties of patterns are worked from, and M. Bruggisser said that an average plaiter earns from six to eight francs a week if she gives her whole time to it. Too often in Bedfordshire the workers are all working at one pattern, and there is not the same artistic sense and manipulative skill. A nimble, middle-aged woman, near Leighton, could only earn 4d. a day when she had made a score of "brilliant," and she had to pay for material, and work on speculation. The Swiss worker works to order, and her earnings are net. Such a school for basket-making and wicker-work as that at Fribourg, Switzerland, proves that in associating drawing, art, and design with that kind of work Luton may learn something.

Take another agricultural county, viz.—

Berkshire received £5,691. Handed £1,300 to local authorities. Spent £2,000 in lectures to elementary school teachers, and in the villages, on agricultural and kindred subjects; £1,455 in grants to dairy schools, cookery, bee-keeping, cottage nursing, and bent ironwork; £250 in agricultural scholarships; and £300 for organising secretary.

Reading County Borough has spent £4,127, chiefly in altering one building and restoring another, for a collection of antiquities and for a school of science.

Here it will be observed that a considerable sum is being spent in educating teachers. It is well known that subjects go untaught in the elementary schools for lack of qualified teachers, but it seems hardly fair that the nation's money should be spent to do what ought to be done before teachers have the mental fortunes of the children entrusted to their care. Our system of supplying teachers to rural schools is radically wrong. Managers who cannot guarantee competent instruction should forfeit their right to control any grant-aided school.

We append a list of the counties showing the amounts at their disposal for technical, manual, and intermediate instruction.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

## THE COUNCILS AND THEIR FUNDS FOR TECHNICAL EDUCATION.

The amounts are for the latest year returned, unless it is otherwise stated. The figures are totals for counties, including the boroughs within them.

	£	s.	d.
Bedford .....	4,785	9	8
Berks .....	5,691	0	6
Reading (two years) .....	4,127	6	9
Buckingham .....	5,896	18	8
Cambridge .....	3,572	12	9
Chester .....	23,294	10	8
Cornwall (from beginning) .....	6,000	0	0
Cumberland (from beginning) .....	7,231	0	0
Derby .....	10,700	0	0
Devon (from beginning) .....	35,210	15	2
Dorset .....	6,000	0	0
Durham .....	15,565	17	1
Ely, Isle of (county) .....	2,294	9	9
Essex .....	16,459	8	10
Gloucester .....	12,752	11	0
Hereford .....	2,000	0	0
Hertford .....	7,056	17	4
Hunts .....	1,960	0	0
Kent .....	34,582	7	1
Lancaster .....	100,235	10	0
Leicestershire .....	8,355	2	7
Lincoln .....	21,993	13	11
London .....	57,000	0	0
Middlesex .....	4,500	0	0
Monmouth (residue and two rates) .....	8,465	6	4
Norfolk .....	12,012	1	3
Northampton (two to three years) .....	17,252	17	4
Northumberland .....	12,043	14	1
Nottingham .....	9,927	6	3
Oxford .....	6,267	19	8
Rutland .....	250	0	0
Salop .....	7,182	12	11
Somerset .....	17,274	5	10
Southampton .....	10,464	1	2
Stafford .....	24,786	12	2
Suffolk, East .....	4,072	6	9
Suffolk, West .....	2,351	4	10
Surrey .....	19,374	0	0
Sussex, East .....	9,892	13	8
Sussex, West .....	3,792	2	2
Warwick .....	36,910	7	6
Westmorland (three years) .....	2,724	11	7
Wight, Isle of .....	2,186	11	10
Wilts .....	10,156	9	11
Worcester .....	10,537	12	0
York, East Riding .....	10,534	18	2
York, North Riding ..	19,235	9	2
York, West Riding .....	53,764	17	5

## TECHNICAL EDUCATION AT HOME AND ABROAD.

## WALES.

Anglesey .....	1,098	0	0
Brecon .....	1,866	0	0
Cardigan .....	1,864	0	0
Carmarthen.....	3,997	0	0
Carnarvon .....	3,491	0	0
Denbigh .....	4,368	0	0
Flint .....	2,917	0	0
Glamorgan .....	29,027	0	0
Merioneth .....	1,755	0	0
Montgomery ....	2,913	0	0
Pembroke .....	2,500	0	0
Radnor.....	1,150	0	0

## SCOTLAND—COUNTIES.

Aberdeen devoted £1,966. 16s. 4d. out of residue. Itinerant instructors at work. Teachers sent to University of Aberdeen for training. Fisheries and veterinary science included in subjects.

Argyll devoted £923. 14s. ; £573 of it spent through nine school boards.

Ayr.—Amount, £1,815. 10s. 4d. Mining, navigation, fishery, agriculture, &c.

Banff.—Amount, £398. 12s. 8d ; £68 to school boards for scientific apparatus. Marine zoology, dairying, navigation, &c

Berwick.—Amount, £600 Teachers helped to Edinburgh University. School boards aided. Ambulance and sick nursing, as well as subjects named above.

Bute.—Amount, £121. 4s. 8d. ; £80 to butter making.

Caithness.—Amount, £286. 17s. 11d. Apparatus to school boards and formation of dairy classes.

Clackmannan.—Amount, £118. 4s. ; £60 in relief of rates. Lectures on dairying.

Dumfries.—Amount, £983. 19s. 2d. Lectures to farmers on agricultural science, including food and manures, grasses, diseases of plants, veterinary science and practice, &c.

Dumbarton.—No return.

Edinburgh.—Amount, £1,531. 19s. 6d., allocated among the four county districts. Grants to technical colleges and institutes, mining, wood carving, ironwork, dairywork, and usual subjects taught.

Elgin.—No return.

Fife.—Amount, £1,649. 10s. 6d. Chemistry classes for teachers established at St. Andrews, science and art subjects. farriery.

Forfar.—Amount, £1,224. 10s. ; grant of £1 for passes in machine construction and drawing and mathematics in science and art classes, grants to dairy school.

Haddington.—No return.

Inverness.—Amount, £300. Cookery, navigation, agriculture. Grants for science and art successes in various schools.

Kincardineshire.—Amount, £500. Dairywork. Voted remainder to school boards.

Kinross.—Money used in relief of rates.

Kirkcudbright.—Amount, £718. 16s. 9d. Agriculture and agricultural chemistry, popular lectures, butter and cheese making.

Lanark.—Sum not returned. Upper Ward: Amount, £175, for agricultural and chemistry classes, butter, cheese, cookery, veterinary, &c.

Middle Ward: Money apportioned to school boards Lower Ward: Relief of rates.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

Linlithgow.—Amount, £174. 11s. 5d. Grants to school boards which provide technical instruction.

Nairn.—No return.

Orkney.—Amount, £100. Dairywork and scientific apparatus.

Peebles.—Amount, £261. 2s. 3d. To Peebles School Board for board school lectures on dairying, &c.

Perth.—Amount, £2,002 15s. Secondary schools, £350; school boards, £1,202; teachers' travelling expenses.

Renfrew.—Amount, £948. 9s. 4d. Agricultural Society for lectures, grant for improvement of cookery on board ship, school boards, and science classes.

Ross and Cromarty.—No return.

Roxburgh.—Amount, £300. No scheme as yet returned.

Selkirk.—Amount, £141. Dairywork, &c.

Shetland.—Rates.

Stirling.—No return.

Sutherland.—Cookery.

Wigtown.—Amount, £478. 15s. Cookery, fishing, sanitation, &c.

## BURGHs.

A total of about £12,000 is being spent by the Scotch burghs in science, art, and technical instruction.

The greatest benefit must result from action and expenditure by so many local authorities in all parts of the kingdom. The Technical Instruction Acts are no doubt tentative. But until something better is agreed upon, the county grants must be regarded as an invaluable instrument for the elevation of the people. Take (*see plate 7*)

## LANCASHIRE,

WITH its population of 3,957,954, its 693,494 scholars on the registers, and the vast number of children who quit its 1,780 elementary schools every year. The whole county has had only 46 school boards (the same number as Bedfordshire with 160,000 population), while Devonshire has had 151 for a population of 631,000, and Yorkshire has had 243 school boards for a population of 3,208,000. Local representative oversight of education is what Lancashire has needed, and the duties which have devolved upon its local authorities since 1889 will stimulate interest in education and bring its higher forms within reach of thousands who left the day schools far too soon.

The county has resolved to apply nearly all its receipts under the Acts to technical instruction, and these have exceeded £40,000 per annum. Since the Act of 1890 came into operation £101,400 has been allocated for this purpose. True, the rating powers of the county have been largely in abeyance, for only £3,300 was raised in rates and subscriptions (the subscriptions towards buildings not included) in the whole area, urban and rural, during 1891-92. But the necessity has not as yet been felt.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

It will be interesting to see among what institutions and for what subjects this grant was distributed for 1892-93. Of course these particulars are for the administrative county only, the fifteen county boroughs having their own budget and programme.

The urban districts received .....	£21,500
The rural districts received .....	6,000
Cookery (rural districts).....	1,000
Special grants for apparatus .....	3,308
Special grant to University College, Liverpool.....	400
Special grant to Owens College, Manchester.....	400
For some minor deficiencies .....	15
Harris Institute, Preston, for agricultural classes .....	650
Migratory dairy school ..	1,500
Navigation.....	200
Fishery .....	250
Saturday classes and exhibitions for teachers in elementary schools .....	3,000
University extension lectures .....	700
Fixed cheese schools.....	1,500
Examination expenses .....	400
Horology (at Prescot).....	250
Instruction in practical agriculture.....	500
Mining .....	500
Wigan Mining School.....	500
Plumbing and sanitary science .....	500
Furnishing premises .....	300
Silk industry.....	500
Union of Lancashire and Cheshire Institutes .....	100
Horticulture and bee-keeping .....	800
Training teachers in cookery .....	200

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£44,978

Since 1891 the Council have offered:—

- (a) 56 scholarships of £60 a year for three years—30 for science, 10 for art, 16 for commercial subjects, tenable at Oxford, Cambridge, London, Paris, Trinity College, Dublin, the Owens College, Manchester, and University College, Liverpool.
- (b) 306 exhibitions—56 value £15, 250 value £10, tenable in the county.
- (c) 18 agricultural scholarships of £20 a year for three years.
- (d) 24 agricultural exhibitions of £15 each for three years.
- (e) 40 exhibitions of £10 each and 40 of £8 each, for teachers, on results of examinations at the Saturday classes.

During 1893-94 the sum available for scholarships and exhibitions exceeds £7,500. In the whole county, apart from the county boroughs, the technical classes yield the following figures:—

Grants from County Council.....	£26,758	5	2
Subscriptions and donations.....	1,026	14	10
Fees .....	4,166	7	11
Government grants.....	3,141	14	3
Rates levied .....	1,115	19	9



## TECHNICAL EDUCATION AT HOME AND ABROAD.

It is obvious that under a proper system of local educational authorities for dealing with elementary and secondary education the rates would not stop at so trifling a figure. The resources of the county may be guessed from the following table :—\*

	Population.	Ratable value.
Liverpool .....	517,951	.. £3,333,302
Manchester .....	505,343	.. 2,999,372
Salford .....	198,136	.. 781,854
Oldham .....	131,463	.. 539,610
Blackburn .....	120,064	.. 468,574
Bolton ....	115,002	.. 457,022
Preston .....	107,573	.. 379,332
Burnley....	87,058	.. 316,028
Rochdale .....	71,458	.. 291,850
St. Helens .....	71,288	.. 301,866
Stockport (part of town is in Cheshire)	70,253	.. 69,164
Bury .....	57,206	.. 258,794
Wigan .....	55,013	.. 179,220
Barrow-in-Furness.....	51,712	.. 243,494
Bootle .....	49,217	.. 449,532
Total.....	2,208,737	£11,069,514

Having surveyed in some detail, the nature, need, and distribution of technical education in England, Scotland, and Wales, we must briefly notice the state of things in Ireland, and then in other parts of the world.

## IRELAND AND ITS AGRICULTURAL EDUCATION.

For some years agricultural instruction has been obligatory for boys in rural schools in Ireland. Ireland long held a lead in the place she gave to industrial education. A recent rule requires girls, after passing through the stages of the fifth class, to devote the rest of their school life to industrial training. The curriculum of Irish schools has embraced book-keeping, needlework, agriculture, drawing, geometry, mensuration, trigonometry, handicraft, sewing machine, domestic economy, cookery, dairying, management of poultry, hygiene, the physical sciences, navigation, languages, and instrumental music. A results grant of 5s. is allowed for every pupil who has passed in agriculture. Poverty and a constantly waning population—not any narrow policy of the Board of Commissioners—must account for the backwardness of Irish peasant education in the face of such an excellent plan of technical and manual subjects. Nor has that plan failed to yield some splendid results. Some capital special schools for agriculture and dairying are in operation. Seven or eight hundred dairymaids have within

\* P. 559, Report of Lancashire County Council, 1891–92.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

the last few years been thus trained in their calling. Nearly 100,000 boys are regularly instructed in agriculture from text books of the subject.

The Local Taxation (Customs and Excise) Act, 1890, does not run in Ireland. But in 1892 the Science and Art Department issued a memorandum in which imperial grants were, on given conditions, offered for technical instruction in Ireland. The Technical Instruction Act, 1889, does apply to Ireland, and, where local authorities adopt it and raise money for technical instruction, the Science and Art Department meet that outlay with grants of equal amount for subjects outside the directory of that department.

The Corporation of Dublin has raised the full rate of 1d. in the pound. The Belfast Corporation has voted £750 a year to Belfast technical schools. Cork has levied a rate of  $\frac{1}{4}$ d. in the pound for science classes at the Municipal School of Art. The Pembroke Township Commissioners are maintaining the Technical and Fishery School at Ringsend. A Technical Association is to be formed for Ireland, and Government is to be asked to make grants which shall be the equivalent of the local taxation receipts in England and Scotland. The National Schools Board has a model farm at Glasnevin, near Dublin, where teachers are practically instructed in agriculture. Many of the schools under the National Schools Board have school gardens and small farms, where the lads are accustomed to agricultural work. Ireland teaches us how to popularise agricultural instruction. We have of course fine Agricultural Colleges at Cirencester and Downton, with high fees. There is an experimental farm at Rothamstead, and with it a splendid laboratory of agricultural research, founded by Sir John Lawes. But a few noble institutions of that class do not reach the great farming class, and still less the labourers. Agriculture should be made a compulsory subject in England, as in Ireland, in rural schools. Each school should have its garden. A knowledge of plants and animals should be imparted in the early standards, and lads in the older standards should be taught something about the putting together of an agricultural machine, and the use and meaning of the lever, the pulley, the wheel and axle, the spirit level, the barometer, and the thermometer. Farm schools are needed for those who can go higher, where agricultural apprentices could learn chemistry, land surveying, book-keeping, and the principles of agriculture, as in France. When secondary education is placed under local authorities many middle-class schools could have a farming department of 100 acres. Mr. Jenkins, secretary to the Royal Agricultural Society of England, pleads for forestry as a branch of advanced agricultural education. Desolate lands in Great Britain and Ireland are waiting for the planter. The destruction of

## TECHNICAL EDUCATION AT HOME AND ABROAD.

colonial forests has had many disadvantages. India and Cyprus are taking measures to preserve and manage forests, and the better continental nations have one or more schools of forestry.

## TECHNICAL AND MANUAL INSTRUCTION IN THE UNITED STATES.

EDUCATION is dealt with in the States on a colossal scale. A country which in 1889 could spend some £30,000,000 on its public schools, is not likely to fail in the energy and practical aptitudes of its school system. There were at that date—for up-to-date reports of its education cannot be had even in America, owing to geographical and political conditions—

12,931,259 scholars in the elementary grade schools, or 94·2 per cent.

668,461 scholars in the secondary schools, or 4·9 per cent.

126,854 scholars in the superior schools, or 0·9 per cent.

The expenditure per scholar in 1889 was on the average £3. 1s. In the Western States it was £6.\*

Manual training in the United States, as I have already tried to show, has been pursued for intellectual and moral ends as well as for the sake of national industry. It is now in full swing. Manual training is being incorporated into the regular public school work. The Readfield Wesleyan Seminary (Maine) seems to have been the first school of the literary and manual labour kind, and that goes back to near the beginning of the century. Other schools grew up. But an epoch was made in 1862 by the passing of the famous Act of Congress for establishing colleges of agriculture and the mechanic arts. It reads: "The leading object shall be to teach such branches of learning as are related to agriculture and the mechanic arts in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." That Act put at the service of these objects some of the vast resources of that country in land and wealth. Foreign observers like M. Buisson had noted a danger. The young people were too averse to manual labour, and were apt to think dignity did not lie in that direction. But manual exercises, "trade schools," "business colleges," and splendid technical institutes are helping to form right sentiment on the subject. There are 12 business colleges in Illinois, 16 in Iowa, 16 in Massachusetts, 28 in New Jersey, 16 in Ohio, 19 in Pennsylvania. The business college teaches how business is transacted in large cities in banking, real estate, insurance, and commercial houses. The students have to keep and work a bank in all details. So with other callings prepared for.

In 1867 Massachusetts citizens petitioned the Legislature to introduce schools for drawing free to all men, women, and children

\* United States Report, 1889, p. 25.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

in all towns of the commonwealth of more than 5,000 inhabitants. American schools now offer manual exercises in variety, from the pretty fabrications of the kindergarten to the construction of the steam engine. Professor le Conte, of the State University of California, said: \* "Book work in science is a sham. . . Observing and doing must co-operate with thinking. There are three great departments expressly adapted for this co-operation—natural history, drawing, and hand-work." The co-operation is now going on over the whole field.

The New Haven (Connecticut) schools go through a course in "manual arts." Each boy first learns the names of the different parts of the tool, how to hold and use it, how to sharpen it on the oilstone, and how to keep it in order. The course includes thirty-one lessons, some of them as follow:—

- |   |   |
|---|---|
| 1. Hammer, chisel, and try square.          | 11. Glue joint.   |
| 2. Chisel to line, halving, half dove-tail. | 12. Blind, or mitre mortise.  |
| 3. End mortise and tenon, and boring.       | 13. Mitreing, completing and dove-tail.                               |
| 4. Sawing square, through dove-tail.        | 14. Dovetail, completed.  |
| 5. Jack plane, cross-cut saw.               | 15. Framing and wedging.  |
| 6. Grooving, ripping saw.                   | 16. Planing to width.   |
| 7. Framing and halving.                     | 17. Dovetail.   |
| 8. Gauging—bevelling and chamfering.        | 18. Smoothing and sand-papering.                                      |
| 9. Draw-knife and planing to line.          | 19. Nailing, moulding.  |
| 10. Mortising.                              | 20. Finish up the box, with mouldings, according to individual fancy. |

The cookery school first appeared in 1874 in New York City. The institution has lived down the laughing objection that it has no obvious connection with mental development. Properly taught it is a good object lesson in chemistry, while care, patience, and forethought are cultivated. A splendid course of cookery lessons has been taught in the Washington schools (D.C.) It is entertaining reading to begin with:—

Give directions for making a fire, and make one.

Boil salt water and fresh water; note times taken.

Break an egg into boiling water, and another into cold water; note the results; boil the cold water with the egg; draw inferences.

Experiment with salted and smoked meats.

Boil rice, potatoes, and mash; boil beets, onions, and squash; boil oat-meal (cracked), wheat, cerealine.

Stewing: Experiment with tough meat and vegetable acids; show where in the animal tough pieces of meat are found; explain why they contain so much nutriment, &c.; make an Irish stew without dumplings; make "bubble and squeak."

Broiling: Names and positions of best steaks; lard and oleomargarine, from what and how made.

\* Paper read before Teachers of California, December, 1887.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

And so on through the mysteries of baking and frying for seventh and eighth grade scholars, to those high school elaborations of fancy and invalid cookery which leave griddle cakes, fritters, apple oyster, clam, doughnuts, and cruellers far behind.

An excellent manual training course is in use for the eight grades of the primary and the eight grades of the grammar schools of New York. Several of the best of the manual training institutions owe their origin to Professor Kunkle's visit to the Imperial Technical School of Moscow, and were formed on the "Russian system." The Massachusetts Institute of Technology (*see plate 8*), the St. Louis Manual Training School, the Chicago Manual Training School, and the Baltimore Manual Training School deserve prominent mention. But these first-rank schools are only a small part of the national machinery. Everywhere the attempt is being made to train the mind and the hand together. The American youth is told that he can only keep abreast of the world's methods of production by leaving school a hand-worker and acquainted with science and art. The rush of machine invention is revolutionising some trades and abolishing others. As was stated by Mr. Powderly, at the State Teachers' Association of Pennsylvania: "Were a shoemaker, dead thirty years ago, to enter a shoe manufactory of the present day, he would turn away sick; he would be unable to understand the machine stitcher, heeler, welter, laster, pegger, waxer, and buttoner."

An important Commission was appointed in 1887 by the Legislature of Pennsylvania to inquire into "industrial education" as given in America and elsewhere, and its report, published in 1889, contains the fullest account of the manual and technical systems of the States. The Land Act of 1862 required each State adopting it to have at least one college where the "leading object" should be "to teach such branches of learning as are related to agriculture and the mechanic arts, without excluding other scientific and classical studies." It granted 30,000 acres of public land for each senator and representative in Congress. This splendid scheme has brought into existence a large number of strong and progressive institutions. Some of them are organically graded with the State day schools, and thus round off the system of education in a way not yet known in England.

The Commission reported in favour of manual training for all public schools and of State handicraft schools for vagrant children. Particularly it recommended that no diploma be given by a normal school to any pupil who has not had a course of manual training.

As early as 1872 Massachusetts authorised by Act of its Legislature the teaching of agriculture in *all* public schools, the establishment of industrial schools, and the teaching of navigation. New Jersey

## TECHNICAL EDUCATION AT HOME AND ABROAD.

moved in 1881. New York State passed in 1888 an Act authorising the industrial manual arts in the public and normal schools. Pennsylvania followed in 1883.

Some normal schools allowed females to learn the use of tools. Whitewater and Milwaukee, in Wisconsin, have many female students, and they learn to handle hammer, saw, square, auger, bit, plane, chisel, forge, lathe, &c. Twenty-four of the States of the Union give free tuition to student teachers in the training colleges. The thorough training of teachers in manual arts is being realised, and is all the more imperative from the great growth of population and the "influx of an uneducated foreign element that appears to have but little interest in the proper rearing of their young, and have produced a long list of uneducated voters in our commonwealth."\*

*State of Alabama.*—(1) The Alabama Polytechnic Institute at Auburn gives a course of carpentry, patternmaking, moulding and casting in iron and brass, forge work in iron and steel, chipping and filing, and machine work, with a drawing course, the whole covering three years. (2) The Tuskegee Normal School enrolls 294 students, and requires all to work. The school farm is of 600 acres, 475 acres in woods. Its brickyard turned out 150,000 bricks in one year. There is a carpenter's shop and printing office. All the buildings on the school grounds have been erected by students' labour.

*District of Columbia.*—The public schools give manual training from first to last—from the kindergarten of the young children to the bench and lathe work, the moulding and forging, in the seventh and eighth grades and the high school.

*Connecticut.*—The New Haven public schools send selected boys to a central workshop. Ten classes of 24 boys each from each grammar school receive two hours' instruction per week. The course of instruction has already been given.

## INDUSTRIAL EDUCATION OF THE COLOURED RACE.

THE John F. Slater Fund distributes 45,000 dollars annually among negro schools in the South expressly to foster hand training. Forty-four institutions received this aid in 1888, two of them for medical students. Industrial education is a very large, some say a too large, part of the school work of the negroes. This was felt to be necessary if the negro was to become a skilled workman at all. The principal of the Tuskegee State Normal School, Alabama, is a coloured man, and he has pointed out that the industrial work of the best coloured students enables them to pay nearly one-half of their board bills. In Shaw University, Raleigh (N.C.), there were 90 boys in the carpentry department, working forty hours per

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\* Pennsylvania Commission Report, p. 49.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

month, and 80 young women in the dressmaking department. The students are paid an average of ten cents an hour for work. The following is a synoptic view of the school provision for the coloured race:—

Class of Institutions.	No of Schools.	No. of Teachers.	No. of Pupils.
Public Schools .....	—	18,219	1,140,405
Normal Schools .....	30	229	5,439
Secondary Schools .....	15	106	3,705
Colleges .....	16	178	5,066
Schools of Science .....	2	18	434
Schools of Theology.....	13	64	725
Schools of Law.....	1	—	160
Schools of Medicine.....	2	18	110
	79	18,832	1,156,044

*Georgia.*—(1) The Atalanta University (unsectarian) has 17 professors and 518 students and graduates, and a mechanical course of three years in wood, iron, and steel work. The boys of the college, preparatory, and grammar school course take this instruction, together with the principles of farming and gardening. The mechanical department is housed in a building 100 feet by 44 feet and three storeys high, with rooms for 30 cabinet benches, one for 12 wood-turning lathes run by steam power, one for 12 forges and anvils, and a large room for mechanical drawing. (2) Georgia School of Technology at Atalanta. This was founded by Act of the Legislature, and is free to all students resident in Georgia. Outsiders pay fees not exceeding 150 dollars per annum.

*Illinois.*—(1) The Beardstown Public Schools have an excellent manual course, including primary work in splints, paper, clay, sand, relief maps, industrial drawing, and shop work. (2) The Chicago Manual Training School was founded in 1882, and its graduates are admitted free to various polytechnics and universities. (3) The Public Schools of Peru (Ill.) teach use of tools, and wood carving is done in connection with drawing lessons. (4) The Illinois State University was originated to promote the higher education of the industrial classes. Under the Act of 1862, 480,000 acres of land were granted to Illinois for such institutions. The tuition is free to candidates 18 years of age who pass an entrance examination which includes algebra through quadratics, physiology, natural philosophy, plane and solid geometry, and botany. The school of mechanical engineering is well equipped. Mechanical art and design, shop work, pneumatics and principles of mechanism and prime movers are carefully pursued.

*Indiana* teaches drawing and construction work in all primary schools. The State possesses a great treasure in the *Purdue*

## TECHNICAL EDUCATION AT HOME AND ABROAD.

*University.* John Purdue gave for its use £44,000, and its permanent endowment fund amounts to £66,000, besides property worth over £60,000. In 1888 it had 368 students:—

11 taking field and garden work.	307 taking laboratory instruction.
37 taking surveying.	167 taking industrial art.
105 taking shop work.	52 taking household industry.

One hundred and twelve of its students were females. The value of its scientific apparatus was £10,000. There are six special schools, besides a preparatory department:—(1) Agriculture, horticulture, and veterinary science. (2) Mechanical engineering. (3) Civil engineering. (4) Science, (a) biology, (b) chemistry, (c) applied electricity, (d) literature and history. (5) Industrial art. (6) Pharmacy. Applicants who have successfully completed the high school course of the State are admitted to the freshman class without examination at 16 years of age.

*The Rose Polytechnic Institute*, founded by the late Chauncey Rose, of Terre Haute, is another of the great institutions for technical instruction of which our American cousins have reason to be proud. It had 109 students in 1888. Its grounds and buildings are worth £30,000, and its scientific apparatus £5,000. Its endowment funds are £90,000. It offers practice and laboratory work in (1) mechanical engineering, (2) civil engineering, (3) chemistry, (4) physics, (5) drawing, and its programme of subjects and classes is a surprising one.

The mind of the reader would be wearied by particulars of all the manual and technical work being done in the Republic in the primary, secondary, and university stages. We can only urge those interested to seek for themselves the information which may be obtained from the proper authorities as to the work being done in the following and other institutions and localities:—

*Iowa.*—The State Agricultural College. Six courses of study, all scientific and technical. Free to all Iowa students.

*Maine.*—The Maine State College of Agriculture and the Mechanic Arts.

*Maryland.*—Baltimore Manual Training School, with 601 pupils; provision for 250 in carpentering and 75 in patternmaking, for 150 in machine shop, and 70 each in moulding, forging, and sheet metal.

*Massachusetts.*—The public schools of Boston have been active in manual instruction. The Massachusetts Institute of Technology: 720 students—130 taking surveying, 192 shop work, 692 laboratory.\* Springfield Manual Training School: 139 pupils in drawing, joinery, wood turning, wood carving.

\* For an account of this remarkable institution see Report published by Alfred Mudge and Son, Boston, 1893.



## TECHNICAL EDUCATION AT HOME AND ABROAD.

*Worcester Polytechnic Institute.*—383 pupils have graduated ; 168 resident in 1889. Endowment, £112,000.

*Minnesota.*—The public schools of Minneapolis. The University of Minnesota, with a college of mechanic arts. St. Paul's Public Schools. Six branches of woodwork.

*Missouri.*—The St. Louis Manual Training School—a department of Washington University.

*New Jersey.*—Public schools at Elizabeth, Montclair, Orange, Vineland, &c. Stevens Institute of Technology, at Hoboken: an elaborate curriculum and technical course. Newark Technical School: 175 students.

*New York.*—Albany High School. Pratt Institute, Brooklyn. Cornell University, Ithaca: 1,135 students and graduates ; value of scientific apparatus, £84,000; funds, £950,000; mechanical engineering; mechanic arts; industrial art. Public schools. College of City of New York: Students, 1,277; library, 23,869 volumes. The public schools.

*Ohio.*—Technical School of Cincinnati. Case School of Applied Science. Cleveland Manual Training School. The Toledo Manual Training School.

*Pennsylvania.*—Carlisle Indian School, for Indian youth: 300 at farming, 150 at various crafts. Haverford College. Girard College. Philadelphia Manual Training School: 325 pupils. Pennsylvania Museum and School of Industrial Art, Philadelphia: Department of weaving and textile design, chemistry and dyeing, tapestry painting, wood carving. Lehigh University. Pennsylvania State College: Elaborate technical courses. Swarthmore College. Tidionte Public Schools: Flower gardens kept by scholars in practical botany.

*Virginia.*—Virginia Agricultural and Mechanical College. The "Miller" Manual Labour School.

*Wisconsin.*—The University of Wisconsin. Public schools. White-water Normal School.

*Kentucky* has some schools of science; 1,176 students in business colleges; State Agricultural College, of large scope and £88,000 of funds.

*Louisiana.*—State University and Agricultural and Mechanical College at Baton Rouge.

These and other institutions, crowning a graded system of common school education that is the admiration of the world and the despair of some older countries whose education and religion seem to have got into each other's way, prove how rich is the supply of manual and technical instruction, especially in higher schools, in the United States.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

## GERMANY.

FROM the time when the Prussian king in 1717 ordered all parents to send their children to school, down to our own, Germany has been a school-loving country. We might go further back, to the great religious upheaval of 1517, and date the movement from that time. There are three groups of schools:—

- A. The Lower Schools, or People's Schools, which are purely elementary, and for both sexes.
- B. The Middle Schools—(a) Citizens' Schools for boys, (b) Girls' Academies, which are of larger scope.
- C. High Schools—divided into (a) the Realschule, (b) the Gymnasium, (c) the Real-Gymnasium.

The Realschule was established 140 years ago. It teaches modern languages, natural science, mathematics, industrial training, and prepares youths who wish to become engineers, surveyors, artists, civil officers, &c. The Gymnasium is the oldest kind of school, and is the Latin school of the Middle Ages. It is the classical school for boys. The Real-Gymnasium combines some of the features of the two others.

There were 418 gymnasia (or classical schools) in Germany in 1889. Prussia had 266; Bavaria, 35; Saxony, 17; Würtemberg, Baden, 14; Alsace-Lorraine, 16, &c. There were also 54 pro-gymnasia, *i.e.*, gymnasia with a six years' course instead of an eight years' course. There were 154 realschules and higher citizens' schools in 1889. The number of real-pro-gymnasia was 106. All told, Germany had 976 secondary schools at that time, with nearly 400,000 pupils. At the present time the country has 1,000 high schools, and they are so in fact, not merely in name. These schools prepare for the universities and polytechnics.

It has been said that German scholars are remarkably free from disorder. They only require to be taught and interested, and the teacher has no physical resistance to cope with. The Anglo-Saxon branch of the Teutonic family must modestly waive any claim to this form of juvenile excellence. They are rich in will power, however, if not in intellectual docility.

All teachers in Germany must be qualified. They must either possess a diploma from a "Wissenschaftliche Prüfungs-Commission," or one from a seminary or normal school.

*Fortbildungs-schulen*, *i.e.*, the continuation schools, are held in the evenings or on Sunday mornings. In many states, though not in all, attendance at these schools is compulsory. There are few half-timers, and no pupil teachers. The head teacher's duty is mainly supervision, and women teachers are few. Prussia, for instance, has 106 normal schools for men, but only eight for women. But

## TECHNICAL EDUCATION AT HOME AND ABROAD.

### INDUSTRIAL HANDICRAFT FOR WOMEN

is largely taught in the country, no fewer than 34,270 female instructors having taken part in this work in 1887, many of them being wives of country teachers. There were 4,874,347 scholars enrolled in the people's schools in 34,016 schoolhouses. A most remarkable fact is that 23,152 of these schools were under *one* teacher, and there were only 28,561 classes in these schools.

### SCIENCE AND ART TRAINING

ARE everywhere provided. Workshops are not connected with the primary schools, but drawing is universal, and apprenticeship schools are easily available. The girls' academies in Prussia give 14 hours per week to industrial teaching. Almost everywhere in Germany attendance is compulsory until 14. As has been said by an able friend of English education, who is also an unflinching advocate of a lengthened school-life for our children: "It is hardly too much to say that the two years' additional training the German child receives in the elementary school doubles its chance in life as compared with the English child." And if this is so, what must it not do to increase the nation's chance of success in the hand and brain rivalries of the world? The fact that

### RAGGED AND BEGGING CHILDREN

ARE rarely seen in Germany is due to the anterior fact that the education of children has for three generations been the earnest care of the German people. They are applying technical science to every department of industry in a way of which we have as yet little idea, and their polytechnics and practical technical schools are in advance of anything we have until lately possessed in England. Of some of these institutions we must now speak, but before we do so we must point out the wonderful

### SOLIDARITY OF GERMAN EDUCATION.

ALL classes and kinds of schools in a city stand in close and sympathetic relation to those higher institutions which are the crown of an educational system, such as art academies, museums, the astronomical observatory, the library, the gymnastic societies, and universities.

### TECHNICAL UNIVERSITIES IN GERMANY AND SWITZERLAND.

(See plate 9.)

GERMANY and Switzerland were quick to see the need for skilled assistants. Scientific high schools sprang up for the training of men who might compete with English engineers trained in the

## TECHNICAL EDUCATION AT HOME AND ABROAD.

workshop. The universities of fifty years ago did not meet the case, and consequently each state did its best to create technical institutions that would do so. Magnificent polytechnics arose like

- The Federal Polytechnic School at Zurich.
- The Polytechnic School at Munich.
- The Polytechnic School at Vienna.
- The Polytechnic School at Stuttgart.
- The Polytechnic School at Dresden.
- The Polytechnic School at Hanover.
- The Polytechnic School at Aachen.
- The Technical High School of Berlin, now the Charlottenburg Polytechnic.
- The Polytechnic School, Delft.
- The Polytechnic School, Moscow.

These schools cost £3,000,000 for building and fittings, and their maintenance costs £200,000 annually.

The *Zurich Polytechnic* was established by the Swiss Confederation in 1854. It is one of the finest in the world, and comprises seven special schools:—

1. Architecture, with a three years' course.
2. Civil engineering, three and a half years' course.
3. Mechanical engineering, three years' course.
4. Chemical technology, including pharmacy, three years' course.
5. Agriculture and forestry, two and a half years' course.
6. Normal school for training special science teachers.
7. Philosophical and political science.

Further, a preliminary course is provided in mathematics for those not yet prepared to enter one of these schools. There are 200 courses of lectures, 45 professors, and 13 assistant-professors, besides tutors, curators, &c. The institution spends over £20,000 a year. A few years ago the Federal Council voted to it £50,000 for the extension of the chemical laboratories. The cost to a student is £4 the half-year and £2 for laboratory practice, or about £12 per annum in the chemical department for the full use of these great opportunities.

Of the seven sessions the first three are given to theoretical subjects, such as pure mathematics, descriptive geometry, with drawing, mechanics, and physics treated mathematically. The work is considered almost too exhaustive for engineering students. The fourth session takes geographical statics, so important for bridge-designing. The sixth and seventh sessions deal with tunnels, stone and iron bridges, railways, canals, roads, geodesy, and other branches of engineering, besides the drawing and designing these call for. Diplomas are given for passing special examinations. The non-Swiss engineering students are 70 per cent of the whole, a fact which witnesses to the wide reputation of the school. Students come even from North and South America.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

*The Zurich Apparatus.*—The Zurich School Law of 1832 contains these noble words: "The children of all classes of society shall be educated according to the well-known principles of pedagogy, to be intellectually active, civilly useful, and morally good men and women." The instruments of education gathered in the polytechnic of that city prove that that law has been no empty formula. There are twenty-two collections, museums, &c. :—

1. Three libraries—of the school, of the canton, and of the city.
2. Engineering and architectural collections.
3. Plaster casts.
4. Specimens of construction and materials.
5. Antique vases.
6. 24,000 engravings.
7. Geometrical instruments.
8. Models of machinery.
9. Tools and models for applied mechanical technology.
10. Models and products for chemical technology.
11. Mathematical and geometrical models.
12. Specimens and tools of forestry.
13. Agricultural collection.
14. Science specimens, as of natural history, zoology, botany, geology, palæontology, &c.
15. Archæological collection.
16. Workshop for moulding and casting in clay and plaster.
17. Workshop for metal work.
18. Laboratory for chemistry.
19. Laboratory for agricultural chemistry.
20. Cabinet of physical apparatus and a physical laboratory
21. Institute of vegetable physiology, including microscopic and physiological departments, botanical collections, and hothouses.
22. Botanical garden.

The Zurich Polytechnic gives purely scientific instruction, it does not teach industries. But of course it directs the best thought and research of its *alumni* towards industrial development. Both in Germany and in Switzerland men trained at Zurich are holding important positions in industrial establishments.

In Prussia, foremen and workmen are not so well provided for as masters and managers in respect of technical education. Head men in engineering, chemistry, and architecture are extremely well served in such high schools as Berlin, Hanover, and Aachen. Civil Service engineers must attend one or other of these schools, and must present a leaving certificate from a gymnasium, real-gymnasium, or an upper real-school.

There are technical schools of a lower type called "real" and "trade" schools. The course in some is nine years, and these are called "upper real-schools;" in others six or seven years, and these are called "burgher" schools.

Prussia has building schools in Berlin, Nienburg, Eikernförde, Breslau, Höxtar, and Idstein. There is a school for machine

## TECHNICAL EDUCATION AT HOME AND ABROAD.

construction at Eimbeck; four weaving schools at Crefeld, Mulheim, and Eimbeck; a trade school for pottery at Höhr; trade metal schools at Iserlohn and Reinscheid. There are trade continuation schools for apprentices and artisans under 18, who can be compelled to attend, as their masters are to grant them time to do so. In that case the State pays half the cost. Agricultural schools, &c., are also in operation.

The polytechnics and universities between them have diffused scientific knowledge throughout Germany and given an adequate supply of men who can superintend industrial works and act as teachers in technical schools. It is here that England still fails. A list of some of the universities may be of interest, especially if we remember that their cost is as small as their equipment is elaborate:—

Universities.	No. of students.	Teaching staff.
Berlin.....	(4,995 3,900*	241
Leipsic .....	(3,166 3,111*	171
Munich .....	(2,049 2,017*	141
Breslau .....	1,682	123
Halle ..	1,414	—
Tübingen .....	1,414	—
Bonn .....	1,102	110
Göttingen .....	1,096	119
Würzburg .....	1,091	—
Lemberg.....	1,011	—

There are at least twenty-four universities in the German Empire, five in Switzerland, and nine in Austria, and from 30,000 to 40,000 students are being trained in them.

*Apprenticeship Schools in Germany.*—These train workmen in pure and applied art and in practical work in the shop. They have spread over Southern Germany and Austria, and are now in Prussia. The manufacturers demanded better workers. Three years is the course, in which the pupils are trained as designers, modellers, wood carvers, moulders, founders, turners and pressers, chasers, engravers, gilders, and etchers. The number of artisans attending the schools is increasing.

The Fortbildung or night schools of Bavaria help the apprentices' schools. The former are free, and are attended by middle-aged men as well as by young men. In old days the workshop was a school, and the handicraftsman was also an artist. But the apprentice does not now learn an entire trade at his work. Labour is divided into small operations, and every youth is called off in his turn to military life. It is therefore needful that the school should do its part by linking taste with strength, and so securing cheapness and attractiveness in products.

\* Auditors.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

*Chemical Colour Industry.*—The coal tar colour works of Germany and Switzerland, such as those of Messrs. Bindschedler and Busch, at Basle, Messrs. Meister, Lucius, and Brünig, at Höchst, and the Baden Aniline and Soda Works, at Ludwigshafen, possess trained scientific chemists in every department. At the first of these houses there are ten laboratories, apart from workshops, where the colour chemist and the workman chemist meet together. The head chemists have been through Zurich Polytechnic. A scientific library is provided to assist the under chemists in their preparations. Laboratory experiments at Messrs. Bindschedler and Busch's resulted in the manufacture of the colouring matter now known as malachite green. These improvements brought down the price of the colour from £2 to £1. 4s. per kilo.

*Calico Printing—Alsace.*—The heads of the firms are very able men. A great proportion of them speak English. Trained chemists are engaged. An art gallery and museum for the study of fine art and design has been created at Mulhausen, at a cost of £20,000, and there is an unrivalled trade museum of designs, patterns, and choice examples of weaving and printing. The poorest boys of ability in the elementary schools are encouraged to attend the drawing school and afterwards the engraving school, where they are gratuitously trained in the processes of engraving for the calico printer.

*At Chemnitz, Saxony,* there is a remarkable higher trade institute, which cost for site and buildings £82,000. It has four schools—a technical school for chemists, &c., a foremen's school, a building school, and a drawing school. The town is also distinguished for its weaving and weaving school. A technical knowledge of dyeing is required for the exquisite work here produced. The manufactures of the district owe their excellence largely to the Chemnitz Weaving School, the classes of which are attended by the sons, assistants, and overseers of all fancy manufacturers of the town. We can only append a brief notice of other establishments.

*The Building Trade School at Stuttgart.*—A fine building, cost £50,000. Two preparatory courses and three scientific building courses.

*The Metallurgical School of Bochum, Westphalia.*—Established by iron and steel manufacturers. Open only to workmen employed four years in iron or engineering.

*Crefeld Weaving School.*—The Royal Commissioners said that "German building schools and mining schools were not dangerous to us, but their weaving schools were more so." Crefeld is a great school, and popular with manufacturers. It teaches drawing and the loom; painting from models, natural plants and flowers for printing and other branches; machine drawing; fabrics decomposed; original design; unmounting and rebuilding power-looms, and forge

## TECHNICAL EDUCATION AT HOME AND ABROAD.

work. It has a museum of textile fabrics, and the Krauth collection of historical patterns. The dyeing and finishing departments of the school are complete. The silk industry of Crefeld is largely due to the school.

*The Industrial Art Schools of Germany* apply art to manufactures more than those of France. The Dresden School has revived old and established new industries. It is without workshops, but sells its designs to manufacturers. It has departments of designing, architecture, decorative painting, ornament, figure drawing, art modelling, decorative painting from the figure. It has 16,000 mounted patterns, 11,000 examples of embroidery and lace, and a school museum containing 140,000 patterns of textile fabrics of all kinds and ages. The director is a professional designer in metal work, porcelain, furniture, wall-papers, and textiles.

*The Industrial Art School of Vienna* practises carving, metal-chasing, and working in brass and bronze. In wood-carving it far surpasses England. Many students work certain hours, and then sell the product of their labour. These succeed best. (*See plate 10.*)

The Royal School of Art Embroidery, Vienna, is wholly technical. Girls from the primary schools are carried forward to every kind of fancy needlework and designing. There are no fees save for foreigners. The Commissioners thought the instruction given here was the highest they knew in any school of the same class. Schools on a somewhat larger plan are needed in all large towns. Art-schools are not enough, and are over-crowded. What is wanted is to open up new pursuits for women, in which art can be combined with domestic life.

## TECHNICAL EDUCATION IN FRANCE.

FRANCE has centralised her system of public education beyond what is permitted in English-speaking countries. France is divided for educational purposes into 17 académies (educational districts), 87 departments, 36,121 communes, 362 arrondissements (sub-divisions of departments), and 2,865 cantons (sub-divisions of arrondissements). There is a municipal council for each commune.

In 1889 the following was the enrolment of scholars in all classes of schools and institutions:—

Infant Schools .....	500,000 = 8%
Primary „ .....	5,500,000 = 88%
Secondary „ .....	170,000 = 3%
Normal „ .....	9,000
Universities.....	18,000

France has for a considerable time taken pains to prepare her artisans for skilled, tasteful, and finished work. The application of the fine arts to industry has brought untold wealth to the nation.



## TECHNICAL EDUCATION AT HOME AND ABROAD.

As has been said: "France has schooled her workmen in classic models until hereditary descent of aptitudes for tasteful ornament and beautiful finish is to be counted on among her people." \*

The industries of each locality are considered in each commune, and drawing is everywhere taught. Schools of industrial apprenticeship are provided, either as part of the primary schools or separately. Manual training was made an integral part of the curriculum by the law of 1886; both boys and girls are provided for in this respect. The ordinary schools of France excel the English as a preparation for the technical school. †

*Technical Education in Paris Primary Schools.*—Paris has some 600 public elementary schools, besides some 126 kindergarten schools for younger children. Ten per cent of the expenditure of Paris is for education. Soup is given to infants at 11 o'clock, and they eat food brought with them. In 90 of the 285 elementary schools for boys in Paris there are workshops for iron and wood work under a superintendent. A good specimen of this arrangement is the

*Primary School, 109, Avenue Parmentier.*—It has a wood shop with twelve carpenter benches, and four lathes against the wall. One boy turns for a quarter of an hour, two others watching him, and each takes work and watch in turn. Joining and dovetailing are done at the bench, but at the lathe they can turn a long plain stick into seventy-six different ornamental pieces, made either to stand separately or to fit into others and produce a finished object when combined. If ten pieces are made well, the effort is rewarded by permission to make something for themselves and take it home. The iron workshop contains twelve vices arranged along the walls, a boring machine, anvil, and forge. ‡

*Superior Primary Schools* § (Ecoles Primaires Supérieures) or high schools, also free, give a four years' course in which manual training in drawing, wood and iron work takes a prominent place. One of these, in the Rue de Jouy, is for girls, where they are trained for higher employments, as book-keepers and correspondents, and for taking charge of industrial establishments for women.

There were in 1887 no fewer than 66,000 schools in France, of which 57,611 were State-managed, secular, and free schools. 9,000 belonged to the Church.

There were many secondary schools—98 lycées and 256 colleges, some few years ago. But between these and the primary schools are the manual apprenticeship schools.

\* Report of United States Commissioner of Education, 1889, p. xxxii.

† Mr. Matthew Arnold's Report.

‡ See Report of Mr. Schoenhof to American Secretary of State, 1888.

§ "The Turgot," "Colbert," "Lavoisier," "J. B. Say," and "Arago," &c.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

The Polytechnic Association was founded in 1830 by the graduates of the Polytechnic School for the purpose of conducting preparatory courses of industrial and technical training for both sexes. Training is given in the cutting and fitting of garments, decorative painting, making of artificial flowers, and commercial courses to young girls. The Municipality of Paris has been to the forefront in supplying technical education for girls. It has undertaken to fit every girl for domestic or business life who applies at its schools, and without cost to the pupil. Its *écoles professionnelles ménagères* number six, besides its "commercial school." On these schools alone £30,000 is spent annually. The school, 14, Rue Bosquet, has 300 pupils. Girls must be 12 and not over 15 years of age, and must have a certificate from the primary school. The course is three years, but that of painting and drawing can be extended to four.

## EXPENDITURE ON DRAWING IN FRANCE.

Paris.....	£42,420 per annum.
National Budget for Art .....	45,240     ,,
Municipal contributions in Provinces....	47,395
	<hr/> £135,055

## SPECIAL SCHOOLS IN FRANCE.

- School of Telegraphy, for Government employés.
- Schools of Manual Apprenticeship. These supplement the primary school, and are for pupils born French or naturalised.
- Higher Schools of Commercial Studies. Foreigners admitted. Pupils prepared for merchants, bankers, administrators, &c.
- National School of the Industrial Arts at Roubaix, for practical and theoretical study of the local manufacture of cloth, which is highly valued. Foreigners are admitted by letter from their ambassador or consul. (*See plate II.*)
- The Ecole des Beaux-Arts at Paris is free. Annual Government grant, £14,320.
- The Académie de France at Rome, for successful artists. Government allows them £140 a year for four years at Rome, and sends them also.
- The Ecole des Beaux-Arts at Lyons is a national school, but chiefly supported from Lyons. It has a scholarship of £48 for three years, with £24 added by the town. It is relied on as a source of refinement rather than immediate profit.
- The Ecole Nationale des Arts Decoratifs at Paris has 800 pupils. State subsidy, £4,000 annually.
- National Professional School at Vierzon, opened by M. Jules Ferry.
- Ecole Professionnelle Municipale of Rheims, to instruct youth in manufactures and commerce. Four courses are given, according to the aptitudes of scholars after the second year: (1) manufactures, (2) mechanics, (3) commerce, (4) agriculture. The plant cost £20,000. The pupil is taught to weave and spin. He spins and weaves the wool which he has washed, carded, dyed, and prepared, with plant like that of the factory.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

The Polytechnic School at Paris fits for military, naval, and hydrographic engineers, and those of the military bridge corps, superintendents of State manufactories, telegraph lines, &c., and other careers demanding advanced mathematics, physics, and chemistry.

High School of Mines, Paris. Foreigners admitted, but receive no diplomas.

The National School of Design for Young Women, Paris.

The Limoges School of Decorative Art. 1,250 students in 1883.

Schools attached to the National Factories of Gobelins, Sèvres, and Beauvais.

School of Fine Arts at Toulouse. Painters' and sculptors' classes.

Meet 6 to 8 on winter evenings, and 6 to 8 on summer mornings

School of Master Workmen of Mines, Calais. Pupil must have worked 18 months in mines.

School of Horticulture at Versailles.

Central School of Arts and Manufactures in Paris.

Agricultural Schools. An Institute of Agronomy fits pupils to be teachers in the schools of agriculture, to be scientific proprietors and managers of farms, and experts in vine culture; 227,000 francs was voted to the Institute in 1885, 1,145,000 francs to the Veterinary School, 806,000 francs to the Agricultural Schools, 649,000 francs to the Practical Farm Schools, and 91,000 francs to the Horticultural Schools

There are also schools of arts and manufactures at Aix, Angers, and Chalons. Two schools of watch and clock making. Weaving schools also at Nimes, Amiens, and St. Etienne. Several lace-making schools. A free school of political science, with a remarkable and exhaustive programme of constitutional, legal, financial, and diplomatic studies.

*French Agriculture.*—Half of the inhabitants of France are in the agricultural class. There are 7,000,000 owners, farmers, and labourers, cultivating 125,000,000 acres. France is the greatest wheat-growing country in Europe. By elementary teaching, itinerant lectures, experimental plots and fields ("stations agronomiques"), farm schools, agricultural colleges, and the Institut National Agronomique at Paris, France is endeavouring to perfect existing modes of agricultural practice. In 1891-92 France spent £170,000 of imperial funds in this work, besides local expenditure. Butter and cheese making are receiving great attention. Voluntary agricultural schools are active, and there are 12 State schools, viz.: Agriculture, 3; horticulture, 1; dairying, 1; veterinary, 3; forestry, 2; and shepherds' schools and bergeries, 2.

## DENMARK AND SWEDEN.

THESE countries have distinguished themselves in dairy produce, and Sweden especially by the Sloyd system of woodwork in schools.

*Dairy Farming.*—From a special report of the Board of Agriculture for 1892, we learn how successful Denmark and Sweden have been in dairy production. Ten years ago Denmark sent us 304,722 cwt.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

of butter; last year she sent us 876,211 cwt. Sweden sent us only 67,821 cwt. at the former date, but we now import 234,987 cwt. This has come about from well-known causes. Government has helped the farmers to reach markets, for one thing. For another, the people have not clung to old methods when better ones have been brought to their knowledge. They have made butter in winter as well as summer, as the Holstein settlers who came to Denmark fifty years ago taught them to do. With the thermometer and scales soon came practical instruction in dairy management. Centrifugal separators have replaced the old processes of cream-raising, steam power being used in large workings. Souring is managed so that uniform quality results. Butter is not washed in the churn, lest the fine aroma should be lost; or if so washed, cooling and other precautions are taken. But most interesting of all has been the policy of

*Co-operation in Danish Dairying.*—Farmers have combined their knowledge and resources, and there are now one thousand co-operative dairies in the country. The New South Wales farmers have formed similar co-operative dairies, the shareholders being the farmers themselves. Danish dairying is carried on in the same way with success. Many dairies pay for milk by the "fat test." Since 1880 the middleman, or local butter dealer, has not been much heard of, and the producers sell to the export merchants. The latter move rapidly, shipping orders of butter on Friday morning in response to telegrams from England received on Thursday (the weekly market day). Consulting experts and advisers are at the call of the dairying companies for a small fee.

Sweden has long winters and little pasture, but the farmers have become first-rate dairymen. Co-operative dairying is here also in the ascendant, as against the "buying-up-dairy" system. Butter-making ceases in spring on account of low prices, and whole-milk cheese is turned out instead. Dairy farm stations are registered by the Royal Board of Agriculture, Sweden, and are aided from Government. They receive pupils for two years to be trained as "skilful dairymaids."

Germany largely uses the "Laval" separator for cream. The cream is allowed to "turn," and butter is not usually washed with water. The middleman is discouraged, such large holders as the "East Holstein Associated Dairies" employing their own agents rather than brokers. Germany has 1,020 co-operative dairies. The Government aid by subventions the education of dairymen and dairymaids. In the Kingdom of Saxony there are three dairy schools, and in the Grand Duchy of Oldenburg there is a dairy school and institute combined. Würtemberg has seven schools of domestic economy; Baden, two. There is a school of farmhouse

## TECHNICAL EDUCATION AT HOME AND ABROAD.

economy in the Grand Duchy of Hesse. But these do not include special dairy schools and exclusively private schools. The farmhouse schools (like that at Nebra, in Brandenburg) live a family life, teachers and scholars having every opportunity of putting into practice what is learnt. Not only is the handling of milk and the making of butter and cheese taught, but gardening, rearing of poultry, smoking and salting of meat, household book-keeping, and treatment of the sick.

*Slöjd*\* (*in Sweden*).—Sweden has solved better than other countries the problem of combining a varied manual training with ordinary school work. There are over 700 schools in Sweden in which *Slöjd* is taught. The normal school for this instruction is at Nääs, where a considerable number of teachers of the system are trained. The principles laid down are: (1) voluntary attendance at *Slöjd*; (2) *Slöjd* work must be useful; (3) not fatiguing in tool exercises; (4) varied; (5) such as can be done by pupils themselves; (6) real work, not play; (7) not articles of luxury; (8) the work becomes the property of the pupil; (9) the pupil must be able to do it; (10) done with exactness; (11) neat and clean; (12) thoughtful, not merely mechanical; (13) strengthening to the body; (14) develop sense of form; (15) rich in manipulative detail. Again, the teacher of it should be the ordinary teacher, and he should superintend the work but not handle it. It should begin at the eleventh year. *Slöjd* includes carpentry, turning, and wood-carving. *Slöjd* carpentry and trade carpentry differ. The former is small work; tools are different, and there is no division of labour. There are about one hundred models. The sheet-anchor, however, is the knife, which has a blade two-and-a-half inches long, strongly fixed in the handle and sharply pointed at the end. In addition, each worker has a square, a saw, an awl, perhaps a pair of dividers, and hammer and nails; benches of Swedish pattern, and sets of bits, chisels, gouges, and planes are used. The following articles are made:—

Pointer	Ruler	Footstool
Flower-stick	Knife handle	Corner bracket
Penholder	Pen tray	Nail box
Bird's perch	First spoon	Sugar scoop
Square flower-stick	Hammer handle	Boot-jack
Key label	Second spoon	Shoe-brush box
Slate pencil holder	Bracket	Stool
Dibbler	Stocking-stretcher	Knife box
Forked clothes-pins	Trencher	Salt box
Paper knife	Flower stand	Teapot stand
Flower cross	Butter beater	Match box.

\* *Slöjd* has the same meaning as "sleight" in England, viz., *dexterous feat* or *practice*, only it is used of *workmanship*.

## TECHNICAL EDUCATION AT HOME AND ABROAD.

## SWITZERLAND.

WE have already glanced at some of the forms of technical education in this remarkable country. Elementary and secondary education is free, and compulsory attendance is required up to fourteen years of age; 97·5 per cent of the children of all classes attend the public primary schools. The school on the 'Lindescher Platz, in Zurich, is an elementary school, but it cost £43,000, or £66 per head. Chemistry and physics are taught in the higher classes. There is a fine museum (as is usual in Zurich schools), which includes geographical relief maps of the Alps and their glaciers, botanical models, a complete herbarium, &c. There are in the canton of Zurich the gymnasium high schools, preparing scholars for the university or the polytechnic, and the trade school (industrieschule), which prepares for the polytechnic, or for direct entrance into trade. Pupils enter the gymnasium at twelve, and leave at eighteen or nineteen, and if they gain the leaving certificate they are admitted to any university or polytechnic without an entrance examination. The industrieschule is entered at fourteen, and has a three-and-a-half years' course. From the second class onwards the school separates into two divisions, (a) a technical section and (b) a commercial section. The girls' high schools are attended by young people between twelve and sixteen of all classes, no regard being had to social position. Except needlework and English, all the subjects are taught by male teachers. A study of the programmes of education in the Zurich Cantonal school would benefit those persons in England who still try to beggar education, to keep schools on a class footing and close their doors and windows to the free air of public management. The canton spends on education 32 per cent of its whole expenditure, besides the outlay of communes for the primary schools.

The supply of youths of superior and scientific education in Switzerland is greater than the demand, and many remain workmen or go to some other country. The head men of establishments have nearly all been through the polytechnic or a technical school. There is a great desire among the young men to travel to England and see the large undertakings of the North of England. The youths of Switzerland have advantages second to those of no country in the world. By means of the chemical knowledge imparted in the laboratories of the polytechnic, Switzerland has supplied men for works at home and abroad who, as the Royal Commissioners assert, have repaid ten times over in the dyeing industry alone the whole cost of the polytechnic. The colour manufactures of Switzerland are due to the polytechnic. Swiss coal tar manufactures were valued at £300,000 at that time, while those of France were only of the same

## TECHNICAL EDUCATION AT HOME AND ABROAD.

value, and those of England £500,000. Nearly all the raw and semi-raw materials for this manufacture had been imported, many of them from England. It has been shown that the laboratories of Switzerland have brought millions of capital into the country.

*Swiss Dairying, &c.*—Cheese and butter making are taught at a dairy station at Perolles (Fribourg), the dairy school de la Rutti (Berne), and at a dairy school at Sornthal (St. Gall). Here the centrifugal separators are driven by hydraulic power. There is a chemical laboratory, and an exhibition of dairy utensils on sale. Subjects of theoretical instruction are the shed, feeding, improvement of cattle, swine, cheese factories, milk, butter and cheese, management. Practice follows theory, and the use of the densometer, lactometer, lacto-fermentator, lacto-coagulator, &c., is taught.

## ITALY.

THIS country has no Factory Acts, or compulsory education. There are, however, good technical schools at Como and other places. The population in 1888 was 30,565,253. In 1886 the number of scholars enrolled in secondary schools was 184,096, of whom the scuole tecniche enrolled 27,131, and the istituti tecnici enrolled 7,381. The first prepare for industrial and commercial pursuits, and the second for the professions of civil engineering, surveying, &c. There are special schools for agriculture and mining, &c. The institute for the perfecting of higher studies in Florence, the normal school at Pisa, the scientific and literary academy and the higher technical school of Milan, and others, are of great value. But, speaking generally, Italy is educationally and industrially in the rear. Even in 1881 the illiterates of the population were returned as 62 per cent of the whole, and in 1889 as 48 per cent.

## RUSSIA AND FINLAND.

THERE is no national system of elementary education in Russia. "Serfdom" excluded the working classes from all such rights up to 1860. They were the creatures of the proprietors. But the Government, like the great Napoleon in his day, have made liberal provision for professional and official education. The sons of merchants have had chiefly to seek education in Finland, the Baltic Provinces, and Poland, which, though within the Russian Empire, retain in part their own social institutions. The population is chiefly rural and migratory, and though powers of local government exist, the people are too poor or apathetic to use them to educational effect. There are only about four hundred textile establishments in the country, and the mechanical arts are not cultivated with great success. But better times may

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be coming. A Labour Law has been passed forbidding employment under ten years, and limiting hours of work up to fourteen. The Government have also established two great imperial technical schools, which deserve to be considered as in the front rank of such institutions in Europe. (1) The Imperial Technical School of Moscow. This school seeks to train civil engineers, mechanical engineers, draughtsmen, foremen, and chemists. Teaching and practice are fully provided for in classrooms and workshops. Machines are constructed in the foundry, smithy, machine-tool and fitting department, and joiners' shop. Eight tons of metal a week can be turned out in castings. The course of study is six years, students entering at eighteen to twenty. There are about six hundred students, of whom one-half are boarders. The endowment of the school is £400,000, and the income about £34,000. The Technological Institute is another remarkable institution, with technical laboratories for the bleaching, dyeing, and printing of textile fabrics, for paper-making, and sugar-making. There are about one thousand students, and five elaborate courses are followed, as fully set out in Mr. W. Mather's sketch in Vol. III. of the Royal Commissioners' Report on Technical Education. About seventy to one hundred students graduate each year. The Handicraft and Industrial School is also a large one, and cost £45,000. It trains boys of poor parents, but others are admitted on payment. In 1885 the population of Russia exceeded 100,000,000, but the percentage at school was only 1.24. In Finland, however, a very different state of things prevails. Uno Cygnæus was the organiser of the Finnish school system, and he made manual training an integral part of the elementary school. He was sent out to Alaska to teach the natives, and it was there his plan was formed. Afterwards appointed Inspector General of the people's schools of Finland, he established a remarkable system of combined literary, scientific, and industrial education. The enrolment of scholars has now advanced to 17 per cent in a population of 2,225,000. The illiterates are less than 5,000 in that number. One-seventh of the scholars are in secondary schools, one-half of the number being girls. Over 150,000 scholars were in ambulatory schools. The Agricultural Institute has fifteen agricultural schools under it, and a strong staff of specialists. It aids agriculture, encourages the use of agricultural machines and the cultivation of foreign plants, and devises plans for the reclamation of waste lands. Its staff includes one agricultural engineer, one government agronomist, eight provincial agronomists, ten assistant agronomists, eleven women dairy teachers, four other teachers of dairy farming, six teachers of horticulture, three instructors in ploughing, one expert in flax culture, two masters of forestry, one teacher of



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arboriculture, two controllers of grain and seed, &c. The Polytekuiska Institutet also prepares students to become architects, builders, mechanical engineers, or "kemisk teknolog," *i.e.*, experts in the chemistry of building materials. It has thirty-one professors. Besides these there are seven navigation schools, thirty-one Sunday schools for apprentices, sixteen dairy schools, twelve trade schools, and commercial schools with a splendid course, including Swedish, Finnish, German, and English languages (Russian and French optional), book-keeping, correspondence, mathematics, physics and chemistry, national economy, penmanship, and gymnastics.

## CONCLUSION.

THE view with which this article has been written could not be more nobly stated than in a remarkable address delivered by M. Jules Ferry, a man to whom France owes so much of her present admirable system of education, at the laying of the corner-stone of the National School of Primary and Professional Instruction, at Vierzon, in 1883.

## M. JULES FERRY ON TECHNICAL EDUCATION.

Engineers, managers of works, designers, superintendents; these are the *cadres* of French labour and industry. It is not with these that we here preoccupy ourselves; it is with the great working mass itself. . . Ah! gentlemen, I know the old doctrine—the aristocratic doctrine—which said: It is imprudent to give education to the people. It is imprudent to teach the workman anything beyond what is necessary for his daily task. He will take a dislike to his trade if he once looks beyond its lowly horizon. That, gentlemen, is an aristocratic conception, and a false conception. The democratic conception, which is ours, is precisely antipodal. We judge, in fact, that the more the workman shall be familiarised with the natural laws, of which he is too often the ignorant auxiliary, the better he will understand his daily labour, the more he will honour and love his trade. There is a fine saying of Channing, one of the men who have best loved the people and best known modern democracy. Channing has made the remark that industrial labour—the labour of the shops—sets in operation incessantly all the discoveries of science and all scientific notions, the oldest as well as the newest, and he recommends statesmen to spread abroad in the shops these scientific knowledges, these positive conquests of humanity; for, says he, 'there is no more certain means of ennobling a manual profession than by showing the intimate relation which connects it with the natural laws of the world.' To ennoble manual labour, gentlemen, is our wish also. . . And in order that

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the nobility of manual labour may be recognised, the surest and only practical means have been taken—manual labour has been placed in the school itself. Be well assured that when the plane and the file shall have taken the same place—a place of honour—by the side of the compass, the chart, and the book of history, and shall be the object of an intelligent and systematic instruction, many prejudices will disappear; many antagonisms will vanish; social peace will begin on the benches of the primary school, and concord, with its radiant light, will illuminate the future of French society.

This noble language is fortunately not the vapouring of a theorist. It indicates a policy which the speaker did much, and his countrymen are doing more, to make a practical success in France. Nine-tenths of the people of the nations are at work, and can only live by work. It is manifest, therefore, that public education should have some reference to work, should fit men for it, teach them to love it, and help the nation to win the desired reward. No evil could be greater than for children to begin life with a dread of work and a desire to substitute for it social accomplishments and idle pleasures.

The technical education of the world cannot be exhaustively surveyed in these pages. Enough, however, has been said to show that the movement in favour of adapted and specialised instruction is now in full course in almost every civilised nation. The old delusion that education and work are antithetical, that educated persons do not work, and that persons who work ought not to be educated, has been smitten, and is dying, with few to mourn over it. We cannot afford to have in our midst either the refined idler or the ignorant workman. Work is duty, not servitude, and enlightenment is the rightful inheritance of every child born into the world.

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## CO-OPERATIVE SOCIETIES IN THE UNITED KINGDOM.

STATISTICS SHOWING THE POSITION AND PROGRESS OF THE  
CO-OPERATIVE MOVEMENT FROM 1862 TO 1891.

**W**E again place before our readers a synopsis of the Trade of Co-operative Societies in the United Kingdom. The tables have been brought up to date on the basis of the Annual Returns by Societies to the Registrar of Friendly Societies, and corrected by the more recent returns to the Co-operative Union.

The tables refer to the United Kingdom, England and Wales, Scotland, and Ireland, and give the comparison between the figures of 1891, and those of ten years ago. We have also inserted below the figures relating to profits devoted to Education.

## CO-OPERATION IN THE UNITED KINGDOM DURING 1881 AND 1891.

	1881.	1891.	INCREASE PER CENT.
Societies (making returns)..No.	1,240	1,684	35
Members .....No.	643,617	1,207,511	87
Capital (share and loan) ....£	8,423,756	17,241,099	104
Sales .....£	24,945,063	49,024,171	96
Profits .....£	1,981,109	4,718,532	138
Profits devoted to Education..£	13,825	30,087	117

## CO-OPERATION IN ENGLAND AND WALES DURING 1881 AND 1891.

	1881.	1891.	INCREASE PER CENT.
Societies (making returns)..No.	971	1,313	35
Members .....No.	552,353	1,008,448	82
Capital (share and loan) ....£	7,636,698	14,514,113	90
Sales .....£	21,276,850	39,617,376	86
Profits .....£	1,657,564	3,781,254	128
Profits devoted to Education..£	13,314	27,196	104

## CO-OPERATION IN SCOTLAND DURING 1881 AND 1891.

	1881.	1891.	INCREASE PER CENT.
Societies (making returns)..No.	259	343	32
Members .....No.	90,430	196,796	117
Capital (share and loan) ....£	784,169	2,708,121	245
Sales .....£	3,649,155	9,304,321	154
Profits .....£	322,012	933,044	189
Profits devoted to Education..£	508	2,891	469

## CO-OPERATION IN IRELAND DURING 1881 AND 1891.

	1881.	1891.	
Societies .....No.	10	.....	28
Members.....No.	834	.....	2,267
Capital (share and loan).....£	2,889	.....	18,865
Sales .....£	19,058	.....	102,474
Profits .....£	1,533	.....	4,234

CO-OPERATIVE SOCIETIES,  
TABLE (1).—GENERAL SUMMARY of RETURNS  
(Compiled from Official

YEAR.	NO. OF SOCIETIES			CAPITAL AT END OF YEAR.			Sales.	Net Profit.
	Registered in the Year.	Not Making Returns.	Making Returns.	Number of Members.	Share.	Loan.		
					£	£	£	£
1862	a454	g68	332	90,341	428,376	54,499	2,333,523	165,562
1863	51	73	381	111,163	579,902	76,733	2,673,778	216,005
1864	146	110	394	b129,429	684,182	89,122	2,836,606	224,460
1865	101	182	403	b124,659	819,367	107,263	3,373,847	279,226
1866	163	240	441	b144,072	1,046,310	118,023	4,462,676	372,307
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,578
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,420
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,101
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,435
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,399
1872	141	113	935	330,550	2,969,573	371,541	13,012,120	936,715
1873	226	138	983	387,765	3,581,405	496,830	15,639,714	1,110,658
1874	130	232	1,031	412,733	3,905,093	587,342	16,374,053	1,228,038
1875	117	285	1,170	480,076	4,403,547	849,990	18,499,901	1,429,090
1876	82	177	1,167	508,067	5,141,390	919,772	19,921,054	1,743,980
1877	67	246	1,148	529,081	5,445,449	1,073,275	21,390,447	1,924,551
1878	52	121	1,185	560,993	5,647,443	1,145,717	21,402,219	1,837,660
1879	52	146	1,151	572,621	5,755,522	1,496,343	20,382,772	1,857,790
1880	69	100	1,183	604,063	6,232,093	1,341,290	23,248,314	c1,868,599
1881	66	..	1,240	643,617	6,940,173	1,483,583	24,945,063	1,981,109
1882	67	115	1,288	687,158	7,591,241	1,622,431	27,541,212	2,155,398
1883	55	170	1,291	729,957	7,921,356	1,577,086	29,336,028	2,434,996
1884	78	63	1,400	797,950	8,646,188	1,830,836	30,424,101	2,723,794
1885	84	50	1,441	850,659	9,211,259	1,945,834	31,305,910	2,988,690
1886	83	65	1,486	894,488	9,747,452	2,160,090	32,730,745	3,070,111
1887	87	145	1,516	967,828	10,344,216	2,253,576	34,483,771	3,190,309
1888	100	140	1,592	1,011,258	10,946,219	2,452,887	37,793,908	3,454,974
1889	193	123	1,621	1,071,089	11,687,912	2,923,711	40,674,673	3,734,546
1890	122	159	1,647	1,140,573	12,783,629	3,169,155	43,731,669	4,275,617
1891	117	122	1,684	1,207,511	13,847,705	3,393,394	49,024,171	4,718,532
Totals . .							£605,684,602	£52,403,650

a The Total Number Registered to the end of 1862. b Reduced by 18,278 for 1864, by the Wholesale Society, and which were included in the returns from the Retail Board for 1881. d Includes Joint-stock Companies. e The return states this sum to be Corn Mills, Joint-stock Companies, Building Departments, Banks, Mortgages, Loans, &c.

## UNITED KINGDOM.

for each Year, from 1862 to 1891 inclusive.

(Sources, and Corrected.)

Trade Expenses.	Trade Stock.	CAPITAL INVESTED IN		Profit Devoted to Education.	Amount of Reserve Fund.	YEAR.
		Industrial and Provdt. Societies, and other than Trade.	Joint-stock Companies.			
£	£	£	£	£	£	
127,749	....	....	....	....	....	1862
167,620	....	....	....	....	....	1863
163,147	....	....	....	....	....	1864
181,766	....	....	....	....	....	1865
219,746	....	....	....	....	....	1866
255,923	583,539	d494,429	....	3,203	32,629	1867
294,451	671,165	137,397	166,398	3,636	33,109	1868
280,116	784,847	117,586	178,367	3,814	38,630	1869
311,910	912,102	126,736	204,876	4,275	52,990	1870
346,415	1,029,446	145,004	262,594	5,097	66,631	1871
479,130	1,383,063	318,477	382,846	6,696	93,601	1872
556,540	1,627,402	370,402	449,039	7,107	102,722	1873
594,455	1,781,053	418,301	522,081	7,949	116,829	1874
686,178	2,095,675	667,825	553,454	10,879	241,930	1875
1,279,856	2,664,042	....	....	....	....	1876
1,381,961	2,648,282	....	....	....	....	1877
1,494,607	2,609,729	....	....	....	....	1878
1,537,138	2,857,214	....	....	....	....	1879
1,429,160	2,880,076	e3,447,347	....	13,910	....	1880
....	3,053,333	....	....	13,825	....	1881
1,690,107	3,452,942	e4,281,264	....	14,778	....	1882
1,826,804	3,709,555	e4,497,718	....	16,788	....	1883
1,936,485	3,575,836	e4,550,890	....	19,154	....	1884
2,082,539	3,729,492	e5,433,120	....	20,712	....	1885
1,800,347	4,072,765	e3,858,940	....	19,878	....	1886
1,960,374	4,360,836	e4,491,483	....	21,380	....	1887
2,045,391	4,556,593	e5,233,859	....	24,245	....	1888
2,182,775	4,795,132	e5,833,278	....	25,455	....	1889
2,361,319	5,141,750	e6,958,787	....	27,587	....	1890
2,621,091	5,838,370	e6,394,867	....	30,087	....	1891

23,927 for 1865, and 30,921 for 1866, being the number of "Individual Members" returned Societies. c Estimated on the basis of the returns made to the Central Co-operative "Investments other than in Trade," which may mean investments in the Wholesale, g Estimated.

CO-OPERATIVE SOCIETIES,  
TABLE (2).—GENERAL SUMMARY of RETURNS

(Compiled from Official

YEAR.	NO. OF SOCIETIES			Number of Members.	CAPITAL AT END OF YEAR.		Sales.	Net Profit.
	Registered in the Year.	Not Making Returns.	Making Returns.		Share.	Loan.		
					£	£	£	£
1862	a454	g68	332	90,341	428,376	54,499	2,333,523	165,562
1863	51	73	381	111,163	579,902	76,738	2,673,778	216,005
1864	146	110	394	b129,429	684,182	89,122	2,836,606	224,460
1865	101	182	403	b124,659	819,367	107,263	3,373,847	279,226
1866	163	240	441	b144,072	1,046,310	118,023	4,462,676	372,307
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,578
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,420
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,101
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,435
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,399
1872	138	104	927	339,986	2,968,758	371,531	12,992,345	935,551
1873	225	135	978	387,301	3,579,962	496,740	15,623,553	1,109,795
1874	128	227	1,026	412,252	3,903,608	586,972	16,358,278	1,227,226
1875	116	233	1,163	479,284	4,793,909	844,620	18,484,382	1,427,365
1876	82	170	1,165	507,857	5,140,219	919,762	19,909,699	1,742,501
1877	66	240	1,144	528,576	5,437,959	1,073,265	21,374,013	1,922,361
1878	52	119	1,181	560,703	5,645,883	1,145,707	21,385,646	1,836,371
1879	51	146	1,145	573,084	5,747,907	1,496,143	20,365,602	1,856,308
1880	67	100	1,177	603,541	6,224,271	1,341,190	23,231,677	c1,866,839
1881	62	..	1,230	642,783	6,937,284	1,483,583	24,926,005	1,979,576
1882	66	113	1,276	685,981	7,581,739	1,622,253	27,509,055	2,153,699
1883	55	165	1,282	728,905	7,912,216	1,576,845	29,303,441	2,432,621
1884	76	57	1,391	896,845	8,636,960	1,830,624	30,392,112	2,722,103
1885	84	47	1,431	849,616	9,202,138	1,945,508	31,273,156	2,986,155
1886	82	62	1,474	893,153	9,738,278	2,159,746	32,684,244	3,067,436
1887	84	140	1,504	966,403	10,333,069	2,252,672	34,437,879	3,187,902
1888	100	130	1,579	1,009,773	10,935,031	2,452,158	37,742,429	3,451,577
1889	89	118	1,608	1,069,396	11,677,286	2,923,506	40,618,060	3,731,966
1890	110	151	1,631	1,138,780	12,776,733	3,163,788	43,667,363	4,273,010
1891	95	108	1,656	1,205,244	13,832,158	3,390,076	48,921,697	4,714,298
Totals ..							£605,023,398	£52,363,153

a The Total Number Registered to the end of 1862. b Reduced by 18,278 for 1864, by the Wholesale Society, and which were included in the returns from the Retail Board for 1881. d Includes Joint-stock Companies. e The return states this sum to be Corn Mills, Joint-stock Companies, Building Departments, Banks, Mortgages, Loans, &c.

## GREAT BRITAIN.

for each Year, from 1862 to 1891 inclusive.

Sources, and Corrected.)

Trade Expenses.	Trade Stock.	CAPITAL INVESTED IN		Profit Devoted to Education.	Amount of Reserve Fund.	YEAR.
		Industrial and Provident Societies, and other than Trade.	Joint-stock Companies.			
£	£	£	£	£	£	
127,749	....	....	....	....	....	1862
167,620	....	....	....	....	....	1863
163,147	....	....	....	....	....	1864
181,766	....	....	....	....	....	1865
219,746	....	....	....	....	....	1866
255,923	583,539	d494,429	....	3,203	32,629	1867
294,451	671,165	137,397	166,398	3,636	33,109	1868
280,116	784,847	117,586	178,367	3,814	38,630	1869
311,910	912,102	126,736	204,876	4,275	52,990	1870
346,415	1,029,446	145,004	262,594	5,097	66,631	1871
477,846	1,383,063	318,477	382,846	6,696	93,601	1872
555,766	1,627,402	370,402	449,039	7,107	102,722	1873
593,548	1,781,053	418,301	522,081	7,949	116,829	1874
685,118	2,094,325	667,825	553,454	10,879	241,930	1875
1,279,392	2,664,042	....	....	....	....	1876
1,381,285	2,647,309	....	....	....	....	1877
1,493,842	2,609,729	....	....	....	....	1878
1,536,282	2,857,214	....	....	....	....	1879
1,428,303	2,878,832	e3,429,935	17,407	13,910	....	1880
....	3,051,665	....	....	13,822	....	1881
1,689,823	3,450,481	e4,281,243	....	14,778	....	1882
1,818,880	3,706,978	e4,490,477	....	16,788	....	1883
1,933,297	3,572,226	e4,543,388	....	19,154	....	1884
2,080,427	3,726,756	e5,425,319	....	20,712	....	1885
1,797,696	4,068,831	e3,858,451	....	19,878	....	1886
1,957,873	4,354,857	e4,490,674	....	21,380	....	1887
2,041,566	4,550,743	e5,233,349	....	24,238	....	1888
2,178,961	4,789,170	e5,832,435	....	25,455	....	1889
2,357,647	5,136,580	e6,958,131	....	27,537	....	1890
2,617,200	5,832,573	e6,390,827	....	30,087	....	1891

23,927 for 1865, and 30,921 for 1866, being the number of "Individual Members" returned Societies. c Estimated on the basis of the returns made to the Central Co-operative "Investments other than in Trade," which may mean investments in the Wholesale, g Estimated.

## CO-OPERATIVE SOCIETIES,

TABLE (3).—GENERAL SUMMARY of RETURNS

(Compiled from Official

YEAR.	NO. OF SOCIETIES			Number of Members.	CAPITAL AT END OF YEAR.		Sales.	Net Profit.
	Registered in the Year.	Not Making Returns.	Making Returns.		Share.	Loan.		
					£	£	£	£
1862	454	68	332	90,841	428,376	54,499	2,333,523	165,562
1863	51	73	381	111,163	579,902	76,738	2,673,778	216,005
1864	146	110	394	129,429	684,182	89,122	2,836,606	224,460
1865	101	182	403	124,659	819,367	107,263	3,373,847	279,226
1866	163	240	441	144,072	1,046,310	118,023	4,462,676	372,307
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,578
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,420
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,101
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,435
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,399
1872	113	66	749	301,157	2,786,965	344,509	11,397,225	809,237
1873	186	69	790	340,930	3,344,104	431,808	13,651,127	959,493
1874	113	177	810	357,821	3,653,582	498,052	14,295,762	1,072,139
1875	98	237	926	420,024	4,470,857	742,073	16,206,570	1,250,570
1876	72	113	937	444,547	4,825,642	774,809	17,619,247	1,541,384
1877	58	186	896	461,666	5,092,958	916,955	18,697,788	1,680,370
1878	48	65	963	490,584	5,264,855	965,499	18,719,081	1,583,925
1879	40	106	937	504,117	5,374,179	1,324,970	17,816,037	1,598,156
1880	53	62	953	526,686	5,806,545	1,124,795	20,129,217	1,600,000
1881	50	..	971	552,353	6,431,553	1,205,145	21,276,850	1,657,564
1882	51	82	1,012	593,262	7,058,025	1,293,595	23,607,809	1,814,375
1883	42	158	990	622,871	7,281,448	1,203,764	24,776,980	2,036,826
1884	64	48	1,079	672,780	7,879,686	1,359,007	25,600,250	2,237,210
1885	73	47	1,114	717,019	8,364,367	1,408,941	25,858,065	2,419,615
1886	67	61	1,141	751,117	8,793,068	1,551,989	26,747,174	2,476,651
1887	73	139	1,170	813,537	9,269,422	1,598,420	28,221,988	2,542,884
1888	94	125	1,244	850,020	9,793,852	1,743,890	30,350,048	2,766,131
1889	81	112	1,268	897,841	10,424,169	2,098,100	33,016,341	2,981,543
1890	103	149	1,290	955,393	11,380,210	2,196,364	35,367,102	3,393,991
1891	88	108	1,313	1,008,448	12,253,427	2,260,686	39,617,376	3,781,254
						Totals ..	£516,794,799	£43,941,811



## ENGLAND AND WALES.

*for each Year, from 1862 to 1891 inclusive.*

Sources, and Corrected.)

Trade Expenses.	Trade Stock.	CAPITAL INVESTED IN		Profit Devoted to Education.	Amount of Reserve Fund.	YEAR.
		Industrial and Provdt. Societies, and other than Trade.	Joint-stock Companies.			
£	£	£	£	£	£	
127,749	....	....	....	....	....	1862
167,620	....	....	....	....	....	1863
163,147	....	....	....	....	....	1864
181,766	....	....	....	....	....	1865
219,746	....	....	....	....	....	1866
255,923	583,539	494,429	....	3,203	32,629	1867
294,451	671,165	137,397	166,398	3,636	33,109	1868
280,116	784,847	117,586	178,367	3,814	38,630	1869
419,910	912,102	126,736	204,876	4,275	52,990	1870
346,415	1,029,446	145,004	262,594	5,097	66,631	1871
419,567	1,219,092	300,712	380,043	6,461	79,292	1872
488,464	1,439,137	337,811	443,724	6,864	83,149	1873
517,445	1,572,264	386,640	510,057	7,486	98,732	1874
598,080	1,852,437	636,400	538,140	10,454	220,011	1875
1,137,053	2,377,380	....	....	....	....	1876
1,222,664	2,310,041	....	....	....	....	1877
1,315,364	2,286,795	....	....	....	....	1878
1,353,832	2,486,704	....	....	....	....	1879
1,285,875	2,512,039	†3,226,370	....	13,262	....	1880
....	2,585,443	....	....	13,314	....	1881
1,499,633	2,969,957	†3,919,455	....	14,070	....	1882
1,606,424	3,160,569	†4,113,995	....	15,903	....	1883
1,684,070	2,932,817	†4,118,751	....	18,062	....	1884
1,825,717	3,044,534	†4,811,819	....	19,374	....	1885
1,525,194	3,323,450	†3,475,319	....	18,440	....	1886
1,670,290	3,512,626	†4,112,807	....	19,707	....	1887
1,743,838	3,687,394	†4,868,141	....	22,391	....	1888
1,849,811	3,856,498	†5,386,444	....	23,388	....	1889
1,996,438	4,121,400	†6,407,701	....	24,919	....	1890
2,207,143	4,691,801	†5,749,811	....	27,196	....	1891

† "Investments at end of year"—the class not stated.

## CO-OPERATIVE

TABLE (4).—GENERAL SUMMARY of RETURNS

(Compiled from Official

YEAR.	NUMBER OF SOCIETIES			Number of Members.	CAPITAL AT END OF YEAR.	
	Registered.	Not Making Returns.	Making Returns.		Share.	Loan.
					£	£
1872 .....	25	38	178	38,829	181,793	27,022
1873 .....	39	66	188	46,371	235,858	64,932
1874 .....	15	50	216	54,431	250,026	88,920
1875 .....	18	46	237	59,260	323,052	102,547
1876 .....	10	57	228	63,310	314,577	144,953
1877 .....	8	54	248	66,910	345,001	156,310
1878 .....	4	54	218	70,119	381,028	180,208
1879 .....	11	*40	208	68,967	373,728	171,173
1880 .....	14	38	224	76,855	417,726	216,395
1881 .....	12	9	259	90,430	505,731	278,438
1882 .....	15	31	264	92,719	523,714	328,658
1883 .....	13	7	292	106,034	630,768	373,081
1884 .....	12	9	312	124,065	757,274	471,617
1885 .....	11	..	317	132,597	837,771	536,567
1886 .....	15	1	333	142,036	945,210	607,757
1887 .....	11	1	334	152,866	1,063,647	654,252
1888 .....	5	5	335	159,753	1,141,179	708,268
1889 .....	8	6	340	171,555	1,253,117	825,406
1890 .....	7	2	341	183,387	1,396,523	972,424
1891 .....	7	..	343	196,796	1,578,731	1,129,390
						Totals ...£

\* Not stated, but estimated at about 40.

## SOCIETIES, SCOTLAND.

*for each Year, from 1872 to 1891 inclusive.*

Sources, and Corrected.)

Sales.	Net Profit.	Trade Expenses.	Trade Stock.	CAPITAL INVESTED IN		Profit Devoted to Education.	Amount of Reserve Fund.	YEAR.
				Industrial and Provident Societies, and other than Trade.	Joint-stock Companies.			
£	£	£	£	£	£	£	£	
1,595,120	126,314	58 279	163,971	17,765	2,803	235	14,309	..1872
1,972,426	150,302	67,302	188,265	32,591	5,315	243	19,573	..1873
2,062,516	155,087	76,103	208,789	31,661	12,024	463	18,097	..1874
2,277,812	176,795	87,038	241,888	31,425	15,314	425	21,919	..1875
2,290,452	201,117	142 339	236,662	..	..	..	..	..1876
2,676,225	241,991	158,621	337,268	..	..	..	..	..1877
2,666,565	252,446	178,478	322,934	..	..	..	..	..1878
2,549,565	258,152	182,450	370,510	..	..	..	..	..1879
3,102,460	266,839	142,423	366,793	203,565	17,407	648	..	..1880
3,649,155	322,012	..	466,222	..	..	508	..	..1881
3,901,246	339,324	190,190	480,524	†361,788	..	708	..	..1882
4,526,461	395,795	212,456	546,409	†376,482	..	885	..	..1883
4,791,862	484,893	249,227	639,409	†424,637	..	1,092	..	..1884
5,415,091	566,540	254,710	682,222	†613 500	..	1,338	..	..1885
5,937,070	590,785	272,502	745,381	†383,132	..	1,438	..	..1886
6,215,891	645,018	287,583	842,231	†377,867	..	1,673	..	..1887
7,392,381	685,446	297,723	863,349	†365,208	..	1,847	..	..1888
7,601,719	750,423	329,150	932,672	†445,991	..	2,067	..	..1889
8,300,261	879,019	361,209	1,015,180	†550,430	..	2,668	..	..1890
9,304,321	933,044	410,057	1,140,772	†641,016	..	2,891	..	..1891
88,228,599	8,421,342							

† "Investments at end of year;" the class of investment is not stated.

# CO-OPERATIVE SOCIETIES, IRELAND.

TABLE (5).—GENERAL SUMMARY OF RETURNS for each Year, from 1872 to 1891 inclusive.

(Compiled from Official Sources, and Corrected.)

Year.	NUMBER OF SOCIETIES			CAPITAL AT END OF YEAR.		Sales.	Net Profit.	Trade Expenses.	Trade Stock.	CAPITAL INVESTED IN		Profit Devoted to Education.	Amount of Reserve Fund.
	Registered.	Not Making Returns.	Making Returns.	Share.	Loan.					Industrial and Prov. Societies.	Joint-stock Companies.		
1872	3	9	8	£ 1,815	£ 10	19,775	£ 1,164	£ 1,284	£ ..	£ ..	£ ..	£ ..	£ ..
1873	1	3	5	1,443	90	16,161	863	774	..	..	..	..	..
1874	2	5	5	1,485	370	15,775	812	907	..	..	..	..	..
1875	1	2	7	9,638	5,370	15,519	1,725	1,060	1,350	..	..	..	67
1876	..	7	2	1,171	10	11,355	1,479	464	..	..	..	..	..
1877	..	6	4	7,490	10	16,434	2,190	676	973	..	..	..	..
1878	..	2	4	1,560	10	16,573	1,289	765	..	..	..	..	15
1879	..	..	6	7,615	200	17,170	1,482	856	..	5	..	45	71
1880	2	..	6	7,822	100	16,637	1,760	857	1,244	..	..	..	..
1881	4	..	10	2,889	..	19,058	1,533	1,039	1,668	8	..	3	..
1882	1	2	12	9,502	178	32,157	1,639	2,284	2,461	121	..	..	..
1883	..	5	9	9,140	241	32,587	2,375	1,924	2,577	17,241	..	..	..
1884	2	6	9	9,228	212	31,989	1,691	3,188	3,610	17,502	..	..	..
1885	..	3	10	9,121	326	32,754	2,535	2,112	2,736	17,801	..	..	..
1886	1	3	12	9,174	344	46,501	2,675	2,551	3,934	..	..	..	..
1887	3	5	12	11,147	904	45,892	2,407	2,501	5,979	1809	..	..	..
1888	1	10	13	11,188	729	51,474	3,397	3,825	5,850	1510	..	7	..
1889	4	5	13	10,626	205	56,613	2,580	3,814	5,962	1510	..	..	..
1890	12	8	16	6,896	367	64,306	2,607	3,672	5,170	1656	..	..	..
1891	22	14	28	15,547	3,318	102,474	4,234	3,891	5,797	14,040	..	..	..
				Totals ...£		661,204	40,497						

+ "Investments at end of year;" the class not stated.

## CO-OPERATIVE SOCIETIES IN ENGLAND AND WALES WITH AN ANNUAL TRADE OF OVER £200,000.

*(See Table 6, pages 510-11.)*

THE number of societies under this head is thirty, of which thirteen are in Lancashire, nine in Yorkshire, four in Durham, and one each in Cheshire, Derbyshire, Devonshire, and Northumberland.

The combined sales of these thirty societies amount to £18,509,139, being 46 per cent of the entire sales of societies in England and Wales. The Wholesale Society comes first with a business of £9,300,904, followed by Leeds Society and Corn Mill, with sales amounting to £861,959; next come Sowerby Bridge Corn Mill, Barnsley British, Bolton, Newcastle-on-Tyne, Oldham Industrial, Gateshead, Bishop Auckland, Rochdale Pioneers, and Huddersfield Societies, all of whose sales considerably exceed £300,000. The sales of the remaining nineteen societies are under that sum.

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## CO-OPERATIVE SOCIETIES IN ENGLAND AND WALES WITH AN ANNUAL TRADE OF BETWEEN £100,000 AND £200,000.

*(See Table 7, pages 512-13.)*

THREE fresh societies make their appearance in table 7 this year, viz., Nelson, with a trade of £104,776; Brightside and Carbrook, £100,873; and Doncaster, £103,464.

Of the thirty-six societies coming under this head for 1892, Lancashire furnishes ten, Yorkshire ten, Durham five, Cumberland two, and Cheshire, Leicestershire, Derbyshire, Lincolnshire, Essex, Gloucestershire, Glamorgan shire, Kent, and Northumberland one each. Their total sales are £4,808,983, or nearly 13 per cent of the total sales of societies in England and Wales.

## CO-OPERATIVE SOCIETIES,

BIRD'S-EYE VIEW

TABLE (6), showing the Sales of all Societies which,

NAMES OF SOCIETIES.		COUNTIES.	1873	1874	1875
			£	£	£
1	Rochdale Equitable Pioneers..	Lancashire..	287,212	298,889	305,657
2	Rochdale Co-op. Corn Mill....	Lancashire..	240,836	244,864	202,988
3	Co-operative Wholesale Society	Lancashire..	1,636,950	1,964,829	2,247,395
4	Sowerby Bridge Corn Mill....	Yorkshire..	286,964	338,246	338,364
5	Halifax Industrial .....	Yorkshire..	264,137	273,186	270,499
6	Leeds Industrial and Corn Mill	Yorkshire..	312,308	386,536	390,645
7	Oldham Industrial .....	Lancashire..	213,600	237,845	253,438
8	Bury District .....	Lancashire..	209,382	223,622	212,814
9	Rochdale Cotton Manufact'ring	Lancashire..	....	209,654	....
10	Halifax Corn Mill.....	Yorkshire..	....	....	....
11	Oldham Star Corn Mill .....	Lancashire..	....	....	....
12	Manchester Equitable.....	Lancashire..	....	....	....
13	Bolton.....	Lancashire..	....	....	....
14	Gateshead .....	Durham ..	....	....	....
15	Barnsley British .....	Yorkshire..	....	....	....
16	Oldham Equitable .....	Lancashire..	....	....	....
17	Huddersfield .....	Yorkshire..	....	....	....
TOTALS .....			3,451,389	4,177,671	4,221,800

NAMES OF SOCIETIES.		COUNTIES.	1883	1884	1885
			£	£	£
1	Rochdale Equitable Pioneers..	Lancashire..	276,457	262,270	252,072
2	Rochdale Co-op. Corn Mill....	Lancashire..	259,396	209,912	....
3	Co-operative Wholesale Society	Lancashire..	4,546,891	4,675,371	4,793,151
4	Sowerby Bridge Corn Mill....	Yorkshire..	499,260	395,502	343,723
5	Halifax Industrial .....	Yorkshire..	206,058	224,780	226,175
6	Leeds Industrial and Corn Mill	Yorkshire..	486,784	490,332	495,297
7	Oldham Industrial .....	Lancashire..	335,672	344,647	330,038
8	Bury District.....	Lancashire..	250,123	249,978	256,545
9	Rochdale Cotton Manufact'ring	Lancashire..	....	....	....
10	Halifax Corn Mill .....	Yorkshire..	....	240,363	203,877
11	Oldham Star Corn Mill .....	Lancashire..	....	....	....
12	Manchester Equitable.....	Lancashire..	258,935	240,241	232,998
13	Bolton.....	Lancashire..	295,437	326,201	324,467
14	Gateshead .....	Durham ..	248,364	248,295	268,720
15	Barnsley British .....	Yorkshire..	253,512	266,616	260,112
16	Oldham Equitable .....	Lancashire..	235,678	239,364	227,873
17	Huddersfield .....	Yorkshire..	208,710	....	....
18	Newcastle-upon-Tyne .....	Nrthmbrlnd	239,877	286,686	312,719
19	Accrington and Church .....	Lancashire..	....	200,608	208,307
20	Bishop Auckland .....	Durham ..	....	....	....
21	Brighouse .....	Yorkshire..	....	....	....
22	Bradford .....	Yorkshire..	....	....	....
23	Pendleton .....	Lancashire..	....	....	....
24	Burnley .....	Lancashire..	....	....	....
25	Crook .....	Durham ..	....	....	....
26	Plymouth .....	Devonshire..	....	....	....
27	Derby .....	Derbyshire..	....	....	....
28	Chester-le-Street .....	Durham ..	....	....	....
29	Dewsbury .....	Yorkshire..	....	....	....
30	Crewe Friendly.....	Cheshire ..	....	....	....
31	Leigh .....	Lancashire..	....	....	....
TOTALS .....			8,601,154	8,901,166	8,736,074

## ENGLAND AND WALES.

OF SALES.

*during the years 1873 to 1892, exceeded £200,000 a year.*

1876	1877	1878	1879	1880	1881	1882	
£	£	£	£	£	£	£	
305,191	311,715	299,039	270,070	283,655	272,141	274,627	1
....	252,045	285,920	270,337	301,836	299,672	286,966	2
2,697,366	2,827,052	2,705,625	2,645,331	3,339,681	3,574,095	4,038,238	3
406,017	460,013	468,001	447,301	565,194	589,929	594,664	4
237,754	237,447	209,571	....	207,539	....	....	5
365,639	374,166	358,865	360,017	412,225	432,811	438,478	6
284,977	316,903	279,999	261,813	303,012	310,387	320,336	7
231,692	251,057	241,886	217,282	231,918	225,689	240,227	8
....	....	....	....	....	....	....	9
207,648	244,262	224,018	....	....	....	....	10
....	219,664	....	....	....	....	....	11
....	....	....	208,513	242,966	242,535	254,124	12
....	....	....	....	....	219,657	254,414	13
....	....	....	....	....	200,261	225,202	14
....	....	....	....	....	....	215,421	15
....	....	....	....	....	....	210,581	16
....	....	....	....	....	....	201,718	17
4,736,284	5,494,324	5,072,924	4,680,664	5,888,026	6,367,177	7,554,996	
1886	1887	1888	1889	1890	1891	1892	
£	£	£	£	£	£	£	
246,031	256,736	267,727	270,675	270,583	296,025	302,454	1
....	....	....	201,159	235,274	315,596	254,062	2
5,223,179	5,713,235	6,200,074	7,028,944	7,429,073	8,766,430	9,300,904	3
333,655	357,886	406,185	430,703	472,668	525,734	457,673	4
224,870	224,259	223,217	231,256	241,262	256,326	272,967	5
480,204	526,002	558,771	639,223	692,435	802,936	861,959	6
312,230	322,090	337,368	350,698	345,335	378,008	380,861	7
240,239	236,042	241,033	246,112	262,624	288,821	293,317	8
....	206,549	206,549	206,490	....	220,348	221,310	9
....	222,008	....	....	216,516	280,226	274,576	10
....	....	....	....	....	....	....	11
229,886	233,181	249,340	267,960	282,957	298,154	290,960	12
335,877	327,288	357,001	392,458	428,529	496,011	516,906	13
269,585	266,005	272,877	282,186	301,347	334,053	344,797	14
283,903	293,876	292,635	327,704	395,433	498,489	531,964	15
228,946	228,523	233,454	242,959	254,074	271,883	267,446	16
209,426	252,682	269,865	287,844	294,357	312,865	307,116	17
338,030	328,848	327,911	338,339	380,895	432,338	445,004	18
209,291	211,226	214,728	209,776	....	206,140	207,945	19
200,931	209,969	212,471	229,224	266,886	266,886	308,426	20
....	204,127	209,948	219,917	225,464	241,008	232,648	21
....	....	202,930	224,911	223,265	256,500	290,930	22
....	....	204,501	225,488	240,827	279,942	290,710	23
....	....	213,219	238,824	256,530	281,727	298,019	24
....	....	....	....	221,269	....	203,953	25
....	....	....	....	212,113	240,675	240,570	26
....	....	....	....	....	206,315	213,889	27
....	....	....	....	....	213,846	202,596	28
....	....	....	....	....	200,255	237,147	29
....	....	....	....	....	213,703	226,566	30
....	....	....	....	....	....	231,464	31
9,366,283	10,620,532	11,701,804	13,092,850	14,149,716	17,381,240	18,509,139	

## CO-OPERATIVE SOCIETIES—ENGLAND AND WALES.

## BIRD'S-EYE VIEW OF SALES.

TABLE (7), showing the SALES of all SOCIETIES which, during the years 1889 to 1892, were over £100,000 and under £200,000 a year; also SALES of the same SOCIETIES for the year 1882.

No.	NAME OF SOCIETY.	COUNTY.	1882.	1889.	1890.	1891.	1892.
			£	£	£	£	£
1	Crewe Friendly .....	Cheshire .....	119,636	167,214	187,837	(over)	(over)
2	Stockport (Chestergate) .....	Cheshire .....	40,776	....	....	110,017	116,337
3	Carlisle .....	Cumberland .....	87,023	100,614	106,112	127,264	129,453
4	Cleator Moor .....	Cumberland .....	137,948	157,731	144,694	134,701	119,818
5	Derby .....	Derbyshire .....	101,905	152,304	180,204	(over)	(over)
6	Ripley .....	Derbyshire .....	53,268	....	....	112,216	121,977
7	Plymouth .....	Devonshire .....	114,959	184,733	(over)	(over)	(over)
8	Annfield Plain .....	Durham .....	42,131	118,370	148,232	177,637	159,583
9	Blaydon .....	Durham .....	116,778	160,494	157,161	168,402	147,343
10	Cornforth and Coxhoe .....	Durham .....	36,296	....	103,938	117,362	....
11	Chester-le-Street .....	Durham .....	99,364	173,875	190,236	(over)	(over)
12	Crook .....	Durham .....	129,024	184,684	(over)	138,753	(over)
13	Derwent Flour Mill .....	Durham .....	....	....	....	118,753	....
14	Haswell .....	Durham .....	102,676	....	116,527	119,956	....
15	Jarrow Industrial .....	Durham .....	64,474	....	101,475	113,000	112,520
16	Stockton-on-Tees .....	Durham .....	49,394	....	....	111,063	114,551
17	Sunderland .....	Durham .....	63,291	....	....	103,857	110,773
18	Stratford .....	Essex .....	64,353	155,973	154,292	174,079	177,107
19	Cwmbach and Aberaman .....	Glamorgan .....	72,169	....	103,886	127,293	128,488



20	Gloucester .....	Gloucestershire.	78,471	115,350	112,943	121,209	123,485
21	Woolwich Royal Arsenal.....	Kent .....	44,690	126,078	132,697	174,943	143,108
22	Accrington and Church .....	Lancashire .....	180,663	....	199,550	....	(over)
23	Barrow-in-Furness .....	Lancashire .....	25,450	....	....	115,198	108,380
24	Eccles .....	Lancashire .....	95,998	167,614	183,749	195,219	189,767
25	Fallsworth .....	Lancashire .....	104,110	112,664	114,192	128,941	139,834
26	Farnworth and Kearsley.....	Lancashire .....	63,000	....	104,586	121,266	131,075
27	Heywood .....	Lancashire .....	83,471	101,543	105,025	113,510	110,042
28	Leigh .....	Lancashire .....	120,329	132,280	108,557	167,549	(over)
29	Nelson .....	Lancashire .....	33,528	....	....	....	104,776
30	Oldham Star Corn Mill .....	Lancashire .....	174,138	135,650	....	....	197,629
31	Over Darwen Industrial .....	Lancashire .....	92,691	111,404	106,955	115,774	129,314
32	Preston .....	Lancashire .....	42,609	114,754	114,754*	133,536	143,627
33	Rochdale Manufacturing.....	Lancashire .....	88,814	135,500	140,261	149,380	148,479
34	Rochdale .....	Lancashire .....	....	(over)	191,928	(over)	(over)
35	Leicester .....	Leicestershire ..	127,050	124,423	124,159	138,581	151,859
36	Lincoln .....	Lincolnshire ..	84,217	134,378	147,557	175,662	183,203
37	Cramlington .....	Northumbria ..	68,119	....	....	109,571	115,095
38	Dudley .....	Worcestershire ..	1,440	....	....	100,908	....
39	Batley .....	Yorkshire .....	98,885	114,111	116,519	131,181	133,083
40	Brightside and Carbrook .....	Yorkshire .....	10,300	....	....	....	100,873
41	Dewsbury .....	Yorkshire .....	139,549	168,861	178,474	(over)	(over)
42	Doncaster .....	Yorkshire .....	52,399	....	....	....	103,464
43	Halifax Flour .....	Yorkshire .....	147,737	195,295	(over)	(over)	(over)
44	Heckmondwike .....	Yorkshire .....	159,202	155,607	163,482	168,016	157,931
45	Keighley .....	Yorkshire .....	82,203	131,735	146,693	159,144	161,324
46	Middlesbrough .....	Yorkshire .....	67,071	113,799	123,096	125,542	103,789
47	Morley .....	Yorkshire .....	87,000	104,221	115,394	123,098	126,950
48	Sowerby Bridge .....	Yorkshire .....	82,132	....	....	104,937	106,642
49	Todmorden .....	Yorkshire .....	48,704	123,777	127,359	134,610	134,874
50	Windhill .....	Yorkshire .....	52,927	123,577	124,420	123,615	122,430
			4,032,262	4,298,613	4,676,944	5,085,743	4,808,983

\* 1889.

## SALES OF CIVIL SERVICE SUPPLY STORES.

	Civil Service Supply.	Civil Service (Haymarket).	New Civil Service.
	£	£	£
1871 .....	625,305	....	....
1872 .....	712,399	....	....
1873 .....	819,428	....	....
1874 .....	896,094	....	....
1875 .....	925,332	....	....
1876 .....	983,545	....	....
1877 .....	946,780	....	....
1878 .....	1,384,042	....	....
1879 .....	1,474,923	....	....
1880 .....	1,420,619	514,399	....
1881 .....	1,488,507	520,155	139,367
1882 .....	1,603,670	497,650	....
1883 .....	1,682,655	329,805	149,478
1884 .....	1,691,455	481,560	148,975
1885 .....	1,758,648	468,992	150,948
1886 .....	1,743,306	465,096	150,383
1887 .....	1,732,483	469,456	155,000
1888 .....	1,763,814	473,817	158,028
1889 .....	1,775,500	481,120	158,317
1890 .....	1,789,397	481,352	164,160
1891 .....	1,817,779	475,066	178,761
1892 .....	1,749,384	471,133	168,582

Above we give the Sales of the Civil Service Supply Stores as distinct from the ordinary distributive societies appearing in the previous tables.

# PUBLIC ACTS OF PARLIAMENT PASSED DURING THE SESSION 1892-93.

\* \* *The figure before each Act denotes the Chapter.*

56 and 57 of Victoria.

1. An Act to make further provision for the expenses of the Coinage Act 1891.
2. An Act to exempt from Income Tax the invested funds of trade unions applied in payment of provident benefits.
3. An Act to apply certain sums out of the Consolidated Fund to the service of the years ending March, 31, 1891-92-93-94.
4. An Act to provide during twelve months for the discipline and regulation of the Army.
5. An Act to consolidate and amend the law relating to the payment of regimental debts and the disposal of the effects of officers and soldiers in case of death, insanity, and other causes.
6. An Act to remove disabilities of policemen with regard to their votes in Municipal, School Board, and other elections.
7. An Act to grant certain duties of Customs and Inland Revenue, to repeal and alter other duties, and to amend the law relating to revenue.
8. An Act to amend the Local Authorities Loans (Scotland) Act 1891.
9. An Act to amend the Municipal Corporations Act.
10. An Act to amend the Police Acts.
11. An Act to amend the Public Libraries Act 1892.
12. An Act to make provision for the establishment of day industrial schools in Scotland, and to amend the Acts 1872 to 1883.
13. An Act to enable sanitary authorities in Ireland to take possession of land for the erection of temporary cholera hospitals.
14. An Act for further promoting the revision of the Statute Law by repealing Enactments which have ceased to be in force or become unnecessary.

## PUBLIC ACTS OF PARLIAMENT PASSED DURING THE SESSION 1892-93.

15. An Act to amend the Acts relating to Reformatory Schools in Scotland.
16. An Act to apply a sum out of the Consolidated Fund to the service of the year ending March 31, 1894.
17. An Act to carry into effect an International Convention respecting the liquor traffic in the North Sea.
18. An Act to reduce the limit of the balance of the Treasury Fund.
19. An Act to amend the law relating to weights and measures.
20. An Act to extend the provisions of the Duchy of Cornwall Management Act 1863, relating to the powers of sale and enfranchisement, and for other purposes.
21. An Act to amend the law relating to the avoidance of voluntary conveyances.
22. An Act to amend the Appellate Jurisdiction Act 1876 so far as regards appeals *in forma pauperis*.
23. An Act to provide for prohibiting the catching of seals at certain periods in the Behring Sea and other parts of the Pacific Ocean adjacent to the Behring Sea.
24. An Act to grant money for the purpose of certain local loans.
25. An Act to amend the Burgh Police (Scotland) Act 1892.
26. An Act to explain and amend certain provisions of the Prison Act 1877 with respect to the superannuation of prison officers.
27. An Act to appoint additional Commissioners for executing the Acts for granting a Land Tax and other rates and taxes.
28. An Act to apply a sum out of the Consolidated Fund to the service of the year ending March 31, 1894.
29. An Act to amend the law with respect to the hours of labour of railway servants.
30. An Act to amend the Friendly Societies Act 1875.
31. An Act to explain the Rivers Pollution Prevention Act 1876.
32. An Act to prevent the use of barbed wire for fences in roads, streets, lanes, and other thoroughfares.
33. An Act to remove certain doubts as to the application of Part III. of the Housing of the Working Classes Act 1890, to certain authorities in Ireland.
34. An Act to extend the operation of the Improvement of Land Act 1864 so far as regards Scotland.
35. An Act to amend the power of Congested Districts Board of Ireland so far as respects the purchase and holding of property.

## PUBLIC ACTS OF PARLIAMENT PASSED DURING THE SESSION 1892-93.

36. An Act to amend the Law of Distress and Small Debts (Ireland) Act 1888.
37. An Act to better define the jurisdiction and to improve the procedure of the Court of Passage in the city of Liverpool, and for other purposes connected therewith.
38. An Act to make further provision for the conveyance of Her Majesty's mails.
39. An Act to consolidate and amend the laws relating to industrial and provident societies.
40. An Act to make provision for certain purposes relating to local loans.
41. An Act to amend the Irish Education Act 1892.
42. An Act to make better provision for the elementary education of blind and deaf children in England and Wales.
43. An Act to confer further powers under the Contagious Diseases (Animals) Acts 1878 to 1892 with respect to swine fever.
44. An Act to make provision in regard to the consignment of money in the Sheriffs Courts, Scotland.
45. An Act to make further provision for the completion and equipment of ships under the Naval Defence Act 1889, and to amend that Act.
46. An Act to apply a sum out of the Consolidated Fund to the service of the year ending March 31, 1894.
47. An Act to amend the Public Health (London) Act 1891 with respect to the removal of refuse.
48. An Act to amend the law relating to reformatory schools.
49. An Act to amend the law relating to the appointment of county surveyors in Ireland.
50. An Act to amend the provisions as to payment for light railways in Ireland.
51. An Act to amend the Elementary Education Acts with respect to the age for attendance at school.
52. An Act to amend the Burghs Gas Supply (Scotland) Act 1876.
53. An Act relating to the Trustees Act.
54. An Act relating to Statute Law Revision (No. 2) Act.
55. An Act relating to the Metropolis Management (Plumstead and Hackney).
56. An Act relating to Fertilisers and Feeding Stuffs.
57. An Act relating to the Law of Commons Amendment Act.
58. An Act relating to the Companies (Winding-up).
59. An Act relating to the Expiring Laws Continuance Act.
60. An Act relating to the Appropriation Act.

# HOUSE OF LORDS (SALARY, PAY, PENSION, OR ALLOWANCE).

RETURN showing the Names of all present MEMBERS of this HOUSE who are in receipt of PUBLIC MONEY from the NATIONAL EXCHEQUER, whether in the form of Salary, Pay, Pension, or Allowance of any kind, or who have received Commutation in respect thereof under the Commutation Acts, with separate columns showing the Amounts they receive or have Commuted, with the Amount of the Commutation Money, and the Name of the Office or Nature of the Service for which the Money is or has been paid.

## RETURN of the Names of all present MEMBERS of the HOUSE OF LORDS who are in receipt of PUBLIC MONEY from ARMY VOTES. (From Official Sources.)

Name.	Nature of Appointment.	Pay.			Allowance.			Amount Paid for Commutation of Pension.			Remarks.
		£	s.	d.	£	s.	d.	£	s.	d.	
Airle, Earl of.....	Major, 10th Hussars .....	182	10	0							
Amphill, Lord .....	Adjutant, Hants Yeomanry. Lieutenant, Royal 1st Devon Yeomanry .....	4	8	0	1	13	11				
Annaly, Lord .....	Captain, Scots Guards .....	351	7	11							
Aylesford, Lord .....	Captain, Warwickshire Yeomanry.	5	0	6	1	17	0				
Bagot, Lord.....	Captain and Honorary Major, Staffordshire Yeomanry.....	7	2	8	1	17	0				
Bathurst, Earl .....	Captain, 4th Battalion, Gloucestershire Regiment .....	15	12	9	10	19	4				
Beaumont, Lord.....	Lieutenant Colonel, 20th Hussars.	447	2	6	5	12	6				
Belper, Lord .....	Colonel Commanding, South Notts Yeomanry .....	14	0	0	2	9	4				

Blythwood, Lord .....	Colonel Commanding, 4th Battalion Argyll and Sutherland High- landers .....	25 4 0 1,000 0 0	10 18 6 ....	.... ....	See also payments from Consolidated Fund.
Bridport, Viscount .....	General, retired list .....				
Caledon, Earl of .....	Captain and Honorary Major, 4th Battalion, Royal Inniskilling Fusiliers .....	15 12 9	11 3 1	....	See also payments from Consolidated Fund.
Cambridge, H.R.H. Duke of	Commander in Chief, and Colonel, Grenadier Guards .....	6,631 14 2	....	....	
Carnwarth, Earl of .....	Major and Honorary Lieutenant Colonel, retired pay .....	200 0 0	....	....	
Chelmsford, Lord .....	General, active list .....	800 0 0	....	....	
Chesham, Lord .....	Meritorious service reward .....	100 0 0	....	....	
Clarendon, Earl of .....	Colonel Commanding, Bucks Yeo- manry .....	17 18 0	3 1 8	....	
Clarina, Lord .....	Colonel Commanding, Herts Yeo- manry .....	12 8 0	2 9 4	....	
Connaught, H.R.H. Duke of	General, retired list .....	940 0 0	....	....	
	Lieutenant General, Commanding Southern District .....	2,007 10 0	814 12 3	....	See also payments from Consolidated Fund.
Cork and Orrery, Earl of ..	Colonel Commanding, North Somerset Yeomanry .....	14 16 0	1 4 8	....	
Craven, Earl of .....	Captain, Berks Yeomanry .....	5 16 8	2 17 0	....	
Delamere, Lord .....	Captain, Earl of Chester's Yeo- manry .....	3 4 0	1 4 8	....	
De Ros, Lord .....	Major General and Honorary Lieutenant General, retired list ..	700 0 0	....	....	
De Vesci, Viscount .....	Lieutenant Colonel, retired pay ..	200 15 0	....	....	
Dudley, Earl .....	Captain, Worcestershire Yeomanry	6 11 3	2 1 7	....	
Dundonald, Earl of .....	Major and Brevet Colonel, 2nd Life Guards .....	346 15 0	103 7 8	....	
Ellesmere, Earl of .....	Colonel Commanding, Duke of Lancaster's Yeomanry .....	11 14 0	0 18 6	....	

## HOUSE OF LORDS (SALARY, PAY, PENSION, OR ALLOWANCE).

Names of all present Members of the House of Lords who are in receipt of Public Money from Army Votes.—*Continued.*

Name.	Nature of Appointment.	Pay.			Allowance.			Amount Paid for Commutation of Pension.			Remarks.
		£	s.	d.	£	s.	d.	£	s.	d.	
Errol, Earl of.....	Lieutenant Colonel, Royal Horse Guards .....	463	7	6	59	3	10	....			
Essex, Earl of.....	Captain, Herts Yeomanry.....	5	2	1	2	10	0	....			
Falmouth, Viscount .....	Major and Colonel, Coldstream Guards .....	491	12	3	....			....			
Galway, Viscount .....	Colonel Commanding, Sherwood Rangers Yeomanry.....	13	11	0	2	1	7	....			
Gerard, Lord .....	Lieutenant Colonel Commanding, Lancashire Hussars Yeomanry..	11	17	3	2	15	6	....			
Grafton, Duke of .....	Lieutenant General and Honorary General, retired list .....	850	0	0	....			....			See also payments from Consolidated Fund.
Haddington, Earl of .....	Colonel Commanding, Lothians and Berwickshire Yeomanry....	12	8	0	2	9	4	....			
Harewood, Earl of.....	Colonel Commanding, Yorkshire Hussars Yeomanry .....	15	12	0	1	17	0	....			
Harrington, Earl of .....	Major and Honorary Lieutenant Colonel, Earl of Chester's Yeomanry .....	10	7	0	1	10	10	....			
Hertford, Marquis of.....	Major and Honorary Lieutenant Colonel, Warwickshire Yeomanry	5	15	6	2	9	4	....			
Howe, Earl .....	General .....	1,800	0	0	....			....			
Kenyon, Lord.....	Colonel 2nd Life Guards. Captain, Shropshire Yeomanry ..	7	5	10	2	6	3	....			



Kilmorey, Earl of .....	Lieutenant Colonel Commanding, Shropshire Yeomanry .....	14	0	0	2	9	4	....	} See also payments from Consolidated Fund.
Kingston, Earl of .....	Major and Honorary Lieutenant Colonel, 5th Battalion, Connaught Rangers .....	21	12	0	14	17	0	....	
Lamington, Lord .....	Lieutenant, Lanarkshire Yeomanry .....	2	5	0	0	7	8	....	
Longford, Earl of .....	Lieutenant, 2nd Life Guards .....	164	5	0	78	6	9	....	
Malmesbury, Earl of .....	Major and Honorary Lieutenant Colonel, retired pay .....	242	0	0	....	....	....	....	
Methuen, Lord .....	Major General, Commanding Home District .....	1,095	0	0	269	16	9	....	
Montrose, Duke of .....	Colonel Commanding, 3rd Battalion Argyll and Sutherland High- landers .....	27	0	0	8	16	0	....	
Ditto. ....	Colonel Commanding, Glasgow Yeomanry .....	12	8	0	2	9	4	....	
Ormonde, Marquis of .....	Colonel Commanding, Royal East Kent Yeomanry .....	16	6	0	3	1	8	....	
Percy, Earl .....	Colonel Commanding, 3rd Battalion Northumberland Fusiliers .....	27	0	0	15	16	0	....	
Raglan, Lord .....	Captain, retired pay .....	127	15	0	....	....	....	....	} See also payments from Consolidated Fund.
Ditto. ....	Captain, Royal Monmouth Engineer Militia .....	27	16	11	16	17	1	....	
Richmond and Gordon, Duke of .....	Captain and Honorary Major, retired pay .....	91	5	0	....	....	....	....	
Rodney, Lord .....	Captain, Shropshire Yeomanry ..	7	5	10	2	6	3	....	
Romilly, Lord .....	Lieutenant, Coldstream Guards ..	188	12	6	....	....	....	....	
Saltoun, Lord .....	Lieutenant Colonel, 3rd Battalion, Gordon Highlanders .....	16	16	0	8	18	6	....	
Sandhurst, Lord .....	Under Secretary of State for War..	1,500	0	0	....	....	....	....	
Sandwich, Earl of .....	Lieutenant Colonel Commanding, 5th Battalion, King's Royal Rifle Corps .....	27	0	0	16	4	0	....	
Scarborough, Earl of .....	Lieutenant Colonel Commanding, Yorkshire Dragoons Yeomanry ..	15	12	0	2	9	4	....	
Shaftesbury, Earl of .....	Lieutenant, 10th Hussars .....	139	18	4	1	17	6	....	

## HOUSE OF LORDS (SALARY, PAY, PENSION, OR ALLOWANCE).

Names of all present Members of the House of Lords who are in receipt of Public Money from Army Votes.—*Continued.*

Name.	Nature of Appointment.	Pay.		Allowance.		Amount Paid for Commutation of Pension.			Remarks.
		£	s. d.	£	s. d.	£	s.	d.	
Strathallan, Viscount .....	Captain and Honorary Lieutenant Colonel, retired pay.....	*130	0 0	....	....	1,145	7	0	*Reduced from £230 by commutation on 7th August, 1889.
Sutherland, Duke of .....	Colonel Commanding, Staffordshire Yeomanry .....	15	12 0	1	4 6	....	....	....	
Tenterden, Lord .....	Lieutenant, 3rd Battalion, York and Lancaster Regiment .....	8	15 6	9	17 6	....	....	....	
Wales, H.R.H. Prince of ..	Field Marshal .....	1,350	0 0	....	....	....	....	....	See also payments from Consolidated Fund.
Willoughby de Broke, Lord	Colonel, 10th Hussars.								
Winchester, Marquis of ..	Colonel Commanding, Warwickshire Yeomanry .....	13	6 0	2	9 4	....	....	....	
Windsor, Lord .....	Captain, Coldstream Guards.....	251	7 11	....	....	....	....	....	
Wolsey, Viscount .....	Major, Worcestershire Yeomanry..	7	14 0	1	4 8	....	....	....	
	General Commanding Forces in Ireland .....	2,920	0 0	1,215	0 0	....	....	....	See also payments from Consolidated Fund.
	Meritorious Service Reward .....	100	0 0	....	....	....	....	....	
	Wounds Pension .....	100	0 0	....	....	....	....	....	

The following Officers would have been entitled to Pay and Allowance had they attended the last Annual Training.

Name.	Nature of Appointment.	Pay.		Allowance.		Amount Paid for Commutation of Pension.		Remarks.
		£	s. d.	£	s. d.	£	s. d.	
Abinger, Lord.....	Lieutenant, 2nd Battalion, Cameron Highlanders.....	....		....		....		
Braye, Lord.....	Captain, 3rd Battalion, Leicestershire Regiment.....	....		....		....		
Camden, Marquis.....	Second Lieutenant, West Kent Yeomanry.....	....		....		....		
Carrington, Lord.....	Lieutenant Colonel, 3rd Battalion, Oxfordshire Light Infantry....	....		....		....		
Deramore, Lord.....	Second Lieutenant, Yorkshire Hussars Yeomanry.....	....		....		....		
Harris, Lord.....	Captain and Honorary Major, Royal East Kent Yeomanry....	....		....		....		
Hawke, Lord.....	Captain, 3rd Battalion, Yorkshire Regiment.....	....		....		....		
Home, Earl of.....	Colonel Commanding, Lanarkshire Yeomanry.....	....		....		....		
Hopetoun, Earl of.....	Lieutenant, Lanarkshire Yeomanry.....	....		....		....		
Huntingdon, Earl of.....	Captain, 3rd Battalion, Leinster Regiment.....	....		....		....		
Kintore, Earl of.....	Lieutenant Colonel, 3rd Battalion, Gordon Highlanders.....	....		....		....		
Lovat, Lord.....	Lieutenant, 2nd Battalion, Cameron Highlanders.....	....		....		....		
Marlborough, Duke of....	Second Lieutenant, Oxfordshire Yeomanry.....	....		....		....		
Wenlock, Lord.....	Captain and Honorary Major, Yorkshire Hussars Yeomanry..	....		....		....		
								See also payments from Consolidated Fund.

## HOUSE OF LORDS (SALARY, PAY, PENSION, OR ALLOWANCE).

RETURN of the Names of all present MEMBERS of the HOUSE OF LORDS who are in receipt of PUBLIC MONEY from NAVY VOTES.

Name.	Nature of Appointment.	Pay.			Allowance.			Amount Paid for Commutation of Pension.			Remarks.
		£	s.	d.	£	s.	d.	£	s.	d.	
Alcester, Lord.....	Admiral (retired pay).....	950	0	0	....	....	....	....	....	....	See also payments from Consolidated Fund.
Clanwilliam, Earl of.....	Admiral (full pay), Commander in Chief, Portsmouth .....	1,825	0	0	*1,642	10	0	....	....	....	Whilst on leave, the table money of these officers is reduced or suspended. See also payments from Consolidated Fund.
Edinburgh, H.R.H. The Duke of .....	Wounds Pension .....	91	5	0	†500	0	0	....	....	....	
	Admiral, Commander in Chief, Devonport .....	1,794	0	0	†27	7	6	....	....	....	
Hood of Avalon, Lord .....	Admiral (retired pay) .....	950	0	0	*817	6	0	....	....	....	Is in occupation of an official residence.
	Captain (retired pay) .....	155	2	6	†500	0	0	....	....	....	
	Admiral (retired pay) .....	456	5	0	†19	5	0	....	....	....	
	First Lord of the Admiralty.....	4,500	0	0	....	....	....	....	....	....	
	Captain (full and half pay; also allowances for period of employment in "Melampus.") .....	231	13	9	....	....	....	....	....	....	

\* Table Money.

† Allowance in lieu of servants.

‡ Allowance in lieu of provisions.

**RETURN of the Names of all present MEMBERS of the HOUSE OF LORDS who are in receipt of PUBLIC MONEY from the CONSOLIDATED FUND, CIVIL LIST, or VOTES for CIVIL SERVICES and REVENUE DEPARTMENTS.**

Name.	Nature of Appointment.	Pay.		Allowance.		Amount Paid for Commutation of Pension.		Remarks.
		£	s. d.	£	s. d.	£	s. d.	
<b>*HOUSEHOLD OF HER</b>	<b>MAJESTY:</b>							
Acton, Lord.....	Lord in Waiting .....	700	0 0	....		....		*Paid from the Civil List
Breadalbane, Marquis of ..	Lord Steward .....	2,000	0 0	....		....		See also page 527.
Bridport, Viscount.....	Lord in Waiting .....	700	0 0	....		....		See also payments from Army Votes.
Camroys, Lord.....	Lord in Waiting .....	700	0 0	....		....		
Carrington, Lord .....	Lord Chamberlain .....	2,000	0 0	....		....		See also payments from Army Votes.
Chesterfield, Earl of .....	Treasurer of the Household .....	904	0 0	....		....		
Hamilton of Dalzell, Lord ..	Lord in Waiting .....	700	0 0	....		....		
Kensington, Lord .....	Captain of the Yeomen of the Guard ..	1,200	0 0	....		....		
Lorne, Marquis of .....	Governor of Round Tower, Windsor Castle.....	1,100	0 0	....		....		
Monkswell, Lord .....	Lord in Waiting .....	700	0 0	....		....		
Oxenbridge, Viscount .....	Master of the Horse .....	2,500	0 0	....		....		
Oxford, Bishop of .....	Chancellor of the Order of the Garter .....	502	18 4	....		....		
(For himself and the Officers of the Order) ..								
Playfair, Lord.....	Lord in Waiting .....	700	0 0	....		....		
Ribblesdale, Lord .....	Master of the Buckhounds .....	1,500	0 0	....		....		
Rochester, Bishop of.....	Clerk of the Closet .....	7	0 0	....		....		
Vernon, Lord .....	Captain of the Corps of Gentlemen-at-Arms .....	1,200	0 0	....		....		
Wolverton, Lord .....	Lord in Waiting .....	700	0 0	....		....		
<b>ANNUITIES TO THE</b>	<b>ROYAL FAMILY:</b>							
Cambridge, H.R.H. The Duke of .....	.....	12,000	0 0	....		....		See also payments from Army Votes.

## HOUSE OF LORDS (SALARY, PAY, PENSION, OR ALLOWANCE).

Names of all present Members of the House of Lords who are in receipt of Public Money from the Consolidated Fund, Civil List, or Votes for Civil Service and Revenue Departments.—*Continued.*

Name.	Nature of Appointment.	Pay.		Allowance.	Amount Paid for Commutation of Pension.		Remarks.
		£	s. d.		£	s. d.	
ANNUITIES TO THE							
Connaught, H.R.H. The Duke of .....	ROYAL FAMILY.—Continued.	25,000	0 0	....	....	....	See also payments from Army Votes.
Edinburgh, H.R.H. The Duke of .....		25,000.	0 0	....	....	....	See also payments from Navy Votes.
Wales, H.R.H. The Prince of .....		40,000	0 0	....	....	....	See also payments from Army Votes.
Wales, H.R.H. The Prince of .....		16,216 15 0†	....	....	....	....	† Paid to Receiver of Duchy of Cornwall. The surplus of the Duchy Account is paid to the Prince of Wales. The sum of £36,000 a year is paid to Trustees under the Prince of Wales' Children Act, 1889 (52 and 53 Vict. c. 35).
COURTS OF JUSTICE:							
Coleridge, Lord .....	Lord Chief Justice .....	8,000	0 0	....	....	....	
Esher, Lord .....	Master of the Rolls .....	6,000	0 0	....	....	....	
Hannan, Lord .....	Lord of Appeal in Ordinary .....	6,000	0 0	....	....	....	
Macnaghten, Lord .....	Lord of Appeal in Ordinary .....	6,000	0 0	....	....	....	
Morris, Lord .....	Lord of Appeal in Ordinary .....	6,000	0 0	....	....	....	
Watson, Lord .....	Lord of Appeal in Ordinary .....	6,000	0 0	....	....	....	

HER MAJESTY'S	GOVERNMENT, &c.:	6,000	0	0	....	....	Entitled to a judicial pension when not in office.
Herschell, Lord	Lord Chancellor	4,000	0	0	....	....	
	Speaker of the House of Lords	20,000	0	0	*2,769	4 8	*Allowance for equipage. Salary suspended while holding office of Secretary of State for India.
Houghton, Lord	Lord Lieutenant of Ireland	....	....	....	....	....	
Kimberley, Earl of	Lord President of the Council	5,000	0	0	....	....	
	Secretary of State for the Colonies.	5,000	0	0	....	....	
Ripon, Marquis of	Secretary of State, Foreign Office.	....	....	....	....	....	
Rosebery, Earl of	Under Secretary of State for War.	....	....	....	....	....	
Sandhurst, Lord	First Lord of the Admiralty	....	....	....	....	....	
Spencer, Earl	Hereditary Crown Chamberlain of the Lordship of Strathearn	15	0	0	....	....	
Ancaster, Earl of	High Commissioner to the General Assembly of the Church of Scotland	....	....	....	2,000	0 0	See also page 525.
Breadalbane, Marquis of	Ranger of Richmond Park	109	10	0	....	....	See also payments from Army Votes.
Cambridge, H.R.H. The Duke of	Railway Commissioner	3,000	0	0	....	....	†Office allowance at Cairo
Cobham, Viscount	Agent and Consul General at Cairo	5,000	0	0	†1,000	0 0	See also page 529.
Gromer, Lord	Constable of the Fort of Hillsborough	54	3	4	....	1,354 3 4	
Downshire, Marquis of	Ambassador at Paris	9,000	0	0	†200	0 0	With an official residence
Dufferin and Ava, Marquis of	Hereditary Keeper of Holyrood Palace	45	10	0	....	....	†Allowance for petty repairs.
Hamilton, Duke of	Chairman of Committees, House of Lords	2,500	0	0	....	....	
Morley, Earl of	Master of the Hawks	965	0	0	....	18,335 0 0	
St. Alban's, Duke of	Second Secretary, Diplomatic Service	550	0	0	....	....	With an official residence
Vaux of Harrowden, Lord	Ambassador at Rome	7,000	0	0	\$50	0 0	§Allowance for petty repairs.
Vivian, Lord	AND MILITARY SERVICES:	....	....	....	....	....	Single payment.
	PENSIONS FOR NAVAL	....	....	....	....	....	See also payments from Navy Votes.
Alcester, Lord		....	....	....	....	....	

# HOUSE OF LORDS (SALARY, PAY, PENSION, OR ALLOWANCE).

Names of all present Members of the House of Lords, who are in receipt of Public Money from the Consolidated Fund, Civil List, or Votes for Civil Service and Revenue Departments. — *Continued.*

Name.	Nature of Appointment.	Pay.	Allowance.	Amount Paid for Commutation of Pension.	Remarks.
PENSIONS FOR NAVAL AND MILITARY SERVICES.— <i>Con.</i>					
Amherst, Lord	.....	£ s. d. 3,000 0 0	£ s. d. ....	£ s. d. 80,835 0 0	
Combermere, Viscount	.....	2,000 0 0	....	....	
Exmouth, Viscount	.....	2,000 0 0	....	53,890 0 0	
Hough, Viscount	.....	2,000 0 0	....	....	
Hardinge, Viscount	.....	3,000 0 0	....	....	
Keane Lord	.....	2,000 0 0	....	....	
Napier of Magdala, Lord	.....	2,000 0 0	....	....	
Nelson, Earl	.....	5,000 0 0	....	....	See also payments from Army Votes.
Raglan, Lord	.....	2,000 0 0	....	....	See also payments from Army Votes.
Rodney, Lord	.....	2,000 0 0	....	....	
Seaton, Lord	.....	2,000 0 0	....	....	
Wellington, Duke of	.....	4,000 0 0	....	....	
Wolseley, Viscount	.....	....	....	¶ 1874: 25,000 0 0 ¶ 1883: 30,000 0 0	¶ Single payments. See also payments from Army Votes.





## HOUSE OF COMMONS.

RETURN showing the Names of all present MEMBERS of the HOUSE OF COMMONS who are in receipt of PUBLIC MONEY from the NATIONAL EXCHEQUER, whether in the form of Salary, Pay, Pension, or Allowance of any kind, or who have received Commutation in respect thereof under the Commutation Acts, with separate columns showing the Names of the Constituencies for which they sit, the Amounts they receive or have commuted, with the Amount of the Commutation Money, and the Name of the Office or Nature of the Service for which the Money is or has been paid (in continuation of Parliamentary Paper, No. 396, of Session 1888).

RETURN of the Names of all MEMBERS of the HOUSE OF COMMONS who are in receipt of PUBLIC MONEY from ARMY VOTES, &c. (From Official sources).

Name.	Name of Constituencies.	Nature of Appointment.	Pay.	Allowance.	Amount paid for Commutation of Pension, &c.	Remarks.
Baird, J. G. A. ....	Glasgow, Central ....	Captain, Ayrshire Yeomanry.	£ s. d. 5 16 8	£ s. d. 2 10 0	£ s. d. ....	
Bass, H. A. . . . .	Western Division, Staffordshire.	Lieut. Colonel and Hon. Colonel 4th Battalion North Staffordshire Regiment .....	22 19 0	14 9 1	....	
Bill, C. ....	Leek Division, Staffordshire.	Major and Hon. Lieut. Colonel 4th Battalion North Staffordshire Regiment .....	21 12 0	10 13 10	....	
Bowles, H. F. ....	Enfield Division, Middlesex.	Captain 7th Battalion Rifle Brigade .....	15 12 9	10 11 10	....	
Bridgeman, Hon. F. C.	Bolton .....	Colonel and Lieut. Colonel, half pay, late Scots Guards.	200 15 0	....	....	
Brymer, W. E. ....	Southern Division, Dorsetshire.	Captain and Hon Major Dorset Yeomanry .....	5 16 8	1 17 0	..	

Burghley, Rt. Hon. Lord	Northern Division, Northamptonshire.	Lieut. Colonel 3rd and 4th Battalions, Northampton- shire Regiment .....	23 19 0	17 11 0	....	In commutation of £256 of his retired pay.
Campbell - Bannerman, Right. Hon. H.	Stirling District ....	Secretary of State for War ..	5,000 0 0	....	....	
Cavendish, V. C. W. ..	Western Division, Derbyshire.	2nd Lieut. Derbyshire Yeomanry.....	3 12 0	0 12 4	....	
Cornwallis, F. S. W. ...	Maidstone .....	Captain West Kent Yeomanry	5 16 8	2 10 0	..	
Cranbourne, Viscount.	Rochester .....	Lieut. Colonel 4th Battalion Bedfordshire Regiment .....	20 16 0	9 3 0	....	
Darwin Leonard.....	Lichfield Division, Staffordshire.	Major, retired pay, late Royal Engineers .....	200 0 0	....	....	
Dickson-Poynder, Sir J. P., Bart.	Chippenham Division, Wiltshire.	2nd Lieut. Royal Wilts Yeomanry.....	4 8 0	1 4 8	....	
Egerton, Hon. A. de T.	Knutsford Division, Cheshire.	Captain and Hon. Major Cheshire Yeomanry .....	6 11 3	1 17 0	....	
Fielden, R. J., C.M.G....	Chorley Division, North Lancashire.	Major General and Hon. Lieut. General, retired pay ..	700 0 0	....	....	
FitzWygram, Sir F. W.	Southern or Fareham Division, Hampshire	Lieut. General and Colonel 15th Hussars .....	1,185 0 0	....	....	
Goldsworthy, W. T. ....	Hammersmith.....	Hon. Major Gen., retired pay	466 0 0	....	1,951 16 6	
Heath, J. ....	North Western Divi- sion, Staffordshire.	Captain and Hon. Major Staffordshire Yeomanry....	7 5 10	2 19 3	....	
Kenny, M. J. ....	Mid Tyrone Division, Tyrone.	Captain Clare Artillery.....	8 2 2	5 1 3	....	
Kenyon-Slaney, W. S. ..	North or Newport Di- vision, Shropshire.	Colonel, retired pay .....	420 0 0	....	....	
Lambert, G. ....	South Molton Divi- sion, Devonshire.	2nd Lieut. 3rd Battalion Devonshire Regiment.....	23 2 0	26 8 0	....	
Lawson, H. L. W. ....	Girencester Division, Gloucestershire.	Captain Buckinghamshire Yeomanry.....	5 16 8	2 14 7	....	
Legh, Hon. T. W. ....	Newton Division, South West Lanc.	Captain Lancashire Hussars Yeomanry.....	7 1 0	2 1 7	....	
Long, W. H. ....	West Derby Division, Liverpool.	Major Royal Wilts Yeomanry	8 13 3	2 9 4	....	
Luttrell, H. C. F. ....	Western Division, Devonshire.	Captain, retired pay, Captain and Hon. Major 3rd Duke of Cornwall's Light Infantry ..	127 15 0	....	....	

## HOUSE OF COMMONS.

Names of all Members of the House of Commons who are in receipt of Public Money from Army Votes, &c.—*Continued.*

Name.	Name of Constituencies.	Nature of Appointment.	Pay.	Allowance.	Amount paid for		Remarks.
					Commutation of Pension, &c.	£ s. d.	
Mulholland, Hon. H. L.	Northern Division, Londonderry.	Major 5th Battalion Royal Irish Rifles .....	21 12 0	10 8 6	....	....	
Murray, C. W. ....	Bath .....	Colonel, retired pay, Gentleman-at-Arms .....	300 0 0	....	....	....	
Nolan, J. P. ....	North Galway ..	Lieut. Colonel Royal Artillery, retired .....	250 0 0	....	3,186 4 0	....	
O'Connor, Arthur ..	East Donegal .....	Clerk, War Office, retired ...	172 10 0	....	2,420 18 6	....	
Rasch, F. C. ....	South East Essex ..	Captain and Hon. Major 4th Battalion Essex Regiment ..	15 12 9	7 1 7	...	...	
Ridley, Right Hon. Sir M. W., Bart.	Blackpool, Lancashire	Lieut. Colonel and Hon. Colonel Northumberland Yeomanry .....	14 0 0	1 17 0	....	....	See also Civil Department.
Seale - Hayne, Right Hon. C.	Ashburton, Devonshire.	Lieut. Colonel and Hon. Colonel 3rd Battalion Devonshire Regiment .....	22 19 0	14 13 11	....	....	
Sitwell, Sir G. R., Bart.	Scarborough ..	Captain Yorkshire Dragoons Yeomanry .....	5 16 8	1 17 0	....	....	
Smith, Abel H. ....	East Herts .....	Captain Herts Yeomanry ..	5 16 8	2 10 0	....	....	
Stock, J. H. ....	W Walton, Liverpool ...	Lieut. Lancashire Hussars Yeomanry .....	3 10 3	1 7 9	....	....	
Tollemache, H. J. ....	Eddisbury, Cheshire..	Captain and Hon. Major Cheshire Yeomanry .....	6 11 3	2 1 7	....	....	
Warde, C. E. ....	Mid Kent .....	Major, retired pay, Major and Hon. Lieut. Colonel West Kent Yeomanry .....	200 0 0	....	....	....	



## HOUSE OF COMMONS.

RETURN of the Names of all MEMBERS of the HOUSE OF COMMONS who are in receipt of PUBLIC MONEY from NAVY VOTES.

Name.	Name of Constituencies.	Nature of Appointment.	Pay.	Allowance.	Amount paid for Commutation of Pension, &c.	Remarks.
			£ s. d.	£ s. d.	£ s. d.	
Kay-Shuttleworth, Rt. Hon. Sir U., Bart...	North East Lancashire, Clitheroe Division.	Parliamentary Secretary, Admiralty .....	2,000 0 0	....	....	
Robertson, Edmd., LL.D.	Dundee City .....	Civil Lord, Admiralty .....	1,000 0 0	....	....	
Bethell, G. R. ....	York, East Riding, Holderness.	Commander, R.N., retired pay.	200 0 0	....	....	
Carmichael, Sir J. M., Bart.	Glasgow, St. Rollox Division.	Late Clerk, Secretary's Department, Admiralty, pension...	262 10 0	....	....	
Field, Edward .....	Sussex, Eastbourne Division.	Vice Admiral, retired pay ....	365 0 0	....	....	
Hill, Right Hon. A. Staveley, Q.C.	Staffordshire, Kingwinford.	Counsel to the Admiralty and Judge Advocate of the Fleet.	100 0 0	....	....	In addition to fees.

**RETURN of the Names of all MEMBERS of the HOUSE OF COMMONS who are in receipt of PUBLIC MONEY paid from the CONSOLIDATED FUND, CIVIL LIST, or VOTES for CIVIL SERVICE or REVENUE DEPARTMENTS.**

Name.	Name of Constituencies.	Nature of Appointment.	Pay.	Allowance.	Amount paid for Commutation of Pension, &c.	Remarks.
			£ s. d.	£ s. d.	£ s. d.	
HOUSEHOLD OF Gower, G. G. Leveson. Murray, Colonel C. Wyndham. Spencer, Rt. Hon. C. R.	HER MAJESTY: Stoke-upon-Trent .... Bath ..... Northampton, Mid...	Comptroller of the Household Corps of Gentlemen at Arms.. Vice-Chamberlain .....	904 0 0 70 0 0 900 0 0	.... .... ....	.... .... ....	See also pay- ments from Army Votes.
HER MAJESTY'S Acland, Right Hon. A. H. D. Asher, Alexander .. Asquith, Rt. Hon. H. H. Balfour, Rt. Hon. J. B. Burt, T. .... Buxton, Sydney C....	GOVERNMENT, &c. Yorkshire, West Rid- ing, Rotherham. Elgin Burghs ..... Fife, East ..... Clackmannan, &c.... Morpeith .....	Vice-President of the Council Solicitor General for Scotland Secretary of State, Home Office Lord Advocate, Scotland .... Secretary to Board of Trade.. Under Secretary of State, Colonial Office. ....	2,000 0 0 955 0 0 5,000 0 0 3,237 10 0 1,200 0 0 1,500 0 0 ....	.... .... .... .... .... .... ....	.... .... .... .... .... .... ....	
Campbell - Bannerman, Right Hon. H. Causton, R. K. .... Ellis, T. E. .... Foster, Sir B. W., M.D. Fowler, Rt. Hon. H. H. Gardner, Rt. Hon. H.. Gladstone, H. J. ....	Stirling, &c ..... Southwark, West.... Merionethshire .... Derby, Ilkestone .... Wolverhampton, East Essex, Saffron Walden Leeds, West .....	Secretary of State for War .. Junior Lord of the Treasury.. Junior Lord of the Treasury.. Secretary to the Local Govern- ment Board. .... President of the Local Govern- ment Board. .... President of the Board of Agriculture. .... Under Secretary of State, Home Office.....	1,000 0 0 1,000 0 0 1,200 0 0 2,000 0 0 2,000 0 0 1,500 0 0	.... .... .... .... .... ....	.... .... .... .... .... ....	Paid from Army Votes.

## HOUSE OF COMMONS.

Names of all Members of the House of Commons who are in receipt of Public Money paid from the Consolidated Fund, Civil List, or Votes for Civil Service or Revenue Departments - *Continued.*

Name.	Name of Constituencies.	Nature of Appointment.	Pay.		Allowance.	Amount paid for Commutation of Pension, &c.		Remarks.
			£	s. d.		£	s. d.	
HER MAJESTY'S Gladstone, Right Hon. W. E.	GOVERNMENT.— <i>Con.</i> Edinburgh, Midlothian.	First Lord of the Treasury and Lord Privy Seal. ....	5,000	0 0	....	....	....	
Grey, Sir E., Bart. ....	Northumberland, Berwick.	Under Secretary of State, Foreign Office. ....	1,500	0 0	....	....	....	
Harcourt, Right. Hon. Sir W. G. V.	Derby .....	Chancellor of the Exchequer.	5,000	0 0	....	....	....	
Hibbert, Right Hon. Sir J.	Oldham .....	Financial Secretary to the Treasury. ....	2,000	0 0	....	....	....	
Kay-Shuttleworth, Rt. Hon. Sir U., Bart.	Lancashire, Clitheroe	Secretary to the Admiralty ..	....		....	....	....	Paid from Navy Votes.
McArthur, W. A. ....	Cornwall, Mid, St. Austell.	Junior Lord of the Treasury..	1,000	0 0	....	....	....	
Marjoribanks, Right. Hon. E.	Berwickshire.....	Secretary to the Treasury ..	2,000	0 0	....	....	....	
Morley, Right Hon. A.	Nottingham, East ...	Postmaster General .....	2,500	0 0	....	....	....	
Morley, Right Hon. J.	Newcastle-upon-Tyne.	Chief Secretary for Ireland ..	4,425	0 0	....	....	....	
Mundella, Rt. Hon. A. J.	Sheffield, Brightside...	President of Board of Trade.	2,000	0 0	....	....	....	
Rigby, Sir J. ....	Forfarshire .....	Solicitor General .....	6,000	0 0	....	....	....	In addition to fees.
Robertson, E. ....	Dundee .....	Civil Lord of the Admiralty..	....		....	....	....	Paid from Navy Votes.



HER MAJESTY'S	GOVERNMENT.— <i>Con.</i>	Attorney General .....	7,000 0 0	....	In addition to fees.
Russell, Sir Charles ..	Hackney, South ....	First Commissioner of Works, &c. ....	2,000 0 0	....	....
Shaw-Lefevre, Right Hon. G. J.	Bradford, Central...	Secretary for Scotland.....	2,000 0 0	....	....
Trevelyan, Right Hon. Sir G. O., Bart.	Glasgow, Bridgeton..	Financial Secretary, War Office. ....	....	....	Paid from Army Votes.
Woodall, W. ....	Hanley .....	Chairman of Ways and Means, House of Commons .....	2,500 0 0	....	....
Mellor, Rt. Hon. J. W.	York, West Riding, Sowerby.	Speaker, House of Commons.	5,000 0 0	....	....
Peel, Right Hon. A. W.	Warwick and Leamington.				

*Note.*—Counsel retained by the Government are, in some instances, Members of Parliament, but as they hold no permanent appointment they are not included in the Return.

PENSIONS for SERVICES paid from Consolidated Fund or Civil Service Votes:

Hamilton, Right Hon. Lord George F.	Middlesex, Ealing....	Pension for Political Services.	2,000 0 0	....
Hicks-Beach, Rt. Hon. Sir M., Bart.	Bristol, West.....	Pension for Political Services.	1,200 0 0	....
Russell, Sir George, Bart.	Berks, Wokingham...	Pension as late County Court Judge. ....	1,000 0 0	....
Villiers, Rt. Hon. C.P.	Wolverhampton., South	Pension for Political Services.	1,200 0 0	....

*Note.*—The Chancellor of the Duchy of Lancaster is paid from the funds of the Duchy, and thus does not fall within the Return.

# ARMY COLONELS.

RETURN of Names of all Officers holding the Rank of HONORARY COLONEL in the ARMY who are in receipt of the  
PAY attached to that Rank. (From Official sources.)

## I.—CAVALRY AND INFANTRY.

Rank and Name.	Regiment.	Pay.
		£
General His Highness Prince W. A. E. of Saxe-Weimar, K P., G.C.B..	1st Life Guards	1,800 a year.
General R. W. P. Earl Howe, C.B.	2nd Life Guards	1,800 "
Lieut. General J. R. S. Sayer, C.B.	1st Dragoon Guards	1,185 "
Lieut. General and Hon. General Sir C. P. B. Walker, K.C.B.	2nd Dragoon Guards	1,185 "
General Sir E. C. Hodge, G.C.B.	4th Dragoon Guards	1,350 "
Major General and Hon. Lieut. General the Hon. S. J. G. Calthorpe.	5th Dragoon Guards	1,000 "
Lieut. General and Hon. General G. C. Clarke, C.B.	2nd Dragoons	1,000 "
General A. Low, C.B.	4th Hussars	1,185 "
Lieut. General and Hon. General Sir C. C. Shute, K.C.B.	6th Dragoons	1,185 "
Major General and Hon. Lieut. General W. T. Dickson	7th Hussars	1,000 "
Lieut. General Sir C. C. Fraser, V.C., K.C.B.	8th Hussars	1,000 "
Major General and Hon. Lieut. General W. Drysdale, K.C.B.	9th Lancers	1,000 "
Field Marshal His Royal Highness Albert Edward Prince of Wales and Duke of Cornwall, K.G., K.T., K.P., G.C.B., G.C.S.I., G.C.M.G., G.C.I.E., A.D.C.	10th Hussars	1,350 "
Lieut. General and Hon. General W. C. Forrest, C.B.	11th Hussars	1,185 "
Lieut. General and Hon. General W. H. Seymour, C.B.	13th Hussars	1,185 "
Lieut. General and Hon. General C. W. Thompson	14th Hussars	1,185 "
Lieut. General Sir F. W. J. Fitz Wygram, Bart.	15th Hussars	1,185 "
Lieut. General and Hon. General C. J. Foster, K.C.B.	16th Lancers	1,185 "
Major General and Hon. Lieut. General C. S. Hutchinson	19th Hussars	1,000 "
Major General and Hon. Lieut. General Sir R. W. H. Palmer, Bart.	20th Hussars	1,000 "

Field Marshal His Royal Highness the Duke of Cambridge, K.G., K.T.,  
K.P., G.C.B., G.C.S.I., G.C.M.G., G.C.I.E., A.D.C., Commander in Chief...

General H. P. Raymond .....  
Lieut. General and Hon. General J. A. R. Raines, K.C.B. ....  
General the Hon. Sir F. Colborne, K.C.B. ....  
General Sir R. Wilbraham, K.C.B. ....  
General Sir A. Borton, G.C.B., G.C.M.G. ....  
General J. M. Percival, C.B. ....  
General Lord M. Kerr, G.C.B. ....  
General A. T. Heyland, C.B. ....  
Major General and Hon. Lieut. General J. C. Guise, V.C., C.B. ....  
General Sir F. Horn, G.C.B. ....  
General Sir W. M. S. McMurdo, G.C.B. ....  
General C. Crutcheley .....  
General W. C. E. Napier .....  
General G. H. MacKinnon, C.B. ....  
Lieut. General J. N. Sargeant, C.B. ..  
Lieut. General and Hon. General J. W. S. Smith, C.B. ....  
Lieut. General and Hon. General Sir W. Parke, K.C.B. ....  
General the Right. Hon. Sir E. Lugard, G.C.B. ....  
General J. T. Hill .....  
General W. N. Hutchinson .....  
General Sir R. D. Kelly, K.C.B. ....  
General Sir H. C. B. Daubeney, G.C.B. ....  
Lieut. General and Hon. General C. Elmhirst, C.B. ....  
Lieut. General and Hon. General the Hon. Sir St. G. G. Foley, K.C.B. ....  
Major General and Hon. Lieut. General R. J. Eagar, C.B. ....  
Major General and Hon. Lieut. General A. H. L. Fox-Pitt-Rivers  
General D. E. Mackirdy .....  
General the Hon. R. Rolls, C.B. ....  
General the Hon. Sir A. A. Spencer, G.C.B. ....

Grenadier Guards .....

£2,200 a year, pay  
as Colonel of  
the Grenadier  
Guards, is inclu-  
ded in a consoli-  
dated rate of pay  
of £6,631. 14s. 2d.  
a year.

The Royal Scots ..... 1,000 a year.  
East Kent Regiment ..... 1,000 "  
Royal Warwickshire Regiment ..... 1,000 "  
Royal Fusiliers ..... 1,000 "  
Norfolk Regiment ..... 1,000 "  
Suffolk Regiment ..... 1,000 "  
Somersetshire Light Infantry ..... 1,000 "  
West Yorkshire Regiment ..... 1,000 "  
Leicestershire Regiment ..... 1,000 "  
Lancashire Fusiliers ..... 1,000 "  
Cheshire Regiment ..... 1,000 "  
Royal Welsh Fusiliers ..... 1,000 "  
King's Own Scottish Borderers ..... 1,000 "  
Scottish Rifles ..... 1,000 "  
1st Battalion Royal Inniskilling Fusiliers ..... 1,000 "  
Gloucestershire Regiment ..... 1,000 "  
Worcestershire Regiment ..... 1,000 "  
East Surrey Regiment ..... 1,000 "  
Duke of Cornwall Light Infantry ..... 1,000 "  
West Riding Regiment ..... 1,000 "  
1st Battalion Border Regiment ..... 1,000 "  
2nd Battalion Border Regiment ..... 1,000 "  
1st Batt. South Staffordshire Regiment ..... 1,000 "  
2nd Batt. South Staffordshire Regiment ..... 1,000 "  
Dorsetshire Regiment ..... 1,000 "  
South Lancashire Regiment ..... 1,000 "  
Welsh Regiment ..... 1,000 "  
Royal Highlanders ..... 1,000 "  
Oxfordshire Light Infantry ..... 1,000 "

# ARMY COLONELS.

RETURN of Names of all Officers holding the Rank of HONORARY COLONEL in the ARMY who are in receipt of the PAY attached to that Rank. (From Official sources.)

CAVALRY AND INFANTRY.—Continued.

Rank and Name.	Regiment.	Pay.
General Sir C. W. D. Staveley, G.C.B.	Essex Regiment	£1,000 a year.
General Sir D. Lysons, G.C.B. (Constable of the Tower of London)	Derbyshire Regiment	1,000 "
General R. T. Farren, K.C.B.	1st Batt. Loyal North Lancashire Regt.	1,000 "
General H. Renny, C.S.I.	2nd Batt Loyal North Lancashire Regt.	1,000 "
General W. A. McCleverty	Northamptonshire Regiment	1,000 "
General Sir H. P. de Batho, Bart.	Shropshire Light Infantry	1,000 "
General Sir E. A. Holdich, K.C.B.	Middlesex Regiment	1,000 "
General Sir H. J. Warre, K.C.B.	Wiltshire Regiment	1,000 "
General C. A. Lewis	North Staffordshire Regiment	1,000 "
Major General and Hon. General J. H. C. Robertson	York and Lancaster Regiment	1,000 "
General Sir J. J. Bisset, K.C.M.G., C.B.	Durham Light Infantry	This officer was granted £1,000 a year, £500 of which he commuted for £3,434 5s., on 27th Aug., 1883.
General W. D. P. Patton-Bethune	Highland Light Infantry	1,000 a year.
General Sir E. S. Smyth, K.C.M.G.	Seaforth Highlanders	1,000 "
General Sir J. A. Ewart, K.C.B.	Gordon Highlanders	1,000 "
General Sir R. C. H. Taylor, K.C.B.	Cameron Highlanders	1,000 "
General A. H. Ferryman, C.B.	Royal Irish Fusiliers	1,000 "
General Sir P. L. MacDougall, K.C.M.G.	Leinster Regiment	1,000 "

## II.—COLONELS COMMANDANT, ROYAL ARTILLERY.

Rank and Name.	Pay.
General R. F. Copland-Crawford .....	£ 994 a year.
General Sir D. E. Wood, G.C.B. ....	994 "
General Sir J. W. Fitzmayer, K.C.B. ....	1,082 "
Lieut. General and Hon. General Sir C. L. D'Aguilar, G.C.B. ....	994 "
General Sir J. M. Adye, G.C.B. ....	994 "
Lieut. General and Hon. General Sir F. A. Campbell, K.C.B. ....	994 "
Lieut. General and Hon. General H. L. Gardiner, C.B. ....	994 "
General Sir M. A. S. Biddulph, K.C.B. ....	994 "
Major General and Hon. Lieut. General R. P. Radcliffe, ....	994 "
Lieut. General and Hon. General Sir D. M. Fraser, K.C.B. ....	994 "
Major General and Hon. Lieut. General G. V. Johnson .....	994 "

## III.—COLONELS COMMANDANT, ROYAL ENGINEERS.

Rank and Name.	Pay.
Lieut. General and Hon. General R. G. Hamilton .....	£ 990 a year.
Lieut. General and Hon. General W. C. Hadden .....	990 "
Lieut. General and Hon. General Sir J. S. Hawkins, K.C.M.G. ....	990 "
Lieut. General and Hon. General H. W. Montagu, C.B. ....	990 "
General J. F. M. Browne, C.B. ....	990 "
Major General and Hon. Lieut. General Sir W. F. D. Jervois, G.C.M.G., C.B. ....	990 "

# NATIONAL INCOME AND EXPENDITURE.

An Account of the Public Income and Expenditure of the United Kingdom of Great Britain and Ireland in the Year ended March 31, 1893, prepared in compliance with Section 4 of the Sinking Fund Act, 1875 (38 and 39 Viet. c. 45).

## INCOME.

	£	s.	d.
Customs .....	19,715,000	0	0
Excise .....	25,360,000	0	0
Stamps (excluding Fee, &c., Stamps) .....	13,805,000	0	0
Land Tax and House Duty ..	2,450,000	0	0
Property and Income Tax ....	13,470,000	0	0
Post Office .....	10,400,000	0	0
Telegraph Service .....	2,480,000	0	0
Crown Lands (Net) .....	430,000	0	0
Interest on Advances .....	220,396	4	6
Miscellaneous— £ s. d.			
Allowance out of the Profits of Issue received from the Bank of England, per Act 24 Viet. c. 3 .....	168,040	0	0
Mint, Seigniorage on Silver, &c., 291,188 5 10			
Net Profit, Post Office and Trustees			
Savings Banks 56,182 19 8			
Fee, &c., Stamps 832,567 11 3			
Other Miscellaneous Receipts 717,001 15 10			
	2,064,980	12	7

Total Income.....£90,395,376 17 1

## EXPENDITURE.

### CONSOLIDATED FUND SERVICES.

NATIONAL DEBT SERVICES—			
Inside the Permanent or Fixed Annual Charge.			
Funded Debt—	£	s.	d.
Interest and Management .....	16,238,028	5	4
Terminable Annuities (including Trustee Savings Banks Deficiency Annuity) ..	6,350,400	12	1
Interest on Unfunded Debt .....	659,826	2	10
New Sinking Fund .....	1,751,744	19	9
	25,000,000	0	0
Outside the Permanent or Fixed Annual Charge.			
Principal and Interest on Suez Canal Exchequer Bonds ....	200,000	0	0
NAVAL DEFENCE FUND ANNUITY .....	1,428,571	8	6
OTHER CONSOLIDATED FUND SERVICES—			
Civil List .....	£407,953	17	3
Annuities and Pensions .....	334,538	10	10
Salaries and Allowances .....	83,671	11	3
Courts of Justice .....	517,942	17	6
Miscellaneous Charges .....	333,496	11	10
	1,677,603	8	8

### SUPPLY SERVICES.

Army .....	17,541,700	0	0
Ordnance Factories .....	300	0	0
Navy .....	14,302,000	0	0
Civil Services .....	17,780,514	15	2
Customs and Inland Revenue Departments.	2,615,595	2	9
Post Office .....	6,513,000	0	0
Telegraph Service .....	2,595,000	0	0
Packet Service .....	721,080	11	10
	62,069,190	9	9

Total Expenditure ..... 90,375,365 6 11  
Excess of Income over Expenditure in the Year ended  
March 31, 1893 ..... 20,011 10 2

£90,395,376 17 1

## IMPORT DUTIES IN THE UNITED KINGDOM.

*TABLE showing the several ARTICLES subject to IMPORT DUTIES in the UNITED KINGDOM, and the RATE of DUTY levied upon each ARTICLE, according to the TARIFF in operation during the year 1892-93.*

ARTICLES.		Rates of Duty.		
		£	s.	d.
COCOA.....	per lb.	0	0	1
Husks and Shells .....	per cwt.	0	2	0
Cocoa or Chocolate, ground, prepared, or in any way manufactured .....	per lb.	0	0	2
Do. in the manufacture of which Spirit has been used .....	addit'nal per lb. }	0	0	0½
COFFEE .....	per cwt.	0	14	0
Kiln-dried, roasted, or ground.....	per lb.	0	0	2
CHICORY :—				
Raw or kiln-dried .....	per cwt.	0	13	3
Roasted or ground ....	per lb.	0	0	2
Chicory (or other vegetable substances) and Coffee, roasted and ground; mixed.....	„	0	0	2
FRUIT—Dried:—				
Currants .....	per cwt.	0	2	0
Figs and Fig Cake, Plums, Prunes, and Raisins.....	„	0	7	0
TEA.....	per lb.	0	0	4
TOBACCO—Manufactured :—				
Cigars.....	„	0	5	0
Cavendish or Negro-head.....	„	0	4	6
Cavendish or Negro-head Manufactured in Bond ....	„	0	4	0
Other Manufactured Tobacco .....	„	0	4	0
Snuff containing more than 13lbs. of moisture in every 100lbs. weight thereof .....	„	0	3	9
Snuff not containing more than 13lbs. of moisture in every 100lbs. weight thereof.....	„	0	4	6
TOBACCO—Unmanufactured :—				
Containing 10lbs. or more of moisture in every 100lbs. weight thereof .....	„	0	3	2
Containing less than 10lbs. of moisture in every 100lbs. weight thereof .....	„	0	3	6
WINE :—				
Not exceeding 30° of Proof Spirit.....	per gallon.	0	1	0
Exceeding 30° but not exceeding 42° of Proof Spirit ..	„	0	2	6
And for every degree or part of a degree beyond the highest above charged, an additional duty .....	„	0	0	3
The word “degree” does not include fractions of the next higher degree.				
Wine includes Lees of Wine.				

## IMPORT DUTIES IN THE UNITED KINGDOM.

ARTICLES.		Rates of Duty.		
		£	s.	d.
WINE—Sparkling Wine imported in Bottles:—				
If proved not to exceed 15s. a gallon market value (to 11th April, 1892) .....	per gallon.	0	1	0
If exceeding 15s. a gallon market value (to 11th April, 1892) .....	"	0	2	6
For all values (on and after 12th April, 1892) .....	"	0	2	0
<i>The Duties on Sparkling Wines are in addition to the Duties in respect of alcoholic strength.</i>				
BEER of the descriptions called Mum, Spruce, or Black Beer, and Berlin White Beer, and other preparations, whether fermented or not fermented, of a character similar to Mum, Spruce, or Black Beer, where the worts thereof were, before fermentation, of a specific gravity—				
Not exceeding 1,215° .....	per every 36 galls. }	1	6	0
Exceeding 1,215° .....	"	1	10	6
Beer of any other description where the worts thereof were, before fermentation, of a special gravity of 1.055° .....	"	0	6	6
And so on in proportion for any difference in gravity.				
SPIRITS OR STRONG WATERS:—				
For every gallon, computed at hydrometer proof, of Spirits of any description (except Perfumed Spirits), including Naphtha or Methylic Alcohol, purified so as to be potable, and mixtures and preparations containing Spirits .....	per proof gallon. }	0	10	4 and 6d. additional.
For every gallon of Perfumed Spirits .....	per gallon. }	0	16	6 and 9d. additional.
Liqueurs, Cordials, or other preparations containing Spirits, in Bottle, entered in such a manner as to indicate that the strength is not to be tested ....	" }	0	14	0 and 8d. additional.
And so on in proportion for any less quantity. )				
Chloroform .....	per lb.	0	3	1
Chloral Hydrate .....	"	0	1	3
Collodion .....	per gallon.	1	5	0
Confectionery, in the manufacture of which Spirit has been used (the Duty being in addition to any other existing Duty to which such Confectionery is at present liable) .....	per lb.	0	0	0½
Ether, Acetic .....	"	0	1	10
Ether, Butyric .....	per gallon.	0	15	8
Ether, Sulphuric .....	"	1	6	2
Ethyl, Iodide of .....	"	0	13	7
And so in proportion for any less quantity.				
Soap, Transparent, in the manufacture of which Spirit has been used .....	per lb.	0	0	3
CARDS, Playing .....	per doz. packs. }	0	3	9



# INCOME TAX RATES FROM ITS FIRST IMPOSITION IN 1842 TO THE PRESENT TIME.

From and to April 5th.	Income free under.	On £100 to £150.	On £100 and upw'ds.	Chancellor of the Exchequer.	Premier.
	£	Rate in the £			
1842 to 1846	150	—	7d.	Henry Goulburn.	Sir Robert Peel.
1846 „ 1852	Do.	—	7d.	Sir Charles Wood.	Lord John Russell.
1852 „ 1853	Do.	—	7d.	Benjamin Disraeli.	Earl of Derby.
1853 „ 1854	100	5d.	7d.	William E. Gladstone.	Earl of Aberdeen.
1854 „ 1855	Do.	10d.	1s. 2d.	Do.	Do.
1855 „ 1857	Do.	11½d.	1s. 4d.	Sir G. Cornwall Lewis	Viscount Palmerston.
1857 „ 1858	Do.	5d.	7d.	Do.	Do.
1858 „ 1859	Do.	5d.	5d.	Do.	Do.
1859 „ 1860	Do.	6½d.	9d.	Benjamin Disraeli.	Earl of Derby.
1860 „ 1861	Do.	7d.	10d.	William E. Gladstone.	Viscount Palmerston.
1861 „ 1863	*100	6d.	9d.	Do.	Do.
1863 „ 1864	Do.	7d.		Do.	Do.
1864 „ 1865	Do.	6d.		Do.	Do.
1865 „ 1866	Do.	4d.		Do.	Do.
1866 „ 1867	Do.	4d.		Do.	Earl Russell.
1867 „ 1868	Do.	5d.		Benjamin Disraeli.	Earl of Derby.
1868 „ 1869	Do.	6d.		George Ward Hunt.	Benjamin Disraeli.
1869 „ 1870	Do.	5d.		Robert Lowe.	William E. Gladstone.
1870 „ 1871	Do.	4d.		Do.	Do.
1871 „ 1872	Do.	6d.		Do.	Do.
1872 „ 1873	Do.	4d.		Do.	Do.
1873 „ 1874	Do.	3d.		Do.	Do.
1874 „ 1876	Do.	2d.		Sir Stafford Northcote.	Benjamin Disraeli.
1876 „ 1878	†150	3d.		Do.	Earl of Beaconsfield.
1878 „ 1880	Do.	5d.		Do.	Do.
1880 „ 1881	Do.	6d.		William E. Gladstone.	William E. Gladstone.
1881 „ 1882	Do.	5d.		Do.	Do.
1882 „ 1883	Do.	6½d.		Do.	Do.
1883 „ 1884	Do.	5d.		Hugh C. E. Childers.	Do.
1884 „ 1885	Do.	6d.		Do.	Do.
1885 „ 1886	Do.	8d.		Sir M. Hicks-Beach.	Marquis of Salisbury.
1886 „ } 1887	(Do.	8d.		Sir William Harcourt.	William E. Gladstone.
1886 „ }	(Do.	8d.		Ld. Randolph Churchill.	Marquis of Salisbury.
1887 „ 1888	Do.	7d.		G. J. Goschen.	Do.
1888 „ 1889	Do.	6d.		Do.	Do.
1889 „ 1890	Do.	6d.		Do.	Do.
1890 „ 1891	Do.	6d.		Do.	Do.
1891 „ 1892	Do.	6d.		Do.	Do.
1892 „ 1893	Do.	6d.		Sir W. Harcourt.	William E. Gladstone.
1893 „ 1894	Do.	7d.		Do.	Do.

\* Differential rate upon scale of incomes abolished. Incomes under £100 are exempt; and incomes of £100 and under £199 per annum have an abatement from the assessment of £60:—thus, £100 pays on £40; £160 upon £100; £199 upon £139; but £200 pays on £200.

† Under £150 exempt; if under £400 the tax is not chargeable upon the first £120.

AVERAGE PRICE PER £100 of the THREE PER CENT CONSOLIDATED STOCK of the PUBLIC FUNDS of the UNITED KINGDOM, in EACH MONTH in EACH YEAR from 1877 to 1888, and of the NEW TWO-AND-THREE-QUARTER PER CENT CONSOLIDATED STOCK MONTHLY from MARCH, 1888, to DECEMBER, 1892.

MONTHS.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	New $\frac{3}{4}$ per cent Consolidated Stock.				1892.
												1888.	1889.	1890.	1891.	
January. . .	£ 95 $\frac{1}{2}$	£ 95 $\frac{3}{4}$	£ 95 $\frac{3}{4}$	£ 97 $\frac{3}{4}$	£ 98 $\frac{5}{8}$	£ 99 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 99 $\frac{3}{4}$	£ 99 $\frac{3}{4}$	£ 100 $\frac{3}{4}$	£ ..	£ 98 $\frac{1}{2}$	£ 97 $\frac{1}{2}$	£ 96 $\frac{3}{4}$	£ 95 $\frac{3}{4}$
February. . .	£ 95 $\frac{1}{2}$	£ 95 $\frac{3}{4}$	£ 96 $\frac{1}{2}$	£ 98 $\frac{1}{2}$	£ 98 $\frac{1}{2}$	£ 99 $\frac{1}{2}$	£ 102 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 99 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ ..	£ 99	£ 97 $\frac{3}{4}$	£ 97 $\frac{3}{4}$	£ 95 $\frac{3}{4}$
March. . . . .	£ 96 $\frac{1}{2}$	£ 95 $\frac{1}{2}$	£ 96 $\frac{3}{4}$	£ 97 $\frac{3}{4}$	£ 99 $\frac{3}{4}$	£ 100 $\frac{1}{2}$	£ 102 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 97 $\frac{3}{4}$	£ 100 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 100 $\frac{5}{8}$	£ 97 $\frac{3}{4}$	£ 97 $\frac{1}{2}$	£ 97 $\frac{1}{2}$	£ 95 $\frac{3}{4}$
April. . . . .	£ 95 $\frac{3}{4}$	£ 94 $\frac{1}{2}$	£ 98 $\frac{1}{2}$	£ 98 $\frac{3}{4}$	£ 100 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 102 $\frac{1}{2}$	£ 102 $\frac{1}{2}$	£ 96 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 102 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 98 $\frac{1}{2}$	£ 98	£ 96 $\frac{1}{2}$	£ 96 $\frac{5}{8}$
May. . . . .	£ 94 $\frac{1}{2}$	£ 96 $\frac{3}{4}$	£ 98 $\frac{3}{4}$	£ 99 $\frac{1}{2}$	£ 102 $\frac{1}{2}$	£ 102	£ 101 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 99 $\frac{1}{2}$	£ 101 $\frac{3}{4}$	£ 103 $\frac{1}{4}$	£ 99 $\frac{1}{2}$	£ 99	£ 98 $\frac{3}{4}$	£ 95 $\frac{1}{2}$	£ 97 $\frac{1}{2}$
June. . . . .	£ 94 $\frac{1}{2}$	£ 95 $\frac{3}{4}$	£ 97 $\frac{1}{2}$	£ 98 $\frac{3}{4}$	£ 100 $\frac{3}{4}$	£ 100 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 99 $\frac{3}{4}$	£ 100 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 99 $\frac{9}{16}$	£ 98 $\frac{3}{4}$	£ 97 $\frac{1}{2}$	£ 95 $\frac{1}{2}$	£ 96 $\frac{3}{4}$
July. . . . .	£ 94 $\frac{1}{2}$	£ 95 $\frac{1}{2}$	£ 97 $\frac{1}{2}$	£ 98 $\frac{3}{4}$	£ 101 $\frac{1}{2}$	£ 99 $\frac{1}{2}$	£ 99 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 99 $\frac{3}{4}$	£ 101 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 99 $\frac{9}{16}$	£ 98 $\frac{3}{4}$	£ 96 $\frac{1}{2}$	£ 95 $\frac{3}{4}$	£ 96 $\frac{1}{2}$
August. . . . .	£ 95 $\frac{1}{2}$	£ 94 $\frac{1}{2}$	£ 97 $\frac{3}{4}$	£ 97 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 99 $\frac{3}{4}$	£ 100 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 100	£ 101 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 99 $\frac{3}{4}$	£ 98 $\frac{1}{2}$	£ 96 $\frac{1}{2}$	£ 96	£ 97 $\frac{1}{2}$
September. . .	£ 95 $\frac{1}{2}$	£ 94 $\frac{1}{2}$	£ 97 $\frac{3}{4}$	£ 97 $\frac{1}{2}$	£ 99 $\frac{1}{2}$	£ 99 $\frac{3}{4}$	£ 101 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 98	£ 97	£ 95 $\frac{3}{4}$	£ 94 $\frac{1}{2}$	£ 97
October. . . . .	£ 95 $\frac{3}{4}$	£ 94 $\frac{1}{2}$	£ 98	£ 98 $\frac{1}{2}$	£ 98 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 102 $\frac{1}{2}$	£ 97 $\frac{1}{2}$	£ 97	£ 94 $\frac{3}{4}$	£ 94 $\frac{3}{4}$	£ 97
November. . . .	£ 96 $\frac{1}{2}$	£ 95 $\frac{1}{2}$	£ 98 $\frac{1}{2}$	£ 99 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 102 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 103 $\frac{1}{2}$	£ 97	£ 97	£ 94 $\frac{3}{4}$	£ 95	£ 97 $\frac{1}{2}$
December. . . .	£ 95 $\frac{1}{2}$	£ 94 $\frac{3}{4}$	£ 97 $\frac{3}{4}$	£ 98 $\frac{3}{4}$	£ 99 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 100 $\frac{1}{2}$	£ 99 $\frac{1}{2}$	£ 100	£ 100 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ 96 $\frac{1}{2}$	£ 97 $\frac{1}{2}$	£ 95 $\frac{3}{4}$	£ 95 $\frac{1}{2}$	£ 97 $\frac{3}{4}$
Average for the year. . .	£ 95 $\frac{3}{4}$	£ 95 $\frac{3}{4}$	£ 97 $\frac{1}{2}$	£ 98 $\frac{3}{4}$	£ 100	£ 100 $\frac{1}{2}$	£ 101 $\frac{3}{8}$	£ 101	£ 99 $\frac{3}{4}$	£ 100 $\frac{1}{2}$	£ 101 $\frac{1}{2}$	£ ..	£ 98	£ 96 $\frac{1}{2}$	£ 95 $\frac{3}{4}$	£ 96 $\frac{1}{2}$

AVERAGE MINIMUM RATE PER CENT OF DISCOUNT CHARGED *by the BANK OF ENGLAND, in EACH MONTH*  
*in EACH YEAR from 1877 to 1892.*

MONTHS.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	MONTHS.
Jan.....	2	3 $\frac{1}{2}$	4 $\frac{1}{2}$	3	3 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{3}{4}$	3	5	3 $\frac{3}{4}$	5	3 $\frac{3}{4}$	4 $\frac{1}{10}$	6	4	3 $\frac{1}{2}$	Jan.
Feb.....	2	2	3	3	3 $\frac{1}{2}$	5 $\frac{1}{2}$	3 $\frac{3}{4}$	3 $\frac{1}{2}$	5	2 $\frac{1}{2}$	4	2 $\frac{3}{4}$	3	5 $\frac{1}{2}$	3	3	Feb.
March....	2	2 $\frac{3}{4}$	2 $\frac{3}{4}$	3	3	4	3	3 $\frac{3}{4}$	3 $\frac{3}{4}$	2	3 $\frac{1}{2}$	2 $\frac{3}{4}$	3	4 $\frac{1}{2}$	3	3	March.
April ....	2	3	2 $\frac{3}{4}$	3	3	3	3	2 $\frac{1}{2}$	3 $\frac{1}{2}$	2	2 $\frac{3}{4}$	2	2 $\frac{3}{4}$	3 $\frac{3}{4}$	3 $\frac{1}{2}$	2 $\frac{1}{2}$	April.
May.....	2 $\frac{3}{4}$	3	2	3	2 $\frac{1}{2}$	3	3 $\frac{1}{4}$	2 $\frac{1}{2}$	2 $\frac{3}{4}$	2 $\frac{1}{2}$	2	2 $\frac{3}{4}$	2 $\frac{1}{2}$	3	4 $\frac{1}{2}$	2	May.
June.....	3	2 $\frac{1}{2}$	2	2 $\frac{3}{4}$	2 $\frac{1}{2}$	3	4	2 $\frac{1}{2}$	2	2 $\frac{3}{4}$	2	2 $\frac{1}{2}$	2 $\frac{1}{2}$	3 $\frac{1}{2}$	3 $\frac{3}{4}$	2	June.
July.....	2 $\frac{1}{2}$	3 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2 $\frac{1}{2}$	3	4	2	2	2 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2 $\frac{1}{2}$	4	2 $\frac{1}{2}$	2	July.
August...	2 $\frac{3}{4}$	4 $\frac{3}{8}$	2	2 $\frac{1}{2}$	2 $\frac{1}{2}$	3 $\frac{1}{2}$	4	2	2	2 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{1}{2}$	3	4 $\frac{3}{8}$	2 $\frac{1}{2}$	2	August.
Sept.....	3	5	2	2 $\frac{1}{2}$	4	4 $\frac{7}{8}$	3 $\frac{3}{8}$	2	2	3 $\frac{1}{2}$	4	3 $\frac{3}{4}$	4 $\frac{1}{10}$	4 $\frac{1}{2}$	2 $\frac{3}{4}$	2	Sept.
October..	4 $\frac{1}{2}$	5 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3 $\frac{3}{8}$	5	3	2 $\frac{3}{8}$	2	3 $\frac{3}{4}$	4	5	5	5	3	2 $\frac{3}{8}$	October.
Nov.....	4 $\frac{3}{8}$	5 $\frac{5}{8}$	2 $\frac{3}{4}$	2 $\frac{1}{2}$	5	5	3	4 $\frac{3}{8}$	2 $\frac{3}{8}$	4	4	5	5	5 $\frac{1}{2}$	4	3	Nov.
Dec.....	4	5	3	2 $\frac{3}{4}$	5	5	3	5	3 $\frac{3}{4}$	4 $\frac{1}{2}$	4	5	5	5 $\frac{1}{10}$	3 $\frac{3}{4}$	3	Dec.
Average for the year...)	2 $\frac{3}{4}$	3 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	3 $\frac{1}{2}$	4 $\frac{3}{8}$	3 $\frac{3}{8}$	2 $\frac{1}{2}$	3	3	3 $\frac{1}{2}$	3 $\frac{1}{2}$	3 $\frac{1}{2}$	4 $\frac{1}{2}$	3 $\frac{1}{2}$	2 $\frac{1}{2}$	Average for the year.)

## DEALINGS WITH LAND.

SCALE OF LAW COSTS ON THE SALE, PURCHASE, OR MORTGAGE OF  
REAL PROPERTY, HOUSES, OR LAND.

	For the 1st £1,000.	For the 2nd and 3rd £1,000.	For the 4th and each subsequent £1,000 up to £10,000.	For each subsequent £1,000 up to £100,000.*
	Per £100. £ s. d.	Per £100. £ s. d.	Per £100. £ s. d.	Per £100. £ s. d.
Vendor's solicitor for negotiating a sale of property by private contract .....	1 0 0	1 0 0	0 10 0	0 5 0
Do., do., for conducting a sale of pro- perty by public auction, including the conditions of sale—				
When the property is sold .....	1 0 0	0 10 0	0 5 0	0 2 6
When the property is not sold, then on the reserve price† .....	0 10 0	0 5 0	0 2 6	0 1 3
Do., do., for deducing title to freehold, copyhold, or leasehold property, and perusing and completing conveyance (including preparation of contract, or conditions of sale, if any) .....	1 10 0	1 0 0	0 10 0	0 5 0
Purchaser's solicitor for negotiating a pur- chase of property by private contract ..	1 0 0	1 0 0	0 10 0	0 5 0
Do., do., for investigating title to free- hold, copyhold, or leasehold property, and preparing and completing con- veyance (including perusal and com- pletion of contract, if any) .....	1 10 0	1 0 0	0 10 0	0 5 0
Mortgagor's solicitor for deducing title to freehold, copyhold, or leasehold property, perusing mortgage, and completing ....	1 10 0	1 0 0	0 10 0	0 5 0
Mortgagee's solicitor for negotiating loan.	1 0 0	1 0 0	0 5 0	0 2 6
Do., do., for investigating title to freehold, copyhold, or leasehold property; and preparing and completing mortgage...	1 10 0	1 0 0	0 10 0	0 5 0

Vendor's or mortgagor's solicitor for procuring execution and acknowledgment  
of deed by a married woman, £2. 10s. extra.

Where the prescribed remuneration would amount to less than £5 the prescribed  
remuneration is £5, except on transactions under £100, in which case the remunera-  
tion of the solicitor for the vendor, purchaser, mortgagor, or mortgagee, is £3.

\* Every transaction exceeding £100,000 to be charged for as if it were for £100,000.

† A minimum charge of £5 to be made whether a sale is effected or not.

## DEALINGS WITH LAND.

*Scale of Law Costs as to Leases, or Agreements for Leases, at Rack Rent (other than a Mining Lease, or a Lease for Building Purposes, or Agreement for the same).*

LESSOR'S SOLICITOR FOR PREPARING, SETTLING, AND COMPLETING  
LEASE AND COUNTERPART.

Where the rent does not exceed £100, £7. 10s. per cent on the rental, but not less in any case than £5.

Where the rent exceeds £100, and does not exceed £500, £7. 10s. in respect of the first £100 of rent, and £2. 10s. in respect of each subsequent £100 of rent.

Where the rent exceeds £500, £7. 10s. in respect of the first £100 of rent, £2. 10s. in respect of each £100 of rent up to £500, and £1 in respect of every subsequent £100.

Lessee's solicitor for perusing draft and completing—one-half of the amount payable to the lessor's solicitor.

*Scale of Law Costs as to Conveyances in Fee, or for any other Freehold Estate reserving rent, or Building Leases reserving rent, or other Long Leases not at Rack Rent (except Mining Leases), or Agreements for the same respectively.*

VENDOR'S OR LESSOR'S SOLICITOR FOR PREPARING, SETTLING, AND COM-  
PLETING CONVEYANCE AND DUPLICATE, OR LEASE AND COUNTERPART.

Amount of Annual Rent.	Amount of Remuneration.
Where it does not exceed £5 ..	£5.
Where it exceeds £5, and does not exceed £50 .....	The same payment as on a rent of £5, and also 20 per cent on the excess beyond £5.
Where it exceeds £50, but does not exceed £150 .....	The same payment as on a rent of £50, and 10 per cent on the excess beyond £50.
Where it exceeds £150 .....	The same payment as on a rent of £150, and 5 per cent on the excess beyond £150.

Where a varying rent is payable the amount of annual rent is to mean the largest amount of annual rent.

Purchaser's or lessee's solicitor for perusing draft and completing—one-half of the amount payable to the vendor's or lessor's solicitor.

## THE DEATH DUTIES.

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### PROBATE AND ACCOUNT DUTY.

THIS duty is now regulated by 44 Vict., cap. 12 (1881), and 52 Vict., cap. 7, and is payable on personal estate on the Affidavits for Probate and Letters of Administration; and also on the accounts which have to be rendered in special cases of benefits accruing to anyone by reason of the death of another person.

The rates of duty are as follow:—

Under £100 no duty.

Where value exceeds £100 and not £500, £1 for each £50, or fraction of £50.

“ “ £500 „ £1,000, £1. 5s. “ “ “

“ “ £1,000, £3 for each £100, or fraction of £100.

Where the gross value of an estate does not exceed £300, a fixed duty of 30s. only is payable to cover all duties.

In the case of persons dying domiciled in the United Kingdom, debts and funeral expenses are deducted before calculating the duty except where the value of the whole personal estate does not exceed £300.

### ESTATE DUTY.

This duty was created and is regulated by 52 Vict., cap. 7, and is payable in respect of personal and real estate.

With regard to personal estate, the duty is payable where on application for probate or administration granted on or after 1st June, 1889, the value of the estate and effects in respect whereof probate duty is charged exceeds £10,000, or where the value of personal or movable property included in an account delivered on or after 1st June, 1889, exceeds £10,000.

With regard to real estate, the duty is payable where the value of any succession upon the death of any person dying on or after 1st June, 1889, exceeds £10,000, and where the value of any succession to real property under the will or intestacy of any person so dying does not exceed £10,000, but such value together with the value of any other benefit taken by the successor under such will or intestacy exceeds £10,000.

The rate of duty payable is £1 for each £100 or a fraction of £100 of value of the estate and effects, or of the personal or movable property, or of the succession, as the case may be.

## THE DEATH DUTIES.

## LEGACY DUTY.

This duty is regulated by 55 Geo. iii., cap. 184, and 51 Vict., cap. 8, and is payable in respect of personal estate.

The rates of duty are as follows:—

DESCRIPTION OF LEGATEE.	If payable out of Real Estate, and the deceased died before 1st July, 1888, or out of Personal Estate whenever deceased died.	If payable out of Real Estate, and the deceased died on or after 1st July, 1888.
Children of the deceased and their descendants, or the father or mother or any lineal ancestor of the deceased, or the husbands or wives of any such persons .....	£1 per cent.	£1. 10s. per cent.
Brothers and sisters of the deceased and their descendants, or the husbands or wives of any such persons .....	£3 „	£4. 10s. „
Brothers and sisters of the father or mother of the deceased and their descendants, or the husbands or wives of any such persons .....	£5 „	£6. 10s. „
Brothers and sisters of a grandfather or grandmother of the deceased and their descendants, or the husbands or wives of any such persons .....	£6 „	£7. 10s. „
Any person in any other degree of collateral consanguinity, or strangers in blood to the deceased .....	£10 „	£11. 10s. „

## SUCCESSION DUTY.

This duty is regulated by 16 and 17 Vict., cap. 51, and 51 Vict., cap. 8, and is payable in respect of real estate, including leaseholds.

The rates of duty are as follows:—

DESCRIPTION OF SUCCESSOR.	Where the deceased died before the 1st July, 1888.	Where the deceased died on or after the 1st July, 1888.
Lineal issue or lineal ancestor of the predecessor, or the husband or wife of any such person .....	£1 per cent.	£1. 10s. per cent.
Brothers and sisters of the predecessor and their descendants, or the husbands or wives of any such persons ..	£3 „	£4. 10s. „
Brothers and sisters of the father or mother of the predecessor and their descendants, or the husbands or wives of any such persons .....	£5 „	£6. 10s. „
Brothers and sisters of a grandfather or grandmother of the predecessor and their descendants, or the husbands or wives of any such persons .....	£6 „	£7. 10s. „
Persons of more remote consanguinity, or strangers in blood .....	£10 „	£11. 10s. „

## THE DEATH DUTIES.

The husband or wife of deceased is exempt from legacy or succession duty.

Legacy duty is payable on the capital value.

Succession duty is paid on the value of an annuity equal to the net income of the property, which annuity would continue during the life of the successor.

Where the whole personal estate does not exceed £300 no legacy duty is payable.

All pecuniary legacies, residues, or share of residue, although not of the amount of £20, are subject to duty.

In case of persons dying leaving issue, the probate duty covers all legacy duty which would formerly have been paid by such issue.

Where the principal value of the whole succession or successions does not exceed £100 no succession duty is payable.

Persons domiciled in the United Kingdom pay legacy duty on all movable property wherever situate.

Persons domiciled abroad are altogether exempt from legacy duty on movable property.

By the Customs and Inland Revenue Act, 1885 (48 and 49 Vict., c. 51), a yearly duty of 5 per cent is to be levied upon the net annual value, income or profits, of the real and personal property of any body, corporate or incorporate. But there are a number of exemptions, the most important of which are:—Property belonging to the counties and certain other public bodies, charities, friendly societies, savings banks, and trading concerns.

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‘THE INTESSTATES’ ESTATES ACT, 1890,

PROVIDES that when a man dies after the first of September, 1890, leaving a widow but no issue, if the net value of his real and personal estate does not exceed £500 all shall belong to the widow. If the estate exceeds £500 the widow is to have a charge on it for that amount, with interest at 4 per cent until payment. This Act does not apply to Scotland.



# RULES BY WHICH THE PERSONAL ESTATES OF PERSONS DYING INTESTATE ARE DISTRIBUTED.

## *If the Intestate die, leaving*

## *His representatives take in the proportion following:—*

Wife and child, or children .....	One-third to wife, rest to child or children; and if children are dead, then to the representatives (that is, their lineal descendants), except such child or children, not heirs-at-law, who had estate by settlement of intestate, or were advanced by him in his lifetime, equal to other shares.
¶ Wife only, no relations .....	Half to wife, rest to Crown.
¶ Wife, no near relations .....	Half to wife, rest to next-of-kin in equal degree to intestate, or their legal representatives.
No wife or child .....	All to next-of-kin and their legal representatives
No wife, but child, children, or representatives of them, whether such child or children by one or more wives .....	All to him, her, or them.
Children by two wives .....	Equally to all.
If no child, children, or representatives of them .....	All to next-of-kin in equal degree to intestate.
Child, and grandchild by deceased child .....	Half to child, half to grandchild, who takes by representation.
Husband .....	Whole to him.
Father, and brother or sister .....	Whole to father.
Mother, and brother or sister .....	Whole to them equally.
¶ Wife, mother, brothers, sisters, and nieces (daughters of deceased brother or sister) .....	Half to wife, residue to mother, brothers, sisters, and nieces.
¶ Wife, and father .....	Half to wife, and half to father.
¶ Wife, brothers or sisters, and mother .....	Half to wife, half to brothers or sisters, and mother
Mother, but no wife, child, father, brother, sister, nephew, or niece .....	The whole to mother.
¶ Wife, and mother .....	Half to wife, half to mother.
Brother or sister of whole blood, and brother or sister of half blood .....	Equally to both.
Posthumous brother or sister, and mother ...	Equally to both.
Posthumous brother or sister, and brother or sister born in lifetime of father .....	Equally to both.
Father's father, and mother's mother .....	Equally to both.
Uncle or aunt's children, and brother's or sister's grandchildren .....	Equally to all.
Grandmother, uncle, or aunt .....	All to grandmother.
Two aunts, nephew, and niece .....	Equally to all.
Uncle, and deceased uncle's child .....	All to uncle.
Uncle by mother's side, and deceased uncle or aunt's child .....	All to uncle.
Nephew by brother, and nephew by half-sister .....	Equally <i>per capita</i> .*
Nephew by deceased brother, and nephews and nieces by deceased sister .....	Each in equal shares <i>per capita</i> , and not <i>per stirpes</i> .
Brother and grandfather .....	Whole to brother.
Brother's grandson, and brother or sister's daughter .....	All to brother or sister's daughter.
Brother and two aunts .....	All to brother.
¶ Brother, and wife .....	Half to brother, half to wife.
¶ Wife, mother, and children of a deceased brother (or sister) .....	{ Half to wife, a fourth to mother, and a fourth <i>per stirpes</i> to deceased brother's or sister's children.
¶ Wife, brother, or sister, and children of a deceased brother or sister .....	{ Half to wife, one-fourth to brother or sister, one-fourth to deceased brother's or sister's children <i>per stirpes</i> .
Brother or sister, and children of a deceased brother or sister .....	{ Half to brother or sister, half to children of deceased brother or sister <i>per stirpes</i> .
Grandfather, no nearer relation .....	All to grandfather.

\* That is, taking individually, and not by representation. Thus, if A die, leaving three brothers or sisters, they each take an equal part of his effects in his or her own right. But if either of them die, leaving children, his children would take his share *per stirpes*, that is *through him*, and not in their own rights.

By the Act 19 & 20 Vict., cap. 94, all special local customs relating to the estates of intestates are abolished so far as they affect personal property.

¶ See Intestates' Estates Act, 1890, on previous page.

RULES OF DIVISION, ACCORDING TO THE LAW OF SCOTLAND,  
OF THE MOVABLE ESTATE OF A PERSON WHO  
HAS DIED INTTESTATE.

*If a person die, leaving*

*His movable estate is divided in the  
following proportions :—*

Wife .....	{ Half to wife, other half to deceased's next-of-kin.
Wife and child, or children .....	{ One-third to wife, remaining two-thirds to child, or among children equally.
Wife and children, and issue of predeceasing children .....	{ One-third to wife, one-third to children equally, and the remaining third between the children and the issue of the predeceasing children—the children taking <i>per capita</i> , the latter <i>per stirpes</i> .*
Wife and grandchildren .....	{ Half to wife, and half to grandchildren equally among them.
Wife, and his children by former marriages ....	{ One-third to wife, two-thirds to children equally.
Wife, and her children by last and prior marriages	{ One-third to wife, remaining two-thirds to deceased's children.
Children .....	Whole to children.
Children, and issue of predeceasing children ..	{ Half to children, remaining half between children <i>per capita</i> , and issue <i>per stirpes</i> .
Grandchildren .....	Equally to all.
Children by two or more marriages .....	Equally to all.
Father .....	Whole to father.
Mother .....	{ One-third to mother, other two-thirds to next-of-kin.
Father and mother .....	Whole to father.
Father and mother, and brothers and sisters ..	{ Half to father, half to brothers and sisters equally.
Mother, and brothers and sisters .....	{ One-third to mother, remaining two-thirds to brothers and sisters.
Father, mother, brothers, or sisters, and issue of deceased brothers or sisters .....	{ Half to father, half to brothers and sisters <i>per capita</i> , and issue <i>per stirpes</i> .
Mother, brothers, or sisters, and issue of deceased brothers or sisters .....	{ One-third to mother, remaining two-thirds as in last example.
Father and mother, and their grandchildren ....	{ Half to father, other half to grandchildren equally.
Mother, and her grandchildren .....	{ One-third to mother, other two-thirds to grandchildren equally.
Father, mother, children, and grandchildren of deceased brothers or sisters .....	{ Half to father, other half between children <i>per capita</i> , and grandchildren <i>per stirpes</i> .
Mother, children, and grandchildren of deceased brothers or sisters .....	{ One-third to mother, other two-thirds among children <i>per capita</i> , and grandchildren <i>per stirpes</i> .
Brothers or sisters .....	Equally among them.
Brothers or sisters, and nephews or nieces ....	{ Brothers or sisters <i>per capita</i> , nephews or nieces <i>per stirpes</i> .
Nephews and nieces .....	Equally.
Grandnephews or nieces .....	Equally.

RULES OF DIVISION, ACCORDING TO THE LAW OF SCOTLAND,  
OF THE MOVABLE ESTATE OF A PERSON WHO  
HAS DIED INTTESTATE.—CON.

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*If a person die, leaving*

*His movable estate is divided in the  
following proportions :—*

Brothers or sisters of full blood, and brothers or sisters of half-blood .....	Whole to brothers and sisters of full blood.
Brothers or sisters consanguinean (that is, by same father but not same mother), and brothers or sisters uterine (that is, by same mother but not by same father) .....	Whole to brothers and sisters consanguinean.
Brothers or sisters consanguinean, and uncles or aunts .....	Whole to brothers and sisters.
Brothers and sisters uterine, and uncles or aunts .....	Half to brothers and sisters, other half to uncles and aunts.
Father, mother, and uncles and aunts .....	Whole to father.
Father, and cousins of full blood .....	Whole to father.
Mother, and uncles or aunts .....	One-third to mother, two thirds to uncles and aunts.
Mother, and cousins of full blood .....	One-third to mother, two-thirds to cousins equally.
Grandfather, and uncles and aunts .....	Whole to uncles and aunts.
Grandfather, grandmother, and mother .....	One-third to mother, two-thirds to grandfather.

*Where a wife dies, survived by*

*Her movable estate is divided in the  
following proportions :—*

Husband .....	Half to husband, other half to next-of-kin.
Husband and children .....	One-third to husband, rest to children.
Children only .....	Whole to children.
Children, and issue of deceased children .....	Half to children, other half among children <i>per capita</i> , and issue <i>per stirpes</i> .
Children by two or more marriages .....	Equally to all.

Illegitimate children do not succeed to their father and mother, when the latter leave no will in their favour. When an illegitimate child dies without a will, and leaves neither wife nor children, his estate falls to the Crown.

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\* *Per capita*, i.e., by the head; *per stirpes* (by descent), i.e., through their parent and not in their own right. Where property divides *per capita*, it is divided into as many shares as there are children; where *per stirpes*, the share which would have fallen to the predeceasing parent if alive is divided equally among his children.

## EXPECTATION OF LIFE.

EXPECTATION OF LIFE TABLES were constructed by the late Dr. Farr, of the General Register Office, and were calculated on the death-rates of 1838-54; but since that time very important changes have occurred in the death-rates at different ages; and consequently new tables have been constructed by Dr. W. Ogle, who succeeded Dr. Farr, on the basis of the death-rates of 1871-80. The following table gives the results both of the older and the later calculations; the first two columns in the male and female parts, respectively giving the survivors at each year of life out of a million born of the corresponding sex, by the older and the newer calculation; and the two other columns giving similarly the expectation of life at each year.

AGE.	MALES.				FEMALES.				AGE.
	OF 1,000,000 BORN, THE NUMBER SURVIVING AT THE END OF EACH YEAR OF LIFE.		MEAN AFTER-LIFETIME (EXPECTATION OF LIFE).		OF 1,000,000 BORN, THE NUMBER SURVIVING AT THE END OF EACH YEAR OF LIFE.		MEAN AFTER-LIFETIME (EXPECTATION OF LIFE).		
	1838-54.	1871-80.	1838-54.	1871-80.	1838-54.	1871-80.	1838-54.	1871-80.	
Col'mn	1	2	3	4	5	6	7	8	Col'mn
0	1,000,000	1,000,000	39.91	41.35	1,000,000	1,000,000	41.85	44.62	0
1	836,405	841,417	46.65	48.05	865,288	871,266	47.31	50.14	1
2	782,626	790,201	48.83	50.14	811,711	820,480	49.40	52.22	2
3	754,849	763,737	49.61	50.86	782,990	793,359	50.20	52.99	3
4	736,845	746,567	49.81	51.01	764,060	775,427	50.43	53.20	4
5	723,716	734,068	49.71	50.87	750,550	762,622	50.33	53.08	5
6	713,881	726,815	49.39	50.38	740,584	755,713	50.00	52.56	6
7	706,156	721,103	48.92	49.77	732,771	750,276	49.53	51.94	7
8	699,688	716,309	48.37	49.10	726,116	745,631	48.98	51.26	8
9	694,346	712,387	47.74	48.37	720,537	741,727	48.35	50.53	9
10	689,857	708,990	47.05	47.60	715,769	738,382	47.67	49.76	10
11	685,982	706,146	46.31	46.79	711,581	735,405	46.95	48.96	11
12	682,512	703,595	45.54	45.96	707,770	732,697	46.20	48.13	12
13	679,256	701,300	44.76	45.11	704,155	730,122	45.44	47.30	13
14	676,057	698,840	43.97	44.26	700,581	727,571	44.66	46.47	14
15	672,776	696,419	43.18	43.41	696,917	724,956	43.90	45.63	15
16	669,296	693,695	42.40	42.58	693,050	722,084	43.14	44.81	16
17	665,529	690,746	41.64	41.76	688,894	718,993	42.40	44.00	17
18	661,402	687,507	40.90	40.96	684,378	715,632	41.67	43.21	18
19	656,868	683,941	40.17	40.17	679,463	711,946	40.97	42.43	19
20	651,903	680,033	39.48	39.40	674,119	707,949	40.29	41.66	20
21	646,502	675,769	38.80	38.64	668,345	703,616	39.63	40.92	21
22	641,028	671,344	38.13	37.89	662,474	699,141	38.98	40.18	22
23	635,486	666,754	37.46	37.15	656,509	694,521	38.33	39.44	23
24	629,882	661,997	36.79	36.41	650,463	689,759	37.68	38.71	24
25	624,221	657,077	36.12	35.68	644,342	684,858	37.04	37.98	25
26	618,503	651,998	35.44	34.96	638,148	679,822	36.39	37.26	26
27	612,731	646,757	34.77	34.24	631,891	674,661	35.75	36.54	27
28	606,906	641,353	34.10	33.52	625,575	669,372	35.10	35.83	28
29	601,026	635,778	33.43	32.81	619,201	663,959	34.46	35.11	29
30	595,089	630,033	32.76	32.10	612,774	658,418	33.81	34.41	30
31	589,094	624,124	32.09	31.40	606,296	652,747	33.17	33.70	31
32	583,036	618,156	31.42	30.71	599,769	646,957	32.53	33.00	32
33	576,912	611,827	30.74	30.01	593,196	641,045	31.88	32.30	33
34	570,716	605,430	30.07	29.33	586,575	635,003	31.23	31.60	34
35	564,441	598,860	29.40	28.64	579,908	628,842	30.59	30.90	35
36	558,083	592,107	28.73	27.96	573,192	622,554	29.94	30.21	36
37	551,634	585,167	28.06	27.29	566,431	616,144	29.29	29.52	37
38	545,084	578,019	27.39	26.62	559,619	609,599	28.64	28.83	38
39	538,428	570,656	26.72	25.96	552,758	602,924	27.99	28.15	39
40	531,657	563,077	26.06	25.30	545,844	596,113	27.34	27.46	40
41	524,761	555,254	25.39	24.65	538,876	589,167	26.69	26.78	41
42	517,734	547,288	24.73	24.00	531,849	582,104	26.03	26.10	42
43	510,567	539,161	24.07	23.35	524,765	574,919	25.38	25.42	43
44	503,247	530,858	23.41	22.71	517,617	567,612	24.72	24.74	44

## EXPECTATION OF LIFE.

AGE.	MALES.				FEMALES.				AGE.
	OF 1,000,000 BORN. THE NUMBER SURVIVING AT THE END OF EACH YEAR OF LIFE.		MEAN AFTER-LIFETIME (EXPECTATION OF LIFE).		OF 1,000,000 BORN. THE NUMBER SURVIVING AT THE END OF EACH YEAR OF LIFE.		MEAN AFTER-LIFETIME (EXPECTATION OF LIFE).		
	1888-54.	1871-80.	1888-54.	1871-80.	1888-54.	1871-80.	1888-54.	1871-80.	
Col'mn	1	2	3	4	5	6	7	8	Col'mn
45	495,770	522,374	22.76	22.07	510,403	560,174	24.06	24.06	45
46	488,126	513,702	22.11	21.44	503,122	552,602	23.40	23.88	46
47	480,308	504,836	21.46	20.80	495,768	544,892	22.74	22.71	47
48	472,306	495,761	20.82	20.18	488,339	537,048	22.08	22.03	48
49	464,114	486,479	20.17	19.55	480,833	529,048	21.42	21.36	49
50	455,727	476,980	19.54	18.93	473,245	520,901	20.75	20.68	50
51	447,139	467,254	18.90	18.31	465,572	512,607	20.09	20.01	51
52	438,099	457,022	18.28	17.71	457,814	504,188	19.42	19.34	52
53	428,801	446,510	17.67	17.12	449,966	495,645	18.75	18.66	53
54	419,256	435,729	17.06	16.53	442,027	486,973	18.08	17.98	54
55	409,460	424,677	16.45	15.95	433,331	477,440	17.43	17.33	55
56	399,408	413,351	15.86	15.37	424,230	467,443	16.79	16.69	56
57	389,088	401,740	15.26	14.80	414,761	456,992	16.17	16.06	57
58	378,481	389,837	14.64	14.24	404,895	446,079	15.55	15.45	58
59	367,570	377,591	14.10	13.68	394,636	434,695	14.94	14.84	59
60	356,390	365,011	13.53	13.14	383,974	422,835	14.34	14.24	60
61	344,744	352,071	12.96	12.60	372,895	410,477	13.75	13.65	61
62	332,789	338,820	12.41	12.07	361,387	397,644	13.17	13.08	62
63	320,451	325,256	11.87	11.56	349,436	384,319	12.60	12.51	63
64	307,720	311,368	11.34	11.05	337,031	370,495	12.05	11.96	64
65	294,548	297,156	10.82	10.55	324,165	356,165	11.51	11.42	65
66	281,064	282,638	10.32	10.07	310,833	341,326	10.98	10.90	66
67	267,160	267,29	9.83	9.60	297,048	325,988	10.47	10.39	67
68	252,901	252,763	9.36	9.14	282,819	310,170	9.97	9.89	68
69	238,323	237,487	8.90	8.70	268,177	293,599	9.48	9.41	69
70	223,490	222,056	8.45	8.27	253,161	277,225	9.02	8.95	70
71	208,453	206,539	8.03	7.85	237,822	260,207	8.57	8.50	71
72	193,297	190,971	7.62	7.45	222,230	242,934	8.13	8.07	72
73	178,114	175,419	7.22	7.07	206,464	225,497	7.71	7.65	73
74	163,003	160,074	6.85	6.70	190,620	208,003	7.31	7.25	74
75	148,076	144,060	6.49	6.34	174,800	190,566	6.93	6.87	75
76	133,453	130,227	6.15	6.00	159,126	173,316	6.56	6.51	76
77	119,251	115,966	5.82	5.68	143,722	156,392	6.21	6.16	77
78	105,592	102,359	5.51	5.37	128,711	139,927	5.88	5.82	78
79	92,587	89,449	5.21	5.07	114,229	124,065	5.56	5.50	79
80	80,343	77,354	4.93	4.79	100,394	108,935	5.26	5.20	80
81	68,946	66,153	4.66	4.51	87,323	94,662	4.98	4.90	81
82	58,471	55,842	4.41	4.26	75,119	81,305	4.71	4.63	82
83	48,970	46,489	4.17	4.01	63,862	68,966	4.45	4.37	83
84	40,471	38,132	3.95	3.78	53,615	57,723	4.21	4.12	84
85	32,979	30,785	3.73	3.56	44,419	47,631	3.98	3.88	85
86	26,476	24,496	3.53	3.36	36,284	38,710	3.76	3.66	86
87	20,926	19,054	3.34	3.17	29,202	30,958	3.56	3.46	87
88	16,268	14,576	3.16	2.99	23,135	24,338	3.36	3.26	88
89	12,428	10,926	3.00	2.82	18,027	18,788	3.18	3.08	89
90	9,821	8,015	2.84	2.66	13,802	14,225	3.01	2.90	90
91	6,859	5,748	2.69	2.51	10,376	10,553	2.85	2.74	91
92	4,946	4,025	2.55	2.37	7,650	7,658	2.70	2.58	92
93	3,492	2,749	2.41	2.24	5,526	5,429	2.55	2.44	93
94	2,411	1,828	2.29	2.12	3,908	3,756	2.42	2.30	94
95	1,628	1,183	2.17	2.01	2,704	2,533	2.29	2.17	95
96	1,071	742	2.06	1.90	1,827	1,661	2.17	2.11	96
97	688	452	1.95	1.81	1,204	1,057	2.06	2.03	97
98	430	266	1.85	1.72	774	653	1.96	1.83	98
99	262	151	1.76	1.65	483	389	1.86	1.73	99
100	154	82	1.68	1.61	295	225	1.76	1.62	100

## THE QUEEN AND ROYAL FAMILY.

**THE QUEEN.**—VICTORIA, of the United Kingdom of Great Britain and Ireland, &c., Queen, Defender of the Faith. Her Majesty was born at Kensington Palace, May 24, 1819; succeeded to the throne; June 20, 1837, on the death of her uncle, King William IV.; was crowned June 28, 1838; and married, February 10, 1840, to his Royal Highness Prince Albert. Her Majesty is the only child of his late Royal Highness Edward, Duke of Kent, son of King George III. The children of Her Majesty are :—

1. Her Royal Highness Victoria Adelaide Mary Louisa, PRINCESS ROYAL OF ENGLAND AND PRUSSIA, born November 21, 1840, and married to his Royal Highness Frederick Wilhelm, the Crown Prince of Germany, January 25, 1858, afterwards the Emperor of Germany, died June 15, 1888, and has issue, living, two sons and four daughters.

2. His Royal Highness Albert Edward, PRINCE OF WALES, born November 9, 1841, married, March 10, 1863, Alexandra of Denmark (Princess of Wales), born December 1, 1844, and has issue, Prince Albert Victor, born January 8, 1864, died January 14, 1892; George Frederick Ernest Albert, born June 3, 1865; Louisa Victoria Alexandra Dagmar, born February 20, 1867, married, July 27, 1889, Alexander William George, Duke of Fife; Victoria Alexandra Olga Mary, born July 6, 1868; Maud Charlotte Mary Victoria, born November 26, 1869; and Alexander John Charles Albert, born April 6, 1871, died April 7, 1871.

3. Her Royal Highness Alice Maud Mary, born April 25, 1843; died December 14, 1878; married his Royal Highness Prince Frederick Louis of Hesse, July 1, 1862; had issue five daughters and two sons; the second son died by an accident, May, 1873; the youngest daughter died November 15, 1878.

4. His Royal Highness Alfred Ernest Albert, Duke of Edinburgh, born August 6, 1844; married the Grand Duchess Marie of Russia, January 23, 1874; and has had issue a son, born October 15, 1874, and four daughters, born October 29, 1875, November 25, 1876, September 1, 1878, and March, 1884.

5. Her Royal Highness Helena Augusta Victoria, born May 25, 1846; married to his Royal Highness Prince Frederick Christian Charles Augustus of Schleswig-Holstein Sonderburg-Augustenburg, July 5, 1866; and has issue living one son and two daughters.

6. Her Royal Highness Louise Caroline Alberta, born March 18, 1848; married to the Marquis of Lorne, eldest son of the Duke of Argyll, March 21, 1871.

7. His Royal Highness Arthur William Patrick Albert, Duke of Connaught, born May 1, 1850; married Princess Louise Margaret of Prussia, March 13, 1879; issue, a daughter, born January 15, 1882; a son, born January 13, 1883; and a daughter, born March 17, 1886.

8. His Royal Highness Leopold George Duncan Albert, Duke of Albany, born April 7, 1853; married, April 27, 1882, Princess Helen of Waldeck; died March 28, 1884; issue, a daughter, born February 26, 1883, and a son, born July 19, 1884.

9. Her Royal Highness Beatrice Mary Victoria Feodora, born April 14, 1857; married, July 23, 1885, to Prince Henry of Battenberg; issue, three sons and a daughter.

## THE GLADSTONE MINISTRY, 1892.

Prime Minister, First Lord of the Treasury, and Lord Privy Seal....	Rt. Hon. W. E. GLADSTONE.
Lord Chancellor .....	LORD HERSCHELL.
Secretary for India and Lord President of the Council .....	The EARL of KIMBERLEY.
Chancellor of the Exchequer .....	Rt. Hon. Sir WILLIAM HARCOURT.
Home Secretary .....	Rt. Hon. H. H. ASQUITH, Q.C.
Secretary for Foreign Affairs .....	The EARL of ROSEBERY.
Secretary for the Colonies.....	The MARQUIS of RIPON.
Secretary for War .....	Rt. Hon. H. CAMPBELL-BANNERMAN.
Secretary for Scotland .....	Sir GEORGE TREVELYAN.
First Lord of the Admiralty.....	EARL SPENCER.
Chief Secretary for Ireland .....	Rt. Hon. JOHN MORLEY.
Postmaster-General .....	Rt. Hon. ARNOLD MORLEY.
President of the Board of Trade .....	Rt. Hon. A. J. MUNDELLA.
Chancellor of the Duchy of Lancaster ..	Rt. Hon. JAMES BRYCE.
President of the Local Government Board.....	Rt. Hon. HENRY H. FOWLER.
Vice-President of the Council .....	Rt. Hon. ARTHUR H. D. ACLAND.
First Commissioner of Works .....	Rt. Hon. G. SHAW-LEFEVRE.

*The above form the Cabinet.*

Lord Lieutenant of Ireland ....	LORD HOUGHTON.
Lord Chancellor of Ireland .....	SAMUEL WALKER, Q.C.
Junior Lords of the Treasury .....	{ WILLIAM A. MCARTHUR. R. K. CAUSTON. THOMAS E. ELLIS.
Financial Secretary to the Treasury ....	Rt. Hon. JOHN T. HIBBERT.
Patronage Secretary to the Treasury ....	Rt. Hon. E. MARJORIBANKS.
Under Secretary for the Home Department .....	Rt. Hon. HERBERT GLADSTONE.
Under Secretary for Foreign Affairs ....	Sir EDWARD GREY.
Under Secretary for the Colonies .....	SIDNEY C. BUXTON.
Under Secretary for India .....	G. W. E. RUSSELL.
Parliamentary Secretary of the Board of Trade .....	THOMAS BURT.
Parliamentary Secretary of the Local Government Board .....	Sir WALTER FOSTER.
President of the Board of Agriculture....	Rt. Hon. HERBERT C. GARDNER.

## THE GLADSTONE MINISTRY, 1892—*Continued.*

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Attorney-General.....	Sir CHARLES RUSSELL, Q.C.
Solicitor-General .....	J. C. RIGBY, Q.C.
Lord Advocate .....	J. B. BALFOUR, Q.C.
Solicitor-General for Scotland .....	A. ASHER, Q.C.
Attorney-General for Ireland .....	The MACDERMOT, Q.C.
Solicitor-General for Ireland .....	SERJEANT HEMPHILL.
Vice-Chamberlain of the Household ....	The Hon. C. R. SPENCER.
Comptroller of the Household .....	The Hon. G. LEVESON-GOWER.
Secretary to the Admiralty .....	Sir U. KAY-SHUTTLEWORTH.
Under Secretary for the War Office ....	LORD SANDHURST.
Financial Secretary to the War Office ..	WILLIAM WOODALL.
Lord Chamberlain .....	LORD CARRINGTON.

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## PRIME MINISTERS SINCE 1834.

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Sir Robert Peel .....	December 15, 1834	Earl of Derby.....	July 8, 1866
Viscount Melbourne .....	April 18, 1835	Mr. Disraeli..	March to December, 1868
Sir Robert Peel .....	August 31, 1841	Mr. Gladstone .....	December 9, 1868
Lord John Russell.....	July 6, 1846	Earl Beaconsfield ..	February 21, 1874
Earl of Derby .....	February 27, 1852	Mr. Gladstone .....	April 29, 1880
Earl of Aberdeen ..	December 28, 1852	and Ch. of Ex. to April, 1883.	
Viscount Palmerston.	February 26, 1855	Marquis of Salisbury .....	June 24, 1885
Earl of Derby .....	February 26, 1858	Mr. Gladstone .....	February 2, 1886
Viscount Palmerston .....	June 18, 1859	Marquis of Salisbury ..	August 3, 1886
Earl Russell .....	October 28, 1865	Mr. Gladstone .....	August 15, 1892

Nineteen changes of Governments have taken place since the beginning of 1834, but in that time only nine men have been Premiers, and of these Mr. Gladstone and the Marquis of Salisbury are the sole survivors. Mr. Gladstone has been Premier longer than any other statesman since the Earl of Liverpool, who held office nearly fifteen years in succession.

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In 1885 the number of members of the Lower House was finally fixed at 670, as against 658 in previous years; England returning 465, Wales 30, Scotland 72, and Ireland 103 members. The previous distribution had been—England 469, Wales 30, Scotland 60, and Ireland 103 seats. There are now 377 county members, as against 283; 284 borough members, as against 360; and 9 University members, as against 9.



THE  
HOUSE OF COMMONS AS ELECTED JULY, 1892.

WITH CORRECTIONS TO DECEMBER, 1893.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Peon'lite	
<b>BEDFORD (3).</b>								
<i>County Divisions (2).</i>								
Biggleswade, or N....	G. W. E. Russell .....	1	..	..	..	..	..	64,457
Luton, or S. ....	H. Whitebread .....	1	..	..	..	..	..	68,249
		2	..	..	..	..	..	132,706
<i>Borough (1).</i>								
Bedford .....	S. Whitbread .....	1	..	..	..	..	..	28,023
		3	..	..	..	..	..	160,729
<b>BERKS. (5).</b>								
<i>County Divisions (3).</i>								
Abingdon, or N.....	P. Wroughton .....	..	..	1	..	..	..	49,077
Newbury, or S. ....	W. G. Mount .....	..	..	1	..	..	..	55,846
Wokingham, or E....	Sir George Russell.....	..	..	1	..	..	..	59,104
		..	..	3	..	..	..	164,027
<i>Boroughs (2).</i>								
Reading .....	G. W. Palmer.....	1	..	..	..	..	..	55,752
Windsor (New) .....	F. T. Barry .....	..	..	1	..	..	..	12,327
		1	..	4	..	..	..	232,106
<b>BUCKS. (3).</b>								
<i>County Divisions (3).</i>								
Aylesbury, or M. ....	Baron F. de Rothschild ..	..	..	..	1	..	..	58,510
Buckingham, or N. ..	H. S. Leon .....	1	..	..	..	..	..	57,389
Wycombe, or S.....	Viscount Curzon .....	..	..	1	..	..	..	66,792
		1	..	1	1	..	..	182,691
<b>CAMBRIDGE (4).</b>								
<i>County Divisions (3).</i>								
Chesterton, or W.....	Hugh E. Hoare .....	1	..	..	..	..	..	46,041
Newmarket, or E.....	G. Newnes .....	1	..	..	..	..	..	48,878
Wisbeach, or N.....	Hon. A. G. Brand .....	1	..	..	..	..	..	49,556
		3	..	..	..	..	..	144,475
<i>Borough (1).</i>								
Cambridge .....	R. U. P. Fitzgerald .....	..	..	1	..	..	..	44,387
		3	..	1	..	..	..	188,862

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranilitie	
<b>CHESTER (13).</b>								
<i>County Divisions (8).</i>								
Altrincham.....	C. R. Disraeli .....	..	..	1	..	..	..	63,390
Crewe .....	W. S. B. Mc.Laren .....	1	..	..	..	..	..	64,434
Eddisbury .....	H. J. Tollemache .....	..	..	1	..	..	..	55,249
Hyde .....	J. W. Sidebotham .....	..	..	1	..	..	..	57,468
Knutsford .....	Hon. A. de T. Egerton.....	..	..	1	..	..	..	55,073
Macclesfield .....	Bromley Davenport .....	..	..	1	..	..	..	53,147
Northwich .....	J. T. Brunner .....	1	..	..	..	..	..	69,893
Wirrall .....	Colonel Cotton-Jodrell ....	..	..	1	..	..	..	73,725
		2	..	6	..	..	..	492,379
<i>Boroughs (5).</i>								
Birkenhead.....	Viscount Bury .....	..	..	1	..	..	..	99,249
Chester .....	R. A. Yerburgh .....	..	..	1	..	..	..	42,295
Stalybridge .....	T. H. Sidebottom .....	..	..	1	..	..	..	44,135
Stockport (2) .....	G. Whiteley.....	1	..	1	..	..	..	70,253
	J. Leigh .....			..	..	..	..	
		3	..	10	..	..	..	748,311
<b>CORNWALL (7).</b>								
<i>County Divisions (6).</i>								
Bodmin, or S.E. ....	Rt. Hon. L. H. Courtney..	..	..	..	1	..	..	52,386
Camborne, or N.W. ...	C. A. V. Conybeare .....	1	..	..	..	..	..	54,192
Launceston, or N.E. ...	T. Owen .....	1	..	..	..	..	..	48,086
St. Austell, or M. ....	W. A. Mc.Arthur .....	1	..	..	..	..	..	49,517
St. Ives, or W. ....	T. B. Bolitho .....	..	..	..	1	..	..	50,160
Truro .....	J. C. Williams.....	..	..	..	1	..	..	50,715
		3	..	..	3	..	..	305,056
<i>Borough (1).</i>								
Penryn and Falmouth	W. G. C. Bentinck.....	..	..	1	..	..	..	17,533
		3	..	1	3	..	..	322,589
<b>CUMBERLAND (6).</b>								
<i>County Divisions (4).</i>								
Cockermouth .....	Sir Wilfrid Lawson .....	1	..	..	..	..	..	63,592
Egremont, or W. ....	D. Ainsworth .....	1	..	..	..	..	..	53,629
Eskdale, or N. ....	R. A. Allison .....	1	..	..	..	..	..	45,300
Penrith, or M. ....	J. W. Lowther .....	..	..	1	..	..	..	45,636
		3	..	1	..	..	..	208,157
<i>Boroughs (2).</i>								
Carlisle .....	W. C. Gully, Q.C.....	1	..	..	..	..	..	39,176
Whitehaven .....	T. Shepherd Little.....	1	..	..	..	..	..	19,217
		5	..	1	..	..	..	266,550

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parnellite	
<b>DERBY (9).</b>								
<i>County Divisions (7).</i>								
Chesterfield .....	T. Bayley.....	1	..	..	..	..	..	61,294
High Peak .....	Captain Sidebottom .....	..	..	1	..	..	..	60,740
Ilkeston .....	Sir W. B. Foster .....	1	..	..	..	..	..	69,192
Mid .....	J. A. Jacoby .....	1	..	..	..	..	..	59,716
North-Eastern .....	T. D. Bolton .....	1	..	..	..	..	..	61,995
Southern .....	H. E. Broad .....	1	..	..	..	..	..	63,816
Western .....	V. C. Cavendish .....	..	..	..	1	..	..	56,987
		5	..	1	1	..	..	433,740
<i>Boroughs (2).</i>								
Derby (2) .....	Rt. Hon. Sir W. Harcourt	1	..	..	..	..	..	94,146
	T. Roe .....	1	..	..	..	..	..	
			7	..	1	1	..	..
<b>DEVON (13).</b>								
<i>County Divisions (8).</i>								
Ashburton, or M. ..	C. Seal Hayne .....	1	..	..	..	..	..	53,005
Barnstaple, or N.W...	A. Billson.....	1	..	..	..	..	..	61,349
Honiton, or E. ....	Sir J. Kennaway .....	..	..	1	..	..	..	52,025
South Molton, or N...	G. Lambert.....	1	..	..	..	..	..	46,718
Tavistock, or W. ....	H. C. F. Luttrell .....	1	..	..	..	..	..	50,715
Tiverton, or N.E. ....	Sir W. Walrond .....	..	..	1	..	..	..	52,762
Torquay .....	R. Mallock .....	..	..	1	..	..	..	57,463
Totnes, or S. ....	F. B. Mildmay .....	..	..	..	1	..	..	49,615
		4	..	3	1	..	..	423,652
<i>Boroughs (5).</i>								
Devonport (2) .....	Hudson Kearley.....	1	..	..	..	..	..	70,238
	E. J. C. Morton .....	1	..	..	..	..	..	
Exeter .....	Hon. Sir H. S. Northcote..	..	..	1	..	..	..	50,570
Plymouth (2) .....	Sir E. Clarke .....	..	..	1	..	..	..	87,307
	Sir W. Pearce.....	..	..	1	..	..	..	
		6	..	6	1	..	..	631,767
<b>DORSET (4).</b>								
<i>County Divisions (4).</i>								
Eastern .....	Hon. H. Sturt .....	..	..	1	..	..	..	57,202
Northern .....	J. K. Wingfield Digby ....	..	..	1	..	..	..	45,740
Southern .....	W. E. Brymer .....	..	..	1	..	..	..	49,897
Western .....	H. Farquharson .....	..	..	1	..	..	..	41,648
		..	..	4	..	..	..	194,487

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paran'ite	
<b>DURHAM (16).</b>								
<i>County Divisions (8).</i>								
Barnard Castle .....	Sir J. W. Peace .....	1	.	..	..	..	..	59,459
Bishop Auckland ..	J. M. Paulton .....	1	..	..	..	..	..	61,833
Chester-le-Street ....	J. Joicey ..	1	..	..	..	..	..	70,206
Houghton-le-Spring ..	Captain H. T. Fenwick ..	1	..	..	..	..	..	69,235
Jarrow .....	Sir C. M. Palmer .....	1	..	..	..	..	..	80,532
Mid .....	J. Wilson .....	..	1	..	..	..	..	67,635
North-Western .....	Atherley Jones .....	1	..	..	..	..	..	65,987
South-Eastern .....	J. Richardson .....	1	..	..	..	..	..	63,830
		7	1	..	..	..	..	538,717
<i>Boroughs (8).</i>								
Darlington.....	Theodore Fry .....	1	..	..	..	..	..	38,030
Durham .....	M. A. Fowler .....	1	..	..	..	..	..	15,287
Gateshead .....	William Allan.....	1	..	..	..	..	..	85,712
Hartlepool .....	C. Furness .....	1	..	..	..	..	..	64,914
South Shields.....	J. C. Stevenson .....	1	..	..	..	..	..	78,431
Stockton .....	T. Wrightson .....	..	..	1	..	..	..	68,895
Sunderland (2) ....	S. Storey .....	1	..	..	..	..	..	142,097
	Colonel Gourley .....	1	..	..	..	..	..	
		14	1	1	..	..	..	1,032,083
<b>ESSEX (11).</b>								
<i>County Divisions (8).</i>								
Chelmsford, or M.....	T. Usborne .....	..	..	1	..	..	..	58,313
Epping, or W.....	Colonel Lockwood .....	..	..	1	..	..	..	55,416
Harwich, or N.E.....	J. Round ..	..	..	1	..	..	..	55,612
Maldon, or E.....	Cyril Dodd, Q.C. ..	1	..	..	..	..	..	54,572
Romford, or S.....	J. Theobald .....	..	..	1	..	..	..	103,543
Saffron Walden, or N.	H. C. Gardner .....	1	..	..	..	..	..	47,422
South-Eastern .....	Major Rasch .....	..	..	1	..	..	..	69,824
Walthamstow, or S.W.	E. W. Byrne, Q.C.....	..	..	1	..	..	..	101,236
		2	..	6	..	..	..	545,938
<i>Boroughs (3).</i>								
Colchester .....	Captain Naylor-Leyland ..	..	..	1	..	..	..	34,559
West Ham, North....	Archibald Grove.....	1	..	..	..	..	..	92,304
„ South....	J. Keir Hardie .....	..	1	..	..	..	..	112,598
		3	1	7	..	..	..	785,399
<b>GLOUCESTER (11).</b>								
<i>County Divisions (5).</i>								
Cirencester, or E.....	H. W. Lawson .....	1	..	..	..	..	..	53,364
Forest of Dean .....	Rt. Hon. Sir C. Dilke ....	1	..	..	..	..	..	52,791
Stroud, or M.....	D. B. Jones ..	1	..	..	..	..	..	56,488
Tewkesbury, or N.....	Sir J. E. Dorington .....	..	..	1	..	..	..	50,325
Thornbury, or S.....	C. E. H. A. Colston .....	..	..	1	..	..	..	63,587
		3	..	2	..	..	..	276,555

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Protege	
<b>GLOUCESTER.—CON.</b>								
<i>Boroughs (6).</i>								
Bristol, East .....	Sir J. D. Weston .....	1	..	..	..	..	..	70,685
„ North .....	Charles Townsend .....	1	..	..	..	..	..	77,172
„ South .....	Sir Edward Hill .....	..	..	1	..	..	..	72,273
„ West .....	Sir M. Hicks-Beach .....	..	..	1	..	..	..	65,481
Cheltenham ..	J. T. Agg-Gardner .....	..	..	1	..	..	..	49,775
Gloucester .....	T. Robinson ..	1	..	..	..	..	..	39,444
		5	..	6	..	..	..	651,385
<b>HANTS (12).</b>								
<i>County Divisions (6).</i>								
Andover, or W. ....	W. W. B. Beach .....	..	..	1	..	..	..	51,225
Basingstoke, or N. ..	A. F. Jeffreys .....	..	..	1	..	..	..	70,497
Fareham, or S. ....	Lt.-Gen. Sir F. Fitzwygram	..	..	1	..	..	..	65,987
Isle of Wight .....	Sir R. Webster .....	..	..	1	..	..	..	78,718
New Forest .....	Hon. J. W. Ed. Montague.	..	..	1	..	..	..	51,300
Petersfield, or E. ....	W. Wickham .....	..	..	1	..	..	..	47,165
		..	..	6	..	..	..	364,892
<i>Boroughs (6).</i>								
Christchurch .....	Abel H. Smith .....	..	..	1	..	..	..	53,270
Portsmouth (2) ....	John Baker .....	1	..	..	..	..	..	159,255
	W. O. Clough .....	1	..	..	..	..	..	
Southampton (2) ....	T. Chamberlayne .....	..	..	1	..	..	..	93,596
	F. H. Evans .....	1	..	..	..	..	..	
Winchester .....	W. H. Myers .....	..	..	1	..	..	..	19,073
		3	..	9	..	..	..	690,086
<b>HEREFORD (3).</b>								
<i>County Divisions (2).</i>								
Leominster, or N. ....	J. Rankin .....	..	..	1	..	..	..	45,830
Ross, or S. ....	M. Biddulph .....	..	..	..	1	..	..	49,889
		..	..	1	1	..	..	95,719
<i>Borough (1).</i>								
Hereford .....	R. Cooke .....	..	..	1	..	..	..	20,267
		..	..	2	1	..	..	115,986
<b>HERTFORD (4).</b>								
<i>County Divisions (4).</i>								
Hertford, or E. ....	A. Smith .....	..	..	1	..	..	..	54,571
Hitchin, or N. ....	G. B. Hudson .....	..	..	1	..	..	..	48,437
St. Albans, or M. ....	Vicary Gibbs .....	..	..	1	..	..	..	53,239
Watford, or W. ....	T. F. Halsey .....	..	..	1	..	..	..	63,878
		..	..	4	..	..	..	220,125

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paran'lite	
<b>HUNTINGDON (2).</b>								
<i>County Divisions (2).</i>								
Huntingdon, or S.....	A. H. Smith-Barry .....	..	..	1	..	..	..	25,422
Ramsey, or N. ....	Hon. A. E. Fellowes .....	..	..	1	..	..	..	29,558
<b>KENT (19).</b>								
<i>County Divisions (8).</i>								
Ashford, or S.....	L. Hardy .....	..	..	1	..	..	..	67,946
Dartford, or N.W....	Rt. Hon. Sir W. Hart-Dyke .....	..	..	1	..	..	..	79,850
Faversham, or N.E....	H. T. Knatchbull-Hugessen .....	..	..	1	..	..	..	69,343
Isle of Thanet .....	Rt. Hon. J. Lowther .....	..	..	1	..	..	..	61,617
Medway, or M. ....	Major C. E. Warde .....	..	..	1	..	..	..	64,178
Sevenoaks, or W. . .	H. W. Forster.....	..	..	1	..	..	..	80,062
St. Augustine's, or E..	Rt. Hon. A. Akers-Douglas. ....	..	..	1	..	..	..	68,011
Tunbridge, or S.W. .	A. Griffith-Boscawen .....	..	..	1	..	..	..	72,596
<i>Boroughs (11).</i>								
Canterbury .....	J. Henniker-Heaton .....	..	..	8	..	..	..	563,603
Chatham.....	Colonel Lloyd .....	..	..	1	..	..	..	22,607
Deptford .....	C. J. Darling .....	..	..	1	..	..	..	59,389
Dover ..	G. Wyndham .....	..	..	1	..	..	..	101,326
Gravesend .....	D. Palmer .....	..	..	1	..	..	..	33,313
Greenwich .....	T. W. Boord .....	..	..	1	..	..	..	35,492
Hythe .....	Sir Edward Watkin .....	..	..	..	1	..	..	78,131
Lewisham .....	J. Penn.....	..	..	1	..	..	..	35,540
Maidstone .....	F. S. W. Cornwallis .....	..	..	1	..	..	..	88,643
Rochester .....	Viscount Cranborne .....	..	..	1	..	..	..	32,145
Woolwich .....	Colonel Hughes .....	..	..	1	..	..	..	26,170
<b>LANCASTER (57).</b>								
<i>County Divisions (23).</i>								
<i>Northern Part (4).</i>								
Blackpool .....	Sir M. W. Ridley .....	..	..	1	..	..	..	98,976
Chorley .....	General R. J. Fielden .....	..	..	1	..	..	..	70,356
Lancaster .....	J. Williamson.....	1	..	..	..	..	..	67,854
North Lonsdale.....	W. Smith.....	1	..	..	..	..	..	64,279
<i>N.-Eastern Part (4).</i>								
Accrington.....	J. F. Leese, Q.C. ....	1	..	..	..	..	..	51,181
Clitheroe ..	Sir U. Kay-Shuttleworth..	1	..	..	..	..	..	75,712
Darwen .....	C. P. Huntingdon .....	1	..	..	..	..	..	89,331
Rossendale .....	J. H. Maden .....	1	..	..	..	..	..	70,475
<i>S.-Eastern Part (8).</i>								
Eccles .....	H. J. Roby .....	1	..	..	..	..	..	70,567
Gorton .....	W. Mather .....	1	..	..	..	..	..	78,133
Heywood .....	T. Snape ..	1	..	..	..	..	..	77,630
Middleton .....	C. H. Hopwood, Q.C. ....	1	..	..	..	..	..	56,794
Prestwich .....	R. G. C. Mowbray .....	..	..	1	..	..	..	68,540
Radcliffe-c'm-Farnwth	R. Leake .....	1	..	..	..	..	..	79,497
Stretford .....	J. W. Maclure.....	..	..	1	..	..	..	72,940
Westhoughton .....	E. G. V. Stanley .....	..	..	1	..	..	..	67,004
<b>LANCASTER (57).</b>								
<i>County Divisions (23).</i>								
<i>Northern Part (4).</i>								
Blackpool .....	Sir M. W. Ridley .....	..	..	1	..	..	..	83,063
Chorley .....	General R. J. Fielden .....	..	..	1	..	..	..	70,356
Lancaster .....	J. Williamson.....	1	..	..	..	..	..	67,854
North Lonsdale.....	W. Smith.....	1	..	..	..	..	..	64,279
<i>N.-Eastern Part (4).</i>								
Accrington.....	J. F. Leese, Q.C. ....	1	..	..	..	..	..	51,181
Clitheroe ..	Sir U. Kay-Shuttleworth..	1	..	..	..	..	..	75,712
Darwen .....	C. P. Huntingdon .....	1	..	..	..	..	..	89,331
Rossendale .....	J. H. Maden .....	1	..	..	..	..	..	70,475
<i>S.-Eastern Part (8).</i>								
Eccles .....	H. J. Roby .....	1	..	..	..	..	..	70,567
Gorton .....	W. Mather .....	1	..	..	..	..	..	78,133
Heywood .....	T. Snape ..	1	..	..	..	..	..	77,630
Middleton .....	C. H. Hopwood, Q.C. ....	1	..	..	..	..	..	56,794
Prestwich .....	R. G. C. Mowbray .....	..	..	1	..	..	..	68,540
Radcliffe-c'm-Farnwth	R. Leake .....	1	..	..	..	..	..	79,497
Stretford .....	J. W. Maclure.....	..	..	1	..	..	..	72,940
Westhoughton .....	E. G. V. Stanley .....	..	..	1	..	..	..	67,004

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1881.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
<b>LANCASTER.—CON.</b>								
<i>S.—Western Part (7).</i>								
Bootle .....	Colonel Sandys .....	..	..	1	..	..	..	97,552
Ince .....	Samuel Woods .....	..	1	..	..	..	..	67,021
Leigh .....	C. Wright .....	1	..	..	..	..	..	65,155
Newton .....	T. W. Leigh .....	..	..	1	..	..	..	63,296
Ormskirk .....	Rt. Hon. A. B. Forwood ..	..	..	1	..	..	..	64,096
Southport .....	Hon. G. N. Curzon ..	..	..	1	..	..	..	76,581
Widnes .....	J. S. Gilleat .....	..	..	1	..	..	..	64,507
<i>Boroughs (34).</i>								
Ashton-under-Lyne ..	J. E. W. Addison, Q.C. ....	12	1	10	..	..	..	1,641,624
Barrow-in-Furness ..	C. W. Cayzer .....	..	..	1	..	..	..	47,322
Blackburn (2) .....	W. H. Hornby ..	..	..	1	..	..	..	120,064
	W. Coddington .....	..	..	1	..	..	..	
Bolton (2) .....	H. Shepherd Cross .....	..	..	1	..	..	..	118,730
	Hon. Colonel Bridgeman ..	..	..	1	..	..	..	
Burnley .....	Rt. Hon. H. Stanhope .....	1	..	..	..	..	..	86,163
Bury .....	Rt. Hon. Sir H. James .....	..	..	..	1	..	..	55,491
Liverpool, Abercromby	W. F. Lawrence .....	..	..	1	..	..	..	55,564
„ East Toxteth ..	Baron H. de Worms .....	..	..	1	..	..	..	63,926
„ Everton .....	J. A. Willox .....	..	..	1	..	..	..	78,639
„ Exchange ..	R. Neville, Q.C. ....	1	..	..	..	..	..	47,704
„ Kirkdale .....	Sir G. Baden-Powell ..	..	..	1	..	..	..	77,018
„ Scotland .....	T. P. O'Connor .....	..	..	..	..	1	..	53,723
„ Walton .....	J. H. Stock .....	..	..	1	..	..	..	66,465
„ West Derby ..	Walter Long .....	..	..	1	..	..	..	76,971
„ West Toxteth ..	R. P. Houston .....	..	..	1	..	..	..	64,461
Manchester, East ....	Rt. Hon. A. J. Balfour ....	..	..	1	..	..	..	85,407
„ North .....	C. E. Schwann .....	1	..	..	..	..	..	76,629
„ N'th-East ..	Rt. Hon. Sir J. Fergusson ..	..	..	1	..	..	..	72,794
„ N'th-West ..	Sir W. H. Houldsworth ..	..	..	1	..	..	..	67,633
„ South ..	Sir Henry Roscoe .....	1	..	..	..	..	..	80,051
„ S'th-West ..	Jacob Bright .....	1	..	..	..	..	..	71,968
Oldham (2) .....	J. M. Cheetham .....	1	..	..	..	..	..	183,871
	Sir J. T. Hibbert .....	1	..	..	..	..	..	
Preston (2) .....	R. W. Hanbury ..	..	..	1	..	..	..	111,696
	W. E. M. Tomlinson .....	..	..	1	..	..	..	
Rochdale .....	T. B. Potter .....	1	..	..	..	..	..	71,458
Salford, North .....	W. H. Holland .....	1	..	..	..	..	..	61,520
„ South .....	Sir H. H. Howarth .....	..	..	1	..	..	..	68,879
„ West .....	Lees Knowles .....	..	..	1	..	..	..	67,740
St. Helens .....	H. Seton-Karr .....	..	..	1	..	..	..	71,288
Warrington .....	R. Pierpoint .....	..	..	1	..	..	..	55,349
Wigan .....	Sir F. S. Powell .....	..	..	1	..	..	..	55,013
		21	1	33	1	1	..	3,906,873

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
<b>LEICESTER (6).</b>								
<i>County Divisions (4).</i>								
Bosworth, or W.....	C. B. Mc.Laren .....	1	..	..	..	..	..	57,240
Harborough, or S.....	J. W. Logan .....	1	..	..	..	..	..	59,368
Loughborough, or M..	J. E. Johnson-Ferguson ..	1	..	..	..	..	..	55,164
Melton, or E.....	Marquis of Granby .....	..	..	1	..	..	..	59,852
		3	..	1	..	..	..	231,624
<i>Boroughs (2).</i>								
Leicester (2) .....	J. A. Picton.....	1	..	..	..	..	..	142,051
	Sir J. Whitehead .....	1	..	..	..	..	..	
		5	..	1	..	..	..	373,675
<b>LINCOLN (11).</b>								
<i>County Divisions (7).</i>								
Brigg, or N. Lindsey..	S. D. Waddy, Q.C.....	1	..	..	..	..	..	49,151
Gainsboro', or W. L'sey	J. Bennett .....	1	..	..	..	..	..	49,595
Horncastle, or S. L'sey	Rt. Hon. E. Stanhope ....	..	..	1	..	..	..	46,079
Louth, or E. Lindsey.	R. W. Perks .....	1	..	..	..	..	..	46,868
Sleaford, or N. Kestevn	Rt. Hon. H. Chaplin.....	..	..	1	..	..	..	45,474
Spalding, or Holland..	Halley Stewart .....	1	..	..	..	..	..	49,279
Stamford, or S. Kest'vn	H. J. Cust .....	..	..	1	..	..	..	47,647
		4	..	3	..	..	..	334,093
<i>Boroughs (4).</i>								
Boston .....	W. J. Ingram .....	1	..	..	..	..	..	18,927
Grantham .....	H. H. Lopes .....	..	..	1	..	..	..	17,170
Great Grimsby .....	Rt. Hon. E. Heneage ....	..	..	..	1	..	..	58,603
Lincoln .....	W. Crosfield .....	1	..	..	..	..	..	43,985
		6	..	4	1	..	..	472,778
<b>MIDDLESEX (47).</b>								
<i>County Divisions (7).</i>								
Brentford .....	J. Bigwood .....	..	..	1	..	..	..	69,792
Ealing .....	Rt. Hon. Lord G. Hamilton	..	..	1	..	..	..	70,756
Enfield .....	Captain H. F. Bowles ....	..	..	1	..	..	..	84,388
Harrow .....	W. Ambrose.....	..	..	1	..	..	..	96,720
Hornsey .....	H. C. Stephens .....	..	..	1	..	..	..	78,043
Tottenham .....	Joseph Howard .....	..	..	1	..	..	..	97,166
Uxbridge.....	F. D. Dixon Hartland ....	..	..	1	..	..	..	67,754
		..	..	7	..	..	..	564,619
<i>Boroughs (40).</i>								
Bethnal Green, N.E..	George Howell .....	1	..	..	..	..	..	66,804
" " S.W..	E. H. Pickersgill .....	1	..	..	..	..	..	62,330
Chelsea .....	C. A. Whitmore .....	..	..	1	..	..	..	96,272
City of London (2)..	Sir R. Hanson .....	..	..	1	..	..	..	37,694
	A. G. H. Gibbs .....	..	..	1	..	..	..	
Finsbury, Central....	D. Naoroji .....	1	..	..	..	..	..	65,885



## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Farm/ite	
<b>MIDDLESEX.—Con.</b>								
Finsbury, East .....	J. Rowlands .....	1	..	..	..	..	..	45,306
„ Holborn ..	Sir Charles Hall, Q.C. ....	..	..	1	..	..	..	70,918
Fulham .....	W. H. Fisher .....	..	..	1	..	..	..	91,640
Hackney, Central .....	Sir A. Scoble, Q.C. ....	..	..	1	..	..	..	64,760
„ North .....	W. R. Bousfield, Q.C. ....	..	..	1	..	..	..	77,170
„ South .....	Sir Charles Russell, Q.C. ...	1	..	..	..	..	..	87,601
Hammersmith .....	General Goldsworthy .....	..	..	1	..	..	..	97,237
Hampstead .....	E. Broadie-Hoare .....	..	..	1	..	..	..	68,425
Islington, East .....	B. L. Cohen .....	..	..	1	..	..	..	83,883
„ North .....	G. C. T. Bartley .....	..	..	1	..	..	..	90,272
„ South .....	Sir Albert Rollitt .....	..	..	1	..	..	..	71,910
„ West .....	T. Lough .....	1	..	..	..	..	..	73,368
Kensington, North ..	F. C. Frye .....	1	..	..	..	..	..	82,656
„ South ..	Sir Algernon Borthwick ..	..	..	1	..	..	..	83,665
Marylebone, East .....	E. Boulnois .....	..	..	1	..	..	..	66,673
„ West .....	F. Seager Hunt .....	..	..	1	..	..	..	75,708
Paddington, North ..	John Aird .....	..	..	1	..	..	..	64,671
„ South ..	Rt. Hon. Lord R. Churchill ..	..	..	1	..	..	..	53,167
Shoreditch, Haggerston	W. R. Cremer .....	1	..	..	..	..	..	56,356
„ Hoxton ..	Alderman James Stuart ..	1	..	..	..	..	..	67,653
St. George's, Han'vr-sq.	Rt. Hon. G. J. Goschen ..	..	..	..	1	..	..	78,362
St. Pancras, East .....	R. G. Webster .....	..	..	1	..	..	..	60,844
„ North ..	T. H. Bolton .....	1	..	..	..	..	..	59,126
„ South ..	Sir Julian Goldsmid .....	..	..	..	1	..	..	53,767
„ West .....	H. R. Graham .....	..	..	1	..	..	..	60,700
Strand .....	Hon. W. F. D. Smith .....	..	..	1	..	..	..	64,674
<i>Tower Hamlets :</i>								
Bow and Bromley .....	J. M. Mc.Donald .....	1	..	..	..	..	..	88,645
Limehouse .....	J. S. Wallace .....	1	..	..	..	..	..	55,232
Mile End .....	Spencer Charrington .....	..	..	1	..	..	..	48,850
Poplar .....	Sidney Buxton .....	1	..	..	..	..	..	78,052
St. George .....	J. W. Benn .....	1	..	..	..	..	..	47,913
Stepney .....	F. W. Isaacson .....	..	..	1	..	..	..	58,715
Whitechapel .....	Samuel Montagu .....	1	..	..	..	..	..	74,420
Westminster .....	W. Burdett-Coutts .....	..	..	1	..	..	..	55,760
		15	..	30	2	..	..	3,251,703
<b>MONMOUTH (4).</b>								
<i>County Divisions (3).</i>								
Northern .....	Captain T. P. Price .....	1	..	..	..	..	..	62,690
Southern .....	Hon. F. C. Morgan .....	..	..	1	..	..	..	66,133
Western .....	C. M. Warmington .....	1	..	..	..	..	..	64,695
		2	..	1	..	..	..	193,518
Borough (1).		1	..	..	..	..	..	58,742
Monmouth Group .....	Albert Spicer .....	1	..	..	..	..	..	58,742
		3	..	1	..	..	..	252,260

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parallite	
<b>NORFOLK (10).</b>								
<i>County Divisions (6).</i>								
Eastern .....	R. J. Price .....	1	..	..	..	..	..	40,693
Midland .....	C. Higgins, Q.C. ....	1	..	..	..	..	..	49,604
Northern .....	H. Cozens-Hardy, Q.C. ....	1	..	..	..	..	..	51,072
North-Western .....	Joseph Arch .....	..	1	..	..	..	..	51,278
Southern .....	F. Taylor .....	..	..	..	1	..	..	49,730
South-Western .....	T. L. Hare .....	..	..	1	..	..	..	47,133
<i>Boroughs (4).</i>								
Great Yarmouth ....	J. M. Moorson, Q.C. ....	1	..	..	..	..	..	49,318
King's Lynn .....	T. Gibson Bowles .....	..	..	1	..	..	..	18,265
Norwich (2).....	S. Hoare .....	..	..	1	..	..	..	100,970
	J. J. Colman .....	1	..	..	..	..	..	
		5	1	3	1	..	..	458,063
<b>NORTHAMPTON (7).</b>								
<i>County Divisions (4).</i>								
Eastern .....	F. A. Channing .....	1	..	..	..	..	..	65,499
Mid .....	Hon. C. R. Spencer .....	1	..	..	..	..	..	48,790
Northern .....	Lord Burghley .....	..	..	1	..	..	..	46,723
Southern .....	D. C. Guthrie .....	1	..	..	..	..	..	46,628
<i>Boroughs (3).</i>								
Northampton (2) ..	H. Labouchere .....	3	..	1	..	..	..	207,640
	M. P. Manfield .....	1	..	..	..	..	..	70,872
Peterborough .....	A. C. Morton .....	1	..	..	..	..	..	26,464
		6	..	1	..	..	..	304,976
<b>NORTH'MB'RL'ND (8).</b>								
<i>County Divisions (4).</i>								
Berwick-on-Tweed ..	Sir Edward Grey .....	1	..	..	..	..	..	52,442
Hexham .....	Miles McInnes .....	1	..	..	..	..	..	51,587
Tyneside .....	J. A. Peace .....	1	..	..	..	..	..	69,642
Wansbeck .....	C. Fenwick .....	..	1	..	..	..	..	59,701
<i>Boroughs (4).</i>								
Morpeth .....	Thomas Burt .....	3	1	..	..	..	..	233,372
		..	1	..	..	..	..	40,133
Newcastle-on-T'n (2) }	Alderman C. F. Hamond ..	..	..	1	..	..	..	186,324
	Rt. Hon. John Morley ....	1	..	..	..	..	..	
Tynemouth .....	R. S. Donkin .....	..	..	1	..	..	..	46,267
		4	2	2	..	..	..	506,096
<b>NOTTINGHAM (7).</b>								
<i>County Divisions (4).</i>								
Bassetlaw .....	Sir F. Milner .....	..	..	1	..	..	..	51,452
Mansfield .....	J. C. Williams .....	1	..	..	..	..	..	65,790
Newark .....	Viscount Newark .....	..	..	1	..	..	..	50,035
Rushcliffe .....	J. E. Ellis .....	1	..	..	..	..	..	66,617
		2	..	2	..	..	..	233,894

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Farm'like	
<b>NOTTINGHAM.—CON.</b>								
<i>Boroughs (3).</i>								
Nottingham, East....	Arnold Morley .....	1	..	..	..	..	..	69,181
„ South ..	H. Smith Wright .....	..	..	1	..	..	..	60,487
„ West ..	Colonel Seely .....	..	..	..	1	..	..	82,037
		3	..	3	1	..	..	445,599
<b>OXFORD (4).</b>								
<i>County Divisions (3).</i>								
Banbury, or N. ....	Sir B. Samuelson .....	1	..	..	..	..	..	43,861
Henley, or S. ....	Hon. F. Parker .....	..	..	1	..	..	..	48,145
Woodstock, or M.....	G. R. Benson .....	1	..	..	..	..	..	50,464
<i>Borough (1).</i>								
Oxford .....	Sir George Chesney .....	2	..	1	..	..	..	142,470
		..	..	1	..	..	..	45,741
		2	..	2	..	..	..	188,211
<b>RUTLAND (1).</b>								
<i>County Division (1).</i>								
Rutland .....	G. H. Finch .....	..	..	1	..	..	..	20,659
<b>SALOP (5).</b>								
<i>County Divisions (4).</i>								
Ludlow, or S. ....	R. J. More .....	..	..	..	1	..	..	55,920
Newport, or N. ....	Colonel Kenyon Slaney....	..	..	1	..	..	..	53,035
Oswestry, or W.....	Stanley Leighton .....	..	..	1	..	..	..	54,178
Wellington, or M.....	A. H. Brown .....	..	..	..	1	..	..	46,224
<i>Borough (1).</i>								
Shrewsbury.....	H. D. Greene, Q.C. ....	..	..	2	2	..	..	209,357
		..	..	1	..	..	..	26,967
		..	..	3	2	..	..	236,324
<b>SOMERSET (10).</b>								
<i>County Divisions (7).</i>								
Bridgwater .....	E. J. Stanley .....	..	..	1	..	..	..	48,226
Eastern .....	H. Hobhouse .....	..	..	..	1	..	..	50,152
Frome .....	J. E. Barlow .....	1	..	..	..	..	..	53,552
Northern .....	T. Courtenay Warner ....	1	..	..	..	..	..	53,418
Southern .....	Edward Strachey .....	1	..	..	..	..	..	51,300
Wellington, or W.....	Sir A. Acland-Hood .....	..	..	1	..	..	..	48,122
Wells .....	Sir R. Paget .....	..	..	1	..	..	..	55,569
<i>Boroughs (3).</i>								
Bath (2) .....	Colonel Wyndham Murray.	..	..	1	..	..	..	360,939
Taunton .....	E. R. Wodehouse .....	..	..	..	1	..	..	54,550
	A. P. Allsopp .....	..	..	1	..	..	..	18,026
		3	..	5	2	..	..	432,915

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
<b>STAFFORD (17).</b>								
<i>County Divisions (7).</i>								
Burton.....	Sidney Evershed .....	1	..	..	..	..	..	58,640
Handsworth .....	Sir H. Meysey Thompson..	..	..	..	1	..	..	84,782
Kingswinford .....	A. Staveley Hill .....	..	..	1	..	..	..	47,665
Leek .....	Charles Bill .....	..	..	1	..	..	..	56,711
Lichfield .....	Major L. Darwin .....	..	..	..	1	..	..	52,006
North-Western .....	James Heath .....	..	..	1	..	..	..	63,166
Western .....	Hamar A. Bass .....	..	..	..	1	..	..	56,546
		1	..	3	3	..	..	419,516
<i>Boroughs (10).</i>								
Hanley .....	W. Woodall.....	1	..	..	..	..	..	86,845
Newcastle-und'r-Lyme	W. Allen .....	1	..	..	..	..	..	54,184
Stafford .....	C. E. Shaw .....	1	..	..	..	..	..	20,270
Stoke-on-Trent .....	Hon. G. Leveson-Gower ..	1	..	..	..	..	..	75,352
Walsall .....	Arthur Hayter .....	1	..	..	..	..	..	71,791
Wednesbury .....	W. Lloyd .....	..	..	1	..	..	..	69,083
West Bromwich .....	Ernest Spencer .....	..	..	1	..	..	..	59,489
Wolverhampton, E. ..	Rt. Hon. H. H. Fowler....	1	..	..	..	..	..	54,511
„ S. ..	Rt. Hon. C. P. Villiers ....	..	..	..	1	..	..	57,096
„ W... ..	Sir A. Hickman .....	..	..	1	..	..	..	62,718
		7	..	6	4	..	..	1,030,855
<b>SUFFOLK (8).</b>								
<i>County Divisions (5).</i>								
Eye, or N.E. ....	F. Stephenson .....	1	..	..	..	..	..	54,825
Lowestoft, or N. ....	H. S. Foster .....	..	..	1	..	..	..	61,654
Stowmarket, or N.W..	S. J. Stern .....	1	..	..	..	..	..	55,099
Sudbury, or S. ....	Cuthbert Quilter .....	..	..	..	1	..	..	55,655
Woodbridge, or S.E...	R. L. Everett .....	1	..	..	..	..	..	56,539
		3	..	1	1	..	..	283,772
<i>Boroughs (3).</i>								
Bury St. Edmunds ..	Viscount Chelsea .....	..	..	1	..	..	..	16,630
Ipswich (2) .....	Sir C. Dalrymple .....	..	..	1	..	..	..	57,360
	Lord Elcho .....	..	..	1	..	..	..	
		3	..	4	1	..	..	357,762
<b>SURREY (22).</b>								
<i>County Divisions (6).</i>								
Chertsey, or N.W.....	C. H. Coombe .....	..	..	1	..	..	..	61,968
Epsom, or M. ....	T. T. Bucknill.....	..	..	1	..	..	..	70,103
Guildford, or S.W....	Hon. St. John Brodrick ..	..	..	1	..	..	..	67,722
Kingston .....	Sir R. Temple.....	..	..	1	..	..	..	85,367
Reigate, or S.E.....	H. Cubitt .....	..	..	1	..	..	..	64,453
Wimbledon, or N.E...	Cosmo Bonsor.....	..	..	1	..	..	..	69,236
		..	..	6	..	..	..	418,849

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
<b>SURREY.—CON.</b>								
<i>Boroughs (16).</i>								
Battersea .....	John Burns .....	..	1	..	..	..	..	97,204
Camberwell, Dulwich..	J. Blundell Maple .....	..	..	1	..	..	..	83,272
„ North ..	E. H. Bayley .....	1	..	..	..	..	..	88,932
„ Peckham.	F. G. Banbury .....	..	..	1	..	..	..	83,482
Clapham .....	P. M. Thornton .....	..	..	1	..	..	..	96,952
Croydon .....	Hon. Sidney Herbert .....	..	..	1	..	..	..	102,697
Lambeth, Brixton....	Marquis of Carmarthen ..	..	..	1	..	..	..	70,356
„ Kennington	Mark H. Beaufoy .....	1	..	..	..	..	..	73,919
„ North ....	Alderman Coldwells .....	1	..	..	..	..	..	62,516
„ Norwood ..	C. E. Tritton .....	..	..	1	..	..	..	68,411
Newington, Walworth.	W. Saunders .....	1	..	..	..	..	..	59,040
„ West ....	Captain Cecil Norton ....	1	..	..	..	..	..	56,623
Southwark, Bermondsey	R. V. Barrow .....	1	..	..	..	..	..	82,898
„ Rotherhithe	J. C. Macdonald .....	..	..	1	..	..	..	73,662
„ West .....	R. K. Causton .....	1	..	..	..	..	..	66,770
Wandsworth .....	H. Kimber .....	..	..	1	..	..	..	113,233
		7	1	14	..	..	..	1,698,816
<b>SUSSEX (9).</b>								
<i>County Divisions (6).</i>								
Chichester, or S.W. ..	Lord W. G. Lennox .....	..	..	1	..	..	..	54,357
Eastbourne, or S. ....	Vice-Admiral E. Field ....	..	..	1	..	..	..	66,468
East Grinstead, or N..	Hon. A. Gathorne-Hardy..	..	..	1	..	..	..	52,525
Horsham, or N.W. ....	J. H. Johnstone .....	..	..	1	..	..	..	52,977
Lewes, or M. ....	Sir H. Fletcher .....	..	..	1	..	..	..	64,026
Rye, or E. ....	A. M. Brookfield .....	..	..	1	..	..	..	57,090
		..	..	6	..	..	..	347,443
<i>Boroughs (3).</i>								
Brighton (2) .....	G. W. E. Loder .....	..	..	1	..	..	..	142,121
	Bruce Wentworth .....	..	..	1	..	..	..	
Hastings .....	Wilson Noble .....	..	..	1	..	..	..	60,878
		..	..	9	..	..	..	550,442
<b>WARWICK (14).</b>								
<i>County Divisions (4).</i>								
Nuneaton, or N.E. ....	F. A. Newdigate .....	..	..	1	..	..	..	53,280
Rugby, or S.E. ....	H. P. Cobb .....	1	..	..	..	..	..	49,130
Stratford-on-A., or S.W.	A. B. Freeman Mitford .....	..	..	1	..	..	..	46,440
Tamworth, or N. ....	P. A. Muntz .....	..	..	1	..	..	..	54,134
		1	..	3	..	..	..	202,984

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Farm'ly	
<b>WARWICK.—CON.</b>								
<i>Boroughs (10).</i>								
Aston Manor .....	Captain Grice-Hutchinson.	..	..	1	..	..	..	68,639
Birm'gham, Bordesley .....	Jesse Collings .....	..	..	..	1	..	..	82,863
„ Central.. ..	J. A. Bright.....	..	..	..	1	..	..	59,099
„ East ....	Rt. Hon. H. Matthews ....	..	..	1	..	..	..	65,683
„ Edgbaston ..	G. Dixon .....	..	..	..	1	..	..	67,682
„ North ..	Alderman Kenrick.....	..	..	..	1	..	..	62,948
„ South ..	J. Powell Williams .....	..	..	..	1	..	..	70,334
„ West....	Rt. Hon. J. Chamberlain ..	..	..	..	1	..	..	69,508
Coventry .....	W. H. W. Ballantine .....	1	..	..	..	..	..	54,743
Warwick & Leamington	Rt. Hon. A. W. Peel .....	..	..	..	1	..	..	39,102
		2	..	5	7	..	..	843,585
<b>WESTMORLAND (2).</b>								
<i>County Divisions (2).</i>								
Appleby, or N. ....	Sir Joseph Savory .....	..	..	1	..	..	..	31,176
Kendal, or S. ....	Captain J. F. Bagot .....	..	..	1	..	..	..	34,922
		..	..	2	..	..	..	66,098
<b>WILTS (6).</b>								
<i>County Divisions (5).</i>								
Chippenham, or N.W.	Sir J. D. Poynder .....	..	..	1	..	..	..	44,356
Cricklade, or N. ....	John Husband .....	1	..	..	..	..	..	59,414
Devizes, or E. ....	C. E. Hobhouse .....	1	..	..	..	..	..	48,267
Westbury, or W. ....	G. P. Fuller .....	1	..	..	..	..	..	52,669
Wilton, or S. ....	Viscount Folkestone .....	..	..	1	..	..	..	42,901
		3	..	2	..	..	..	247,607
<i>Borough (1).</i>								
Salisbury.....	E. H. Hulse .....	..	..	1	..	..	..	17,362
		3	..	3	..	..	..	264,969
<b>WORCESTER (8).</b>								
<i>County Divisions (5).</i>								
Bewdley, or W. ....	A. Baldwin .....	..	..	1	..	..	..	52,018
Droitwich, or M. ....	R. B. Martin .....	..	..	..	1	..	..	48,281
Eastern .....	J. A. Chamberlain .....	..	..	..	1	..	..	59,357
Evesham, or S.....	Sir E. Lechmere .....	..	..	1	..	..	..	49,538
Northern.....	B. Hingley .....	1	..	..	..	..	..	58,437
		1	..	2	2	..	..	267,631
<i>Boroughs (3).</i>								
Dudley.....	Brooke Robinson .....	..	..	1	..	..	..	90,223
Kidderminster .....	A. F. Godson, Q.C. ....	..	..	1	..	..	..	26,905
Worcester .....	Hon. G. H. Allsopp .....	..	..	1	..	..	..	42,899
		1	..	5	2	..	..	427,658

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
YORKSHIRE (52).								
County Divisions (26).								
East Riding :								
Buckrose .....	A. Holden .....	1	..	..	..	..	..	50,676
Holderness .....	Commander Bethell .....	..	..	1	..	..	..	41,479
Howdenshire .....	Captain W. H. Wilson-Todd .....	..	..	1	..	..	..	49,627
North Riding :								
Cleveland .....	H. F. Pease .....	1	..	..	..	..	..	55,917
Richmond .....	G. W. Elliot .....	..	..	1	..	..	..	54,450
Thirsk and Malton ..	J. G. Lawson .....	..	..	1	..	..	..	57,191
Whitby .....	E. W. Beckett .....	..	..	1	..	..	..	54,781
West Riding :								
Barkeston Ash .....	Colonel Gunter .....	..	..	1	..	..	..	48,470
Barnsley .....	Earl Compton .....	1	..	..	..	..	..	78,844
Colne Valley .....	Sir J. Kitson .....	1	..	..	..	..	..	59,344
Doncaster .....	C. J. Fleming .....	1	..	..	..	..	..	73,157
Elland .....	Alderman T. Wayman .....	1	..	..	..	..	..	64,632
Hallamshire .....	Sir F. Mappin .....	1	..	..	..	..	..	73,254
Holmfirth .....	H. J. Wilson .....	1	..	..	..	..	..	65,160
Keighley .....	Isaac Holden .....	1	..	..	..	..	..	63,263
Morley .....	A. E. Hutton .....	1	..	..	..	..	..	65,219
Normanton .....	B. Pickard .....	..	1	..	..	..	..	72,013
Osgoldcross .....	John Austin .....	1	..	..	..	..	..	66,779
Otley .....	J. Barran .....	1	..	..	..	..	..	61,746
Pudsey .....	Briggs Priestley .....	1	..	..	..	..	..	49,252
Ripon .....	J. L. Wharton .....	..	..	1	..	..	..	54,925
Rotherham .....	A. H. D. Acland .....	1	..	..	..	..	..	78,578
Shipley .....	W. P. Byles .....	..	1	..	..	..	..	62,166
Skipton .....	C. S. Roundell .....	1	..	..	..	..	..	58,213
Sowerby .....	Rt. Hon. J. W. Mellor, Q.C. .....	1	..	..	..	..	..	63,192
Spen Valley .....	T. P. Whittaker .....	1	..	..	..	..	..	57,402
		17	2	7	..	..	..	1,579,730
Boroughs (26).								
East Riding :								
Hull, Central .....	H. S. King .....	..	..	1	..	..	..	65,565
„ East .....	Clarence Smith .....	1	..	..	..	..	..	55,492
„ West .....	C. H. Wilson .....	1	..	..	..	..	..	78,603
North Riding :								
Middlesbrough .....	J. H. Wilson .....	..	1	..	..	..	..	98,899
Scarborough .....	Sir G. Sitwell .....	..	..	1	..	..	..	33,776
York (2) .....	J. G. Butcher .....	..	..	1	..	..	..	66,984
	F. Lockwood, Q.C. ....	1	..	..	..	..	..	
West Riding :								
Bradford, Central ....	Rt. Hon. G. Shaw-Lefevre .....	1	..	..	..	..	..	65,847
„ East .....	W. S. Caine .....	1	..	..	..	..	..	79,545
„ West .....	A. Illingworth .....	1	..	..	..	..	..	70,969
Dewsbury .....	Mark Oldroyd .....	1	..	..	..	..	..	72,983
Halifax (2) .....	Rawson Shaw .....	1	..	..	..	..	..	82,863
	Rt. Hon. J. Stansfield .....	1	..	..	..	..	..	
Huddersfield .....	Sir J. Crossland .....	..	..	1	..	..	..	96,495

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranillite	
YORKSHIRE.—Con.								
<i>West Riding:</i>								
Leeds, Central .....	G. W. Balfour .....	..	..	1	..	..	..	69,135
„ East .....	J. Lawrence-Gane, Q.C. ..	1	..	..	..	..	..	64,609
„ North .....	Rt. Hon. W. L. Jackson ..	..	..	1	..	..	..	81,547
„ South .....	J. L. Walton, Q.C. ....	1	..	..	..	..	..	70,018
„ West .....	Herbert Gladstone .....	1	..	..	..	..	..	82,197
Pontefract .....	— Nussey .....	1	..	..	..	..	..	16,407
Sheffield, Attercliffe ..	Hon. B. Coleridge, Q.C. ....	1	..	..	..	..	..	72,462
„ Brightside ..	Rt. Hon. A. J. Mundella ..	1	..	..	..	..	..	67,083
„ Central .....	Colonel Howard Vincent ..	..	..	1	..	..	..	66,461
„ Ecclesall ..	E. Ashmead-Bartlett .....	..	..	1	..	..	..	63,302
„ Hallam ....	C. B. Stuart-Wortley .....	..	..	1	..	..	..	54,935
Wakefield .....	A. H. Charlesworth .....	..	..	1	..	..	..	37,269
		31	3	18	..	..	..	3,193,176
UNIVERSITIES (5).								
Cambridge (2) .....	Professor R. C. Jebb .....	..	..	1	..	..	..	....
	Rt. Hon. Sir J. E. Gorst ..	..	..	1	..	..	..	....
Oxford (2) .....	Rt. Hon. Sir J. Mowbray ..	..	..	1	..	..	..	....
	J. G. Talbot .....	..	..	1	..	..	..	....
London .....	Rt. Hon. Sir John Lubbock	..	..	..	1	..	..	....
		..	..	4	1	..	..	....
WALES.								
ANGLESEY (1).								
<i>County Division (1).</i>								
Anglesey .....	T. P. Lewis .....	1	..	..	..	..	..	50,079
BRECON (1).								
<i>County Division (1).</i>								
Brecon .....	William Fuller Maitland ..	1	..	..	..	..	..	54,550
CARDIGAN (1).								
<i>County Division (1).</i>								
Cardigan .....	W. Bowen Rowlands, Q.C. ..	1	..	..	..	..	..	62,596
CARMARTHEN (3).								
<i>County Divisions (2).</i>								
Eastern .....	Abel Thomas .....	1	..	..	..	..	..	49,135
Western .....	J. Lloyd Morgan .....	1	..	..	..	..	..	46,926
<i>Borough (1).</i>								
Carmarthen Group ..	Major Jones .....	1	..	..	..	..	..	34,513
		3	..	..	..	..	..	130,745



## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranilitie	
<b>CARNARVON (3).</b>								
<i>County Divisions (2).</i>								
Arfon, or N. ....	W. Rathbone .....	1	..	..	..	..	..	45,822
Eifion, or S. ....	J. B. Roberts .....	1	..	..	..	..	..	42,826
		2	..	..	..	..	..	88,648
<i>Borough (1).</i>								
Carnarvon Group ....	D. Lloyd George.....	1	..	..	..	..	..	29,577
		3	..	..	..	..	..	118,225
<b>DENBIGH (3).</b>								
<i>County Divisions (2).</i>								
Eastern .....	Rt. Hon. G. O Morgan ..	1	..	..	..	..	..	47,317
Western .....	J. H. Roberts .....	1		..	..	..	..	46,417
		2	..	..	..	..	..	93,734
<i>Borough (1).</i>								
Denbigh Group .....	Hon. G. T. Kenyon .....	..	..	1	..	..	..	24,216
		2	..	1	..	..	..	117,950
<b>FLINT (2).</b>								
<i>County Division (1).</i>								
Flint .....	Samuel Smith .....	1	..	..	..	..	..	53,034
<i>Borough (1).</i>								
Flint Group .....	J. H. Lewis.....	1		..	..	..	..	23,251
		2	..	..	..	..	..	76,285
<b>GLAMORGAN (10).</b>								
<i>County Divisions (5).</i>								
Eastern .....	Alfred Thomas .....	1	..	..	..	..	..	72,465
Gower, or W.....	D. D. Randall.....	1	..	..	..	..	..	55,261
Mid .....	S. T. Evans .....	1	..	..	..	..	..	60,968
Rhondda .....	W. Abraham .....	1	..	..	..	..	..	68,720
Southern .....	A J. Williams .....	1	..	..	..	..	..	75,337
		5	..	..	..	..	..	332,751
<i>Boroughs (5).</i>								
Cardiff Group.....	Sir E. J. Reed.....	1	..	..	..	..	..	132,163
Merthyr Tydvil ....	D. A. Thomas .....	1	..	..	..	..	..	104,008
	W. Pritchard Morgan ....	1	..	..	..	..	..	
Swansea District ....	W. Williams .....	1	..	..	..	..	..	63,140
„ Town .....	R. D. Burnie .....	1	..	..	..	..	..	57,566
		10	..	..	..	..	..	689,628
<b>MERIONETH (1).</b>								
<i>County Division (1).</i>								
Merioneth .....	T. E. Ellis .....	1	..	..	..	..	..	49,204

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranilitie	
MONTGOMERY (2). <i>County Division (1).</i>								
Montgomery .....	Stuart Rendel.....	1	..	..	..	..	..	40,214
<i>Borough (1).</i>								
Montgomery Group ..	Sir Pryce Pryce Jones ....	..	..	1	..	..	..	17,789
		1	..	1	..	..	..	58,003
PEMBROKE (2). <i>County Division (1).</i>								
Pembroke .....	W. R. Davies .....	1	..	..	..	..	..	53,921
<i>Borough (1).</i>								
Pembroke Group ....	C. F. E. Allen.....	1	..	..	..	..	..	35,204
		2	..	..	..	..	..	89,125
RADNOR (1). <i>County Division (1).</i>								
Radnor .....	F. Edwards .....	1	..	..	..	..	..	21,791
SCOTLAND.								
ABERDEEN (4). <i>County Divisions (2).</i>								
Eastern .....	T. R. Buchanan .....	1	..	..	..	..	..	79,926
Western .....	Dr. R. Farquharson .....	1	..	..	..	..	..	65,210
<i>Boroughs (2).</i>								
Aberdeen, North ....	W. A. Hunter .....	2	..	..	..	..	..	145,136
„ South .....	Professor J. Bryce .....	1	..	..	..	..	..	59,992
		1	..	..	..	..	..	61,631
		4	..	..	..	..	..	266,759
ARGYLL (1). <i>County Division (1).</i>								
Argyll .....	D. H. Macfarlane .....	1	..	..	..	..	..	61,183
AYR (4). <i>County Divisions (2).</i>								
Northern .....	Hon. T. H. Cochrane ....	..	..	..	1	..	..	75,801
Southern .....	E. Wason .....	1	..	..	..	..	..	88,785
<i>Boroughs (2).</i>								
Ayr Group .....	W. Birkmyre .....	1	..	..	1	..	..	164,586
Kilmarnock Group ..	S. Williamson.....	1	..	..	..	..	..	46,200
		1	..	..	..	..	..	79,828
		3	..	..	1	..	..	290,614

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paran'lite	
BANFF (1). <i>County Division (1).</i> Banff .....	Sir W. Wedderburn .....	1	..	..	..	..	..	52,663
BERWICK (1). <i>County Division (1).</i> Berwick .....	Rt. Hon. E. Marjoribanks..	1	..	..	..	..	..	32,368
BUTE (1). <i>County Division (1).</i> Bute .....	A. G. Smith, Q.C. ....	..	..	1	..	..	..	18,217
CAITHNESS (2). <i>County Division (1).</i> Caithness .....	Dr. G. B. Clark .....	1	..	..	..	..	..	28,587
<i>Borough (1).</i> Wick Group .....	Sir J. Pender .....	..	..	..	1	..	..	18,103
		1	..	..	1	..	..	46,690
CLACKMANNAN and KINROSS (1). <i>County Division (1).</i> Clackm'n'an & Kinross	Rt. Hon. J. B. Balfour ....	1	..	..	..	..	..	44,309
DUMBARTON (1). <i>County Division (1).</i> Dumbarton.....	Captain J. Sinclair .....	1	..	..	..	..	..	77,446
DUMFRIES (2). <i>County Division (1).</i> Dumfries.....	W. J. Maxwell .....	..	..	..	1	..	..	55,290
<i>Borough (1).</i> Dumfries Group ....	R. T. Reid, Q.C.....	1	..	..	..	..	..	26,183
		1	..	..	1	..	..	81,473
EDINBURGH (6). <i>County Division (1).</i> Midlothian .....	Rt. Hon. W. E. Gladstone.	1	..	..	..	..	..	86,839
<i>Boroughs (5).</i> Edinburgh, Central ..	W. Mc. Ewan .....	1	..	..	..	..	..	63,392
" East ....	Robert Wallace .....	1	..	..	..	..	..	61,931
" South ....	Herbert W. Paul .....	1	..	..	..	..	..	82,337
" West ....	Viscount Wolmer .....	..	..	..	1	..	..	53,565
Leith Group .....	Munro Ferguson .....	1	..	..	..	..	..	84,770
		5	..	..	1	..	..	432,834

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
ELGIN & NAIRN (2). <i>County Division (1).</i>								
Elgin and Nairn ....	J. Seymour Keay .....	1	..	..	..	..	..	37,613
<i>Borough (1).</i>								
Elgin Group .....	A. Asher, Q.C. ....	1	..	..	..	..	..	33,292
		2	..	..	..	..	..	70,905
FIFE (4). <i>County Divisions (2).</i>								
Eastern .....	H. H. Asquith, Q.C. ....	1	..	..	..	..	..	50,996
Western .....	A. Birrell .....	1	..	..	..	..	..	58,458
<i>Boroughs (2).</i>								
Kirkcaldy Group ....	J. H. Dalziel .....	2	..	..	..	..	..	109,454
St. Andrews Group ..	H. T. Anstruther .....	1	..	..	..	..	..	36,901
		..	..	..	1	..	..	18,941
		3	..	..	1	..	..	165,296
FORFAR (4). <i>County Division (1).</i>								
Forfar .....	Sir J. C. Rigby, Q.C. ....	1	..	..	..	..	..	67,515
<i>Boroughs (3).</i>								
Dundee (2) .....	John Leng .....	1	..	..	..	..	..	153,051
	E. Robertson .....	1	..	..	..	..	..	
Montrose Group ....	J. S. Will, Q.C. ....	1	..	..	..	..	..	58,055
		4	..	..	..	..	..	278,621
HADDINGTON (1). <i>County Division (1).</i>								
Haddington .....	R. B. Haldane, Q.C. ....	1	..	..	..	..	..	37,429
INVERNESS (2). <i>County Division (1).</i>								
Inverness .....	Dr. D. Macgregor .....	1	..	..	..	..	..	69,829
<i>Borough (1).</i>								
Inverness Group ....	Gilbert Beith .....	1	..	..	..	..	..	28,071
		2	..	..	..	..	..	97,900
KINCARDINE (1). <i>County Division (1).</i>								
Kincardine .....	J. W. Crombie .....	1	..	..	..	..	..	34,438
KIRKCUDBRIGHT (1). <i>County Division (1).</i>								
Kirkcudbright .....	M. J. Stewart .....	..	..	1	..	..	..	32,670

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
<b>LANARK (13).</b>								
<i>County Divisions (6).</i>								
Govan .....	John Wilson .....	1	..	..	..	..	..	78,512
Mid .....	J. Wynford Philipps .....	1	..	..	..	..	..	71,258
North-Eastern .....	Donald Crawford .....	1	..	..	..	..	..	85,035
North-Western .....	Graeme Whitelaw .....	..	..	1	..	..	..	75,019
Partick .....	J. Parker Smith.....	..	..	..	1	..	..	77,136
Southern .....	J. H. C. Hozier .....	..	..	1	..	..	..	52,032
		3	..	2	1	..	..	438,992
<i>Boroughs (7).</i>								
Glasgow, Blackfriars & Hutcheson- town.....	A. D. Provand .....	1	..	..	..	..	..	73,784
„ Bridgeton ..	Rt. Hon. Sir G. Trevelyan.	1	..	..	..	..	..	81,396
„ Camlachie ..	Alexander Cross .....	..	..	..	1	..	..	71,157
„ Central ....	J. G. A. Baird.....	..	..	1	..	..	..	75,379
„ College ....	Dr. Charles Cameron ....	1	..	..	..	..	..	98,047
„ St. Rollox ..	Sir James Carmichael ....	1	..	..	..	..	..	94,569
„ Tradeston ..	A. C. Corbett .....	..	..	..	1	..	..	70,649
		7	..	3	3	..	..	1,003,973
<b>LINLITHGOW (1).</b>								
<i>County Division (1).</i>								
Linlithgow .....	Captain Hope .....	..	..	1	..	..	..	46,955
<b>ORKNEY AND SHET- LAND (1).</b>								
<i>County Division (1).</i>								
Orkney and Shetland..	L. Lyell .....	1	..	..	..	..	..	54,807
<b>PEEBLES AND SEL- KIRK (1).</b>								
<i>County Division (1).</i>								
Peebles and Selkirk ..	W. Thorburn .....	..	..	..	1	..	..	19,074
<b>PERTH (3).</b>								
<i>County Divisions (2)</i>								
Eastern .....	Sir J. Kinloch.....	1	..	..	..	..	..	43,645
Western .....	Sir D. Currie .....	..	..	..	1	..	..	47,916
		1	..	..	1	..	..	91,561
<i>Borough (1).</i>								
Perth .....	W. Whitelaw .....	..	..	1	..	..	..	29,899
		1	..	1	1	..	..	121,460

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranite	
RENFREW (4).								
County Divisions (2).								
Eastern .....	H. Shaw-Stewart .....	..	..	1	..	..	..	66,137
Western .....	C. B. Renshaw .....	..	..	1	..	..	..	56,622
Boroughs (2).		..	..	2	..	..	..	122,759
Greenock .....	Sir T. Sutherland .....	..	..	..	1	..	..	63,096
Paisley .....	W. Dunn .....	1	..	..	..	..	..	66,418
		1	..	2	1	..	..	252,273
ROSS & CROMARTY (1).								
County Division (1).								
Ross and Cromarty ..	J. G. Weir .....	1	..	..	..	..	..	71,432
ROXBURGH (2).								
County Division (1).								
Roxburgh .....	Hon. M. Napier .....	1	..	..	..	..	..	34,537
Borough (1).								
Hawick Group .....	Thomas Shaw .....	1	..	..	..	..	..	42,244
		2	..	..	..	..	..	76,781
STIRLING (3).								
County Division (1).								
Stirling .....	W. Jacks .....	1	..	..	..	..	..	86,293
Boroughs (2).								
Falkirk Group .....	H. Smith .....	1	..	..	..	..	..	65,346
Stirling Group .....	H. Campbell-Bannerman ..	1	..	..	..	..	..	39,987
		3	..	..	..	..	..	191,626
SUTHERLAND (1).								
County Division (1).								
Sutherland .....	A. Sutherland .....	1	..	..	..	..	..	21,267
WIGTOWN (1).								
County Division (1).								
Wigtown .....	Sir H. E. Maxwell .....	..	..	1	..	..	..	35,989
UNIVERSITIES (2).								
Edinbro' & St. Andr'ws	Sir C. Pearson .....	..	..	1	..	..	..	....
Glasgow and Aberdeen	J. A. Campbell .....	..	..	1	..	..	..	....
		..	..	2	..	..	..	....

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parnellite	
IRELAND.								
ANTRIM (8).								
County Divisions (4).								
Eastern .....	Captain J. Mc.Calmont.....	..	..	1	..	..	..	52,032
Mid .....	The Hon. R. Torrens O'Neill ..	..	..	1	..	..	..	50,027
Northern.....	C. C. Connor .....	..	..	1	..	..	..	51,090
Southern .....	W. G. E. Macartney .....	..	..	1	..	..	..	51,887
		..	..	4	..	..	..	205,036
Boroughs (4).								
Belfast, East .....	G. W. Wolff.....	..	..	1	..	..	..	85,661
„ North .....	Sir Edward Harland.....	..	..	1	..	..	..	67,585
„ South .....	W. Johnston .....	..	..	1	..	..	..	58,508
„ West .....	Arnold Forster .....	..	..	..	1	..	..	61,360
		..	..	7	1	..	..	478,150
ARMAGH (3).								
County Divisions (3).								
Mid .....	D. Plunket Barton, Q.C. ...	..	..	1	..	..	..	45,264
Northern.....	Colonel Saunderson .....	..	..	1	..	..	..	49,157
Southern .....	E. M'Hugh.....	..	..	..	..	1	..	43,219
		..	..	2	..	1	..	137,640
CARLOW (1).								
County Division (1).								
Carlow .....	J. Hammond .....	..	..	..	..	1	..	40,936
CAVAN (2).								
County Divisions (2).								
Eastern .....	S. Young .....	..	..	..	..	1	..	54,402
Western .....	E. F. V. Knox .....	..	..	..	..	1	..	57,515
		..	..	..	..	2	..	111,917
CLARE (2).								
County Divisions (2).								
Eastern .....	W. Redmond .....	..	..	..	..	..	1	61,196
Western .....	J. R. Maguire .....	..	..	..	..	..	1	63,287
		..	..	..	..	..	2	124,483

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranlite	
<b>CORK (9).</b>								
<i>County Divisions (7).</i>								
Eastern .....	Captain Donnilan .....	..	..	..	..	1	..	49,710
Mid .....	Doctor C. Tanner .....	..	..	..	..	1	..	49,462
Northern.....	J. C. Flynn.....	..	..	..	..	1	..	49,248
North-Eastern .....	Dr. Commins .....	..	..	..	..	1	..	49,873
Southern .....	Edward Barry .....	..	..	..	..	1	..	47,215
South-Eastern .....	W. Abraham .....	..	..	..	..	1	..	47,030
Western .....	J. Gilhooly .....	..	..	..	..	1	..	48,623
<i>Boroughs (2).</i>								
Cork (2) .....	William O'Brien .....	..	..	..	..	1	..	97,281
	Maurice Healy .....	..	..	..	..	1	..	
.. .. 9 .. 438,432								
<b>DONEGAL (4).</b>								
<i>County Divisions (4).</i>								
Eastern .....	Arthur O'Connor .....	..	..	..	..	1	..	45,417
Northern.....	J. Mains .....	..	..	..	..	1	..	46,248
Southern .....	J. G. S. MacNeill .....	..	..	..	..	1	..	46,624
Western .....	T. D. Sullivan.....	..	..	..	..	1	..	47,346
.. .. 4 .. 185,635								
<b>DOWN (5).</b>								
<i>County Divisions (4).</i>								
Eastern .....	J. A. Rentoul .....	..	..	1	..	..	..	52,274
Northern.....	Colonel Waring .....	..	..	1	..	..	..	54,179
Southern .....	M. M'Cartan .....	..	..	..	..	1	..	51,652
Western .....	Rt. Hon. Lord Arthur Hill.	..	..	1	..	..	..	50,890
<i>Borough (1).</i>								
Newry .....	P. G. Carvill .....	..	..	3	..	1	..	208,995
		..	..	..	..	1	..	13,691
.. .. 3 .. 2 .. 222,686								
<b>DUBLIN (6).</b>								
<i>County Divisions (2).</i>								
Northern.....	J. J. Clancy.....	..	..	..	..	..	1	75,009
Southern .....	Hon. Horace Plunkett ....	..	..	1	..	..	..	74,491
.. .. 1 .. .. 1 149,500								
<i>Boroughs (4).</i>								
Dublin, College Green.	Dr. J. E. Kenny.....	..	..	..	..	..	1	67,923
„ Dublin Harbour	T. Harrington.....	..	..	..	..	..	1	71,530
„ St. Patrick's ..	William Field.....	..	..	..	..	..	1	64,611
„ St. Stphn's Gr'n	W. Kenny, Q.C. ....	..	..	..	1	..	..	65,652
.. .. 1 1 .. 4 419,216								



## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
<b>FERMANAGH. (2)</b>								
<i>County Divisions (2).</i>								
Northern.....	Richard M. Dane .....	..	..	1	..	..	..	37,799
Southern .....	J. Magittigan .....	..	..	..	..	1	..	36,371
		..	..	1	..	1	..	74,170
<b>GALWAY (5).</b>								
<i>County Divisions (4).</i>								
Connemara .....	P. J. Foley .....	..	..	..	..	1	..	50,503
Eastern .....	J. Roche .....	..	..	..	..	1	..	49,083
Northern .....	Colonel Nolan.....	..	..	..	..	..	1	51,924
Southern .....	J. D. Sheehy .....	..	..	..	..	1	..	46,243
<i>Borough (1).</i>								
Galway .....	J. Pinkerton .....	..	..	..	..	3	1	197,753
		..	..	..	..	1	..	16,959
		..	..	..	..	4	1	214,712
<b>KERRY (4).</b>								
<i>County Divisions (4).</i>								
Eastern .....	J. D. Sheehan.....	..	..	..	..	1	..	44,437
Northern.....	T. Sexton .....	..	..	..	..	1	..	43,417
Southern ..	D. Kilbride .....	..	..	..	..	1	..	45,588
Western .....	Sir G. T. Esmonde.....	..	..	..	..	1	..	45,694
		..	..	..	..	4	..	179,136
<b>KILDARE (2).</b>								
<i>County Divisions (2).</i>								
Northern.....	P. J. Kennedy .....	..	..	..	..	1	..	32,925
Southern .....	M. J. Minch .....	..	..	..	..	1	..	37,281
		..	..	..	..	2	..	70,206
<b>KILKENNY (3).</b>								
<i>County Divisions (2).</i>								
Northern.....	P. M'Dermott.....	..	..	..	..	1	..	35,645
Southern .....	P. A. Chance .....	..	..	..	..	1	..	37,894
<i>Borough (1).</i>								
Kilkenny .....	T. B. Curran .....	..	..	..	..	2	..	73,539
		..	..	..	..	1	..	13,722
		..	..	..	..	3	..	87,261
<b>KING'S COUNTY (2)</b>								
<i>County Divisions (2).</i>								
Birr .....	B. C. Molloy .....	..	..	..	..	1	..	33,992
Tullamore .....	Dr. J. F. Fox .....	..	..	..	..	1	..	31,571
		..	..	..	..	2	..	65,563

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parallite	
<b>LEITRIM (2).</b>								
<i>County Divisions (2).</i>								
North .....	P. A. M'Hugh .....	..	..	..	..	1	..	39,235
South .....	J. Tully .....	..	..	..	..	1	..	39,383
		..	..	..	..	2	..	78,618
<b>LIMERICK (3).</b>								
<i>County Divisions (2).</i>								
Eastern .....	J. Finucane .....	..	..	..	..	1	..	55,912
Western .....	W. Austin .....	..	..	..	..	1	..	56,865
		..	..	..	..	2	..	112,777
<i>Borough (1).</i>								
Limerick .....	F. A. O'Keefe .....	..	..	..	..	1	..	46,135
		..	..	..	..	3	..	158,912
<b>LONDONDERRY (3).</b>								
<i>County Divisions (2).</i>								
Northern .....	H. L. Mulholland .....	..	..	1	..	..	..	59,824
Southern .....	Sir T. Lea .....	..	..	..	1	..	..	58,985
		..	..	1	1	..	..	118,809
<i>Borough (1).</i>								
Londonderry .....	John Ross, Q.C. ....	..	..	1	..	..	..	33,200
		..	..	2	1	..	..	152,009
<b>LONGFORD (2).</b>								
<i>County Divisions (2).</i>								
Northern .....	Justin Mc.Carthy .....	..	..	..	..	1	..	26,735
Southern .....	Hon. E. Blake .....	..	..	..	..	1	..	25,912
		..	..	..	..	2	..	52,647
<b>LOUTH (2).</b>								
<i>County Divisions (2).</i>								
Northern .....	Timothy Healy .....	..	..	..	..	1	..	37,571
Southern .....	D. Ambrose .....	..	..	..	..	1	..	33,467
		..	..	..	..	2	..	71,038
<b>MAYO (4).</b>								
<i>County Divisions (4).</i>								
Eastern .....	John Dillon .....	..	..	..	..	1	..	52,454
Northern .....	D. Crilly .....	..	..	..	..	1	..	53,662
Southern .....	J. F. X. O'Brien .....	..	..	..	..	1	..	55,987
Western .....	Dr. Robert Ambrose .....	..	..	..	..	1	..	56,931
		..	..	..	..	4	..	219,034

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paran'life	
<b>MEATH (2).</b> <i>County Divisions (2).</i>								
Northern .....	Mr. Gibney .....	..	..	..	..	1	..	38,854
Southern .....	Mr. Jordan .....	..	..	..	..	1	..	38,133
		..	..	..	..	2	..	76 987
<b>MONAGHAN (2).</b> <i>County Divisions (2).</i>								
Northern .....	Charles Diamond .....	..	..	..	..	1	..	43,536
Southern .....	F. O'Driscoll .....	..	..	..	..	1	..	42,670
		..	..	..	..	2	..	86 206
<b>QUEEN'S CO'NTY (2).</b> <i>County Divisions (2).</i>								
Leix .....	M. A. MacDonell .....	..	..	..	..	1	..	32,060
Ossory .....	E. Crean .....	..	..	..	..	1	..	32,823
		..	..	..	..	2	..	64 883
<b>ROSCOMMON (2).</b> <i>County Divisions (2).</i>								
Northern .....	M. Bodkin .....	..	..	..	..	1	..	56,706
Southern .....	L. P. Hayden .....	..	..	..	..	..	1	57,691
		..	..	..	..	1	1	114,397
<b>SLIGO (2).</b> <i>County Divisions (2).</i>								
Northern .....	B. Collery .....	..	..	..	..	1	..	48,686
Southern .....	Thomas Curran .....	..	..	..	..	1	..	49,327
		..	..	..	..	2	..	98,013
<b>TIPPERARY (4).</b> <i>County Divisions (4).</i>								
Eastern .....	T. J. Condon .....	..	..	..	..	1	..	44,738
Mid .....	Mr. Hogan .....	..	..	..	..	1	..	43,900
Northern .....	P. J. O'Brien .....	..	..	..	..	1	..	43,425
Southern .....	F. Mandeville .....	..	..	..	..	1	..	41,125
		..	..	..	..	4	..	173,188
<b>TYRONE (4).</b> <i>County Divisions (4).</i>								
Eastern .....	W. J. Reynolds .....	..	..	..	..	1	..	44,760
Mid .....	M. J. Kenny .....	..	..	..	..	1	..	43,404
Northern .....	Lord F. Hamilton .....	..	..	1	..	..	..	42,403
Southern .....	T. W. Russell .....	..	..	..	1	..	..	40,834
		..	..	1	1	2	..	171,401

## HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parnellite	
<b>WATERFORD (3).</b>								
<i>County Divisions (2).</i>								
Eastern .....	P. J. Power .....	..	..	..	..	1	..	33,347
Western .....	Alfred Webb .....	..	..	..	..	1	..	37,191
<i>Borough (1).</i>								
Waterford .....	J. E. Redmond .....	..	..	..	..	2	..	70,538
		..	..	..	..	1	..	27,713
		..	..	..	..	2	1	98,251
<b>WESTMEATH (2).</b>								
<i>County Divisions (2).</i>								
Northern.....	J. Tuite .....	..	..	..	..	1	..	33,735
Southern .....	D. Sullivan.....	..	..	..	..	1	..	31,374
		..	..	..	..	2	..	65,109
<b>WEXFORD (2).</b>								
<i>County Divisions (2).</i>								
Northern.....	Thomas Healy .....	..	..	..	..	1	..	55,357
Southern .....	Peter Ffrench.....	..	..	..	..	1	..	56,421
		..	..	..	..	2	..	111,778
<b>WICKLOW (2).</b>								
<i>County Divisions (2).</i>								
Eastern .....	J. Sweetman .....	..	..	..	..	1	..	31,382
Western .....	James O'Connor.....	..	..	..	..	1	..	30,754
		..	..	..	..	2	..	62,136
<b>UNIVERSITIES.</b>								
Dublin University (2) {	Rt. Hon. D. R. Plunkett ..	..	..	1	..	..	..	....
	E. Carson, Q.C. ....	..	..	1	..	..	..	....
		..	..	2	..	..	..	....

The General Election of 1892, with corrections to December, shows that the Liberal gain was 52, or equal to 104 on a division, giving Mr. Gladstone a majority of 38, as shown below:—

## AT DISSOLUTION, JUNE, 1892.

Conservatives	302	} = 368 Ministerialists.
Lib. Unionists	66	
Liberals	216	} = 302 Opposition.
Nationalists..	86	
Ministerialist Majority		66

GENERAL ELECTION, 1892,  
With Corrections to December, 1893.

Liberals	273	} = 354
Irish Nationalists	72	
Parnellites	9	
Conservatives	269	} = 316
Dissentient Liberals	47	
	670	38

## SUMMARY.

	COUNTIES.							BOROUGHS.							UNIVERSITIES.		TOTALS.				
	Members.							Members.							Members.		Members.				
	Liberal.	Labour.	Conservative.	Liberal U.	Nationalist.	Parnellite.	Total.	Liberal.	Labour.	Conservative.	Liberal U.	Nationalist.	Parnellite.	Total.			Liberal.	Labour.	Conservative.	Liberal U.	Nationalist.
England ..	98	6 113	17	..	..	234	13,838,248	87	4 119	15	1	..	226	13,626,602	4	1	5 185	10 236	33	1	..
Wales ....	19	..	..	..	..	19	996,583	9	..	2	..	..	11	521,427	..	..	28	..	2	..	..
Scotland ..	27	..	7	5	..	39	2,179,238	23	..	2	6	..	31	1,838,214	2	..	2 50	..	11	11	..
Ireland....	..	..	13	2	65	5 85	3,913,219	..	..	4	2	6	4 16	791,531	2	..	2	..	19	4	71
Totals.. 144	6 133	24	65	5 377	20,927,288	119	4 127	23	7	4 284	16,777,774	8	1	9 263	10 268	48	72	9 670	37,705,062		

## THE GENERAL

RETURN of CHARGES made to CANDIDATES at the GENERAL  
(both exclusive and inclusive of Returning Officers' Charges) in  
GRAND

	Number of Polling Districts and Stations.		Number of Polling Booths held in School-rooms.	RETURNING OFFICERS' CHARGES.					
	Districts.	Stations.		Cost of Polling Booths.	Cost of Dies, Ballot Papers, Boxes, Advertising, Placards, Stationery, &c.				
	1.	2.	3.	4.			5.		
				£	s.	d.	£	s.	d.
England and Wales.	7,177	9,872	7,889	30,248	6	7½	25,136	18	7½
Scotland....	711	1,303	1,049	2,001	1	0	2,690	14	3½
Ireland ....	748	1,479	385	4,725	7	1	5,607	16	1
Total ....	8,636	12,654	9,323	36,974	14	8½	33,435	9	0

	TOTAL EXPENSES OF CANDIDATES, EXCLUSIVE OF RETURNING OFFICERS' CHARGES.				
	Agents.	Clerks and Messengers.	Printing, Advertising, Stationery, Postage, and Telegrams.	Public Meetings.	Committee Rooms.
	11.	12.	13.	14.	15.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
England & Wales	152,331 17	286,216 4 2½	269,445 19 8	16,644 1 5	26,526 15 8½
Scotland	32,637 16	410,986 19 7½	32,120 19 4	2,769 9 11	2,534 19 3
Ireland..	7,883 9 1	1,774 6 5	8,790 16 7½	192 14 8	626 11 10
Total ..	192,853 2	798,977 10 3	310,357 15 7½	19,606 6 0	29,688 6 9½

	Number of Electors on Register :
England and Wales....	4,809,237
Scotland .....	604,898
Ireland .....	743,888
Total.....	6,158,023

	Maximum Scale allowed by Corrupt Practices Act, 1883:
England and Wales.....	£864,190
Scotland .....	129,460
Ireland .....	135,780
Total.....	£1,129,430

\*Note.—The Averages in Column 21 have been calculated from the Totals of

## ELECTION, 1892.

ELECTION, in 1892, specifying the TOTAL EXPENSES of CANDIDATES ENGLAND and WALES, SCOTLAND, and IRELAND.

## SUMMARY.

RETURNING OFFICERS' CHARGES.				Total Returning Officers' Charges as Paid, whether reduced by Taxation or otherwise.
Cost of Presiding Officers, Clerks, Counting Clerks, &c.	Fee charged by Returning Officer or his Official.	All other Charges of the Returning Officer.	TOTAL.	
6.	7.	8.	9.	10.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
66,402 7 2	19,256 9 2	14,131 2 11½	155,175 4 6½	154,165 14 7½
10,629 1 5	1,306 14 7	1,228 4 8½	17,855 16 0	17,855 16 0
9,686 6 4	2,610 13 0	3,818 17 10	28,260 1 5	25,520 12 0
86,717 14 11	23,173 16 9	19,178 5 6	201,291 1 11½	197,542 2 7½

TOTAL EXPENSES OF CANDIDATES, EXCLUSIVE OF RETURNING OFFICERS' CHARGES.			Total Expense of Candidates, inclusive of Returning Officers' Charges Paid.	Number of Votes Polled by Candidates	Average Cost per Vote Polled.
Miscellaneous Matters.	Personal Expenses.	Total Expenses.			
16.	17.	18.	19.	20.	21.
£ s. d.	£ s. d.	£ s. d.	£ s. d.		s. d.
50,931 9 0½	40,326 5 7½	642,422 12 10	796,588 7 5½	3,725,855	*4 2
6,761 19 3½	6,093 2 5½	93,905 6 2½	111,761 2 2½	475,130	*4 8
2,318 15 3½	2,995 11 11½	24,730 2 0½	50,182 10 5½	404,457	*2 8½
60,012 3 7½	49,415 0 0½	761,058 1 1	958,532 0 1½	4,605,442	*4 1

Members:		Candidates:	
England and Wales.....	495	England and Wales ....	958
Scotland .....	72	Scotland .....	151
Ireland .....	103	Ireland.....	198
Grand Total.....	670	Grand Total.....	1,307

Columns 19 and 20, exclusive of expenses incurred in uncontested constituencies.

# PARLIAMENTS OF THE UNITED KINGDOM.

Assembled.			Dissolved.			Duration.			Assembled.			Dissolved.			Duration.		
						Yrs. m. d.									Yrs. m. d.		
<b>GEORGE III.</b>									<b>WILLIAM IV.</b>								
1	Sept. 27, 1796*	June 29, 1802	5	9	2	11	Jan. 29, 1833	Dec. 30, 1834	1	11	1	12	Feb. 19, 1835	July 17, 1837	2	4	28
2	Oct. 29, 1802	Oct. 25, 1806	3	11	27	12	Feb. 19, 1835	July 17, 1837	<b>VICTORIA.</b>			13	Nov. 15, 1837	June 23, 1841	3	7	8
3	Dec. 15, 1806	April 23, 1807	0	4	14	14	Aug. 19, 1841	July 23, 1847	14	Aug. 19, 1841	July 23, 1847	5	11	4	14	14	Aug. 19, 1841
4	June 22, 1807	Sept. 29, 1812	5	3	7	15	Nov. 18, 1847	July 1, 1852	15	Nov. 18, 1847	July 1, 1852	4	7	13	16	Nov. 4, 1852	Mar. 21, 1857
5	Nov. 24, 1812	June 10, 1818	5	6	16	17	Nov. 4, 1852	Mar. 21, 1857	17	Nov. 4, 1852	Mar. 21, 1857	4	4	17	18	April 30, 1857	April 23, 1859
6	Jan. 14, 1819	Feb. 29, 1820	1	1	15	18	May 31, 1859	July 6, 1865	18	May 31, 1859	July 6, 1865	6	1	6	19	Feb. 1, 1866	Nov. 11, 1868
<b>GEORGE IV.</b>						20	Dec. 1, 1866	Nov. 11, 1868	20	Dec. 1, 1866	Nov. 11, 1868	2	9	10	21	Mar. 5, 1874	Mar. 25, 1880
7	April 23, 1820	June 2, 1826	6	1	9	21	Mar. 5, 1874	Mar. 25, 1880	21	Mar. 5, 1874	Mar. 25, 1880	6	0	20	22	April 29, 1880	Nov. 18, 1885
8	Nov. 14, 1826	July 24, 1830	3	8	10	22	April 29, 1880	Nov. 18, 1885	22	April 29, 1880	Nov. 18, 1885	5	6	20	23	Jan. 12, 1886	June 25, 1886
<b>WILLIAM IV.</b>						23	Jan. 12, 1886	June 25, 1886	23	Jan. 12, 1886	June 25, 1886	0	5	5	24	Aug. 5, 1886	June 28, 1892
9	Oct. 26, 1830	April 22, 1831	0	5	27	24	Aug. 5, 1886	June 28, 1892	24	Aug. 5, 1886	June 28, 1892	5	10	24	25	Ang. 4, 1892	
10	June 14, 1831	Dec. 3, 1832	1	5	9	25	Ang. 4, 1892		25	Ang. 4, 1892							

\*Parliament first met after the Union with Ireland, Jan. 22, 1801.

## LIST OF ADMINISTRATIONS IN THE PRESENT CENTURY.

Date.	Prime Minister.	Duration.		Chancellor.	Exchequer.	Home Secretary.	Foreign Sec.
		Yrs.	Days.				
Dec. 23, 1788	William Pitt ....	17	84	{Thurlow... {Loughboro'	William Pitt..	Portland .....	Grenville.
Mar. 17, 1801	Hy. Addington ..	3	59	Eldon .....	H. Addington.	Portland, Pelham, C. Yorke.	Hawkesbury.
May 15, 1804	William Pitt ....	1	272	Eldon .....	William Pitt..	Hawkesbury ..	{Harrowby. {Mulgrave.
Feb. 11, 1806	Lord Grenville..	1	48	Erskine....	Lord H. Petty	Spencer .....	{Charles J. Fox. {Visct. Howick.
Mar. 31, 1807	Duke of Portland	2	246	Eldon .....	S. Perceval ..	Hawkesbury ..	G. Canning.
Dec. 2, 1809	Spencer Perceval	2	190	Eldon .....	S. Perceval ..	R. Ryder .....	{Bathurst. {Wellesley.
June 9, 1812	Earl of Liverpool	14	319	Eldon .....	{N. Vansittart. {F. J. Robinson	Sidmouth .....	Castlereagh.
Apr. 24, 1827	George Canning.	0	184	Lyndhurst.	J. Canning ..	{Launceston ..	Dudley.
Sept. 5, 1827	Visct. Goderich..	0	142	Lyndhurst.	J. C. Herries.	Lansdowne ....	Dudley.
Jan. 25, 1828	D. of Wellington.	2	301	Lyndhurst.	H. Goulburn..	Robert Peel ....	{Aberdeen. {Palmerston.
Nov. 22, 1830	Earl Grey .....	3	238	Brougham.	Althorp .....	Melbourne ....	Palmerston.
July 18, 1834	Visct. Melbourne	0	161	Brougham.	Althorp .....	Duncannon ....	Palmerston.
Dec. 26, 1834	Sir Robert Peel..	0	113	Lyndhurst.	Sir R. Peel ..	H. Goulburn ..	Wellington.
Apr. 18, 1835	Visct. Melbourne	6	141	{In Comm... {Cottenham	{F. S. Rice .....	Lord J. Russell..	Palmerston.
Sept. 6, 1841	Sir Robert Peel..	4	803	Lyndhurst.	H. Goulburn..	Sir J. Graham..	Aberdeen.
July 6, 1846	Ld. John Russell	5	236	{Cottenham {Truro .....	Sir C. Wood..	Sir George Grey	{Palmerston. {Grenville.
Feb. 27, 1852	Earl of Derby ..	0	305	St. Leonards	B. Disraeli ..	S. H. Walpole ..	Malmesbury.
Dec. 28, 1852	Earl of Aberdeen	2	44	Cranworth ..	W. Gladstone.	Palmerston ....	{Lord J. Russell. {Clarendon.
Feb. 10, 1855	Lord Palmerston	3	15	Cranworth ..	{W. Gladstone. {Sir G. C. Lewis	Sir George Grey	Clarendon.
Feb. 35, 1858	Earl of Derby ..	1	113	Chelmsford.	B. Disraeli ..	S. H. Walpole ..	Palmerston.
June 18, 1859	Lord Palmerston	6	141	{Campbell {Westbury ..	W. Gladstone.	{Sir G. C. Lewis. {Sir George Grey.	Russell.
Nov. 6, 1865	Earl Russell ....	0	242	Cranworth ..	W. Gladstone.	Sir George Grey	Clarendon.
July 6, 1866	Earl of Derby ..	1	236	Chelmsford.	B. Disraeli ..	{S. H. Walpole .. {Gathorne Hardy.	Stanley.
Feb. 27, 1868	Benjamin Disraeli	0	281	Cairns .....	G. W. Hunt ..	G. Hardy .....	Stanley.
Dec. 9, 1868	W. E. Gladstone.	5	74	{Hatherley .. {Selborne ..	{Robert Lowe.. {W. Gladstone..	{H. A. Bruce .... {Robert Lowe....	{Clarendon. {Grenville.
Feb. 21, 1874	{Benjamin Disraeli {Earl Beaconsfield.	6	67	Cairns ....	S. Northcote..	R. A. Cross ....	{Derby. {Salisbury.
Apr. 28, 1880	W. E. Gladstone.	5	57	Selborne ..	{W. Gladstone. {H. C. E. Childers	Sir W. Harcourt	Grenville.
June 24, 1885	Mrg. of Salisbury	0	227	Halsbury ..	Hicks-Beach ..	R. A. Cross ....	Salisbury.
Feb. 7, 1886	W. E. Gladstone.	0	139	Herschel ..	W. Harcourt..	H. C. E. Childers	Rosebery.
July 24, 1886	Mrg. of Salisbury	6	17	Halsbury ..	{Ld. Churchill. {G. J. Goschen.	H. Matthews ..	{Idesleigh. {Salisbury.
Aug. 15, 1892	W. E. Gladstone.			Herschel ..	W. Harcourt..	H. H. Asquith..	Rosebery.



## PRESIDENTS OF THE UNITED STATES OF AMERICA.

	YEAR.
<i>Declaration of Independence</i> .....	4th July, 1776
General Washington first President.....	1789 and 1793
John Adams .....	1797
Thomas Jefferson .....	1801 and 1805
James Madison .....	1809 and 1813
James Monroe .....	1817 and 1821
John Quincy Adams .....	1825
Gen. Andrew Jackson .....	1829 and 1833
Martin Van Buren .....	1837
Gen. William Henry Harrison (died 4th April) .....	1841
John Tyler (previously Vice-President) .....	1841
James Knox Polk .....	1845
General Zachary Taylor (died 9th July, 1850) .....	1849
Millard Fillmore (previously Vice-President).....	1850
General Franklin Pierce .....	1853
James Buchanan .....	1857
Abraham Lincoln (assassinated 14th April, 1865).....	1861 and 1865
Andrew Johnson (previously Vice-President) .....	1865
General Ulysses S. Grant .....	1869 and 1873
Rutherford Richard Hayes, after long contest with Tilden .....	1877
General Garfield (shot July 2; died September 19) .....	1881
Chester A. Arthur, Vice-President, succeeded September 20 .....	1881
Grover Cleveland .....	1885
General Benjamin Harrison .....	1889
Grover Cleveland .....	1893

The United States of America form a Federal Republic, consisting of 38 partially independent States, divisible as follows:—6 Eastern, or New England, 4 Middle, 10 Southern, 18 Western; and 1 Federal district, and 8 organised Territories, the centre of North America.

The area in English square miles is estimated at 5,034,459, or 1,942,053,760 acres, exclusive of the vast district of Alaska, comprising 369,529,600 acres. One-fourth only is civilised.

The estimated population of the whole of the Territories, including the States, according to the Census of 1890, was 62,622,250, every country under Heaven being represented. The increase in the ten years 1880–1890 was 12,466,467.

## FOREIGN MONIES AND THEIR ENGLISH EQUIVALENTS.

COUNTRY.	GOLD COINS. Denominations.	STERLING VALUE.	SILVER COINS. Denominations.	60½d., <i>i.e.</i> , Gold to Silver as 15·5 is to 1.	s. d.	Intrinsic Value with Silver per Troy Ounce.
* America .....	See United States .....	£ s. d.	Peso of 100 centesimos .....	3 11½		
Argentine Republic .....	Argentino or 5-peso piece .....	0 19 10	<i>P'lorin</i> or <i>gulden</i> of 100 kreutzer .....	1 11½		
* Austria-Hungary .....	Ducat .....	0 9 4	¾-florin .....	0 5½		
Belgium .....	8-florin or gulden piece .....	0 15 10½				
Brazil .....	See France, and footnote .....		1 milreis of 1,000 reis .....	2 0½		
Chili, Columbia, Uruguay ..	10 milreis .....	1 2 5½	1 peso of 100 centavos .....	3 11½		
China .....	doubloon or 5-peso piece .....	0 18 9	Tael of 10 mace or 100 condorin or 1000 cash ..	6 6½		
Denmark .....	10-crown piece .....	0 11 0½	1 crown of 100 ore .....	1 0½		
Egypt .....	100-piastre piece (Egyptian £) ..	1 0 3½	1 piastre .....	0 2½		
Finland .....	10-markkaa piece .....	0 7 11½	1 markka of 100 penni .....	0 9½		
* France .....	10-franc piece .....	0 7 11½	5-franc piece .....	3 11½		
* German Empire .....	Crown of 10 reichsmarks .....	0 9 9½	1 franc of 100 centimes .....	0 8½		
* Great Britain .....	Sovereign of 20 shillings .....	1 0 0	1 reichsmark or mark of 100 pfennige .....	0 10½		
* Greece .....	See France, and footnote .....		Crown of 5 shillings .....	4 7½		
* Holland and Java .....	Ducat .....	0 9 4½	Shilling of 12 pence .....	0 11		
India .....	10-florin piece .....	0 16 6½	Rixdaler of 2½ florins .....	4 2		
Italy .....	Mohur of 15 rupees .....	1 9 2½	<i>P'lorin</i> of 100 cents .....	1 8		
Japan .....	See France, and footnote .....		Rupee of 16 annas, 64 pice, or 192 pies .....	1 10½		
Mexico .....	10-yen piece .....	2 0 11½	1 yen of 100 sen .....	4 3½		
* Netherlands .....	10-peso piece .....	2 0 5½	1 peso of 100 centavos .....	4 3½		
* Norway and Sweden .....	See Holland .....					
Ottoman Empire .....	Turkish pound of 100 piastres ..	0 18 0½	1 piastre of 40 paras .....	0 2		
Persia .....	Toman of 200 shahis .....	0 9 5	Khrah of 20 shahis .....	0 8½		

Peru .....	10-sol piece .....	1 19 7 $\frac{3}{4}$	Sol of 10 dineros or 100 cents .....	3 11 $\frac{1}{2}$	Intrinsic Value with Silver per Troy Ounce.
*Portugal .....	Crown of 10 milreis .....	2 4 4 $\frac{1}{2}$	<i>Teston</i> of 100 reis .....	0 4 $\frac{1}{2}$	
Roumania .....	See France, and footnote.				
Russia .....	Imperial of 10 roubles .....	1 11 9	(Rouble of 100 kopecks .....	3 2	
Servia and Bulgaria .....	See France, and footnote.		<i>Tchetvertak</i> or $\frac{1}{4}$ rouble .....	0 9 $\frac{1}{2}$	
*Spain .....	Doublon of 10 escudos .....	1 0 7 $\frac{1}{2}$	Escudo (or $\frac{1}{2}$ dollar) of 10 reals .....	2 0 $\frac{1}{2}$	
	25-peseta piece .....	0 19 10	Peseta of 100 centimos .....	0 8 $\frac{1}{2}$	
*Switzerland .....	See France, and footnote.				
Tunis .....	10-piastre piece .....	0 4 9 $\frac{1}{2}$	Piastre .....	0 6	
Turkey .....	See Ottoman Empire.		Trade dollar .....	4 3 $\frac{3}{4}$	
*United States .....	Eagle of 10 dollars .....	2 1 1 $\frac{1}{2}$	Dollar of 100 cents .....	4 2 $\frac{3}{4}$	
Uruguay .....	See Chili, and footnote.		( $\frac{1}{2}$ dollar of 50 cents .....	1 11 $\frac{1}{2}$	
Venezuela .....	See Peru, and footnote.				

## EXPLANATORY NOTES.

[FRANCE, Belgium, Italy, Greece, and Switzerland constitute what is known as the "Latin" Union, and their coins are alike in weight and fineness, differing occasionally in name. The same system has been in part adopted by Spain, Servia, Bulgaria, Russia, and Roumania, but they have not joined the Union. Francs and centimes of France, Belgium, and Switzerland are designated lire and centesimi in Italy; drachmai and lepta in Greece; dinars and paras, Servia; pesetas and centimos in Spain; leys and banis in Roumania; leva and stotinkis in Bulgaria.

Norway, Sweden, and Denmark employ coins of the same weight and fineness, their names being also alike. Most of the South American States possess a standard coin, equal in weight and fineness to the silver 5-fr. piece, generally termed a "peso." In Hayti the corresponding coin is a "gourde."

Every denomination of English money is current in all British colonies. The exchange value of the moneys of those countries indicated by a \* is determined by the rate of exchange for the day, and may be taken as approximately that given in the last column. The rate given in the daily papers generally represents the number of the standard coins

(those printed in italics) that are equivalent to one sovereign. The Spanish rate is given in terms of the old dollar (= 2 escudos). The value of other silver coins is approximately determined by the market value of silver, and may be found in the column headed "Intrinsic Value with Silver at per Troy Ounce." The exchange value of the rupee depends on the rate for "India Council Bills." In "bimetallic" countries pure gold is generally taken as being worth 15 $\frac{1}{2}$  times its weight of pure silver. This proportion corresponds to giving standard silver a constant value of 60 $\frac{1}{2}$ d. See last column of table.

## THE INDIAN

## AREA AND POPULATION OF BRITISH TERRITORY, REVENUE

NOTE.—The figures are approximate, and in all the columns except the first  
(From Official Sources.) For explanation

YEARS.	Area in Square Miles. <i>a</i>	Population. <i>b</i>	REVENUE.					TOTAL.
			Land Revenue. <i>c</i>	Opium.	Taxes. <i>d</i>	Public Works. <i>e</i>	Other Receipts. <i>f</i>	
1846-7....	694,000	154.79	14.53	3.68	5.75	—	1.30	25.26
1847-8....	699,000		15.00	2.73	5.75	—	1.19	24.67
1848-9....	771,000		14.83	3.91	5.31	—	1.18	25.23
1849-50 ..	772,000		15.79	4.50	5.85	—	1.27	27.41
1850-1....	776,000		16.27	3.79	5.72	—	1.77	27.55
1851-2....			16.24	4.26	5.77	—	1.56	27.83
1852-3....	802,000		16.19	5.09	5.82	—	1.51	28.61
1853-4....	828,000		16.07	4.78	5.75	—	1.53	28.13
1854-5....	832,000		16.51	4.71	6.42	—	1.49	29.13
1855-6....			17.11	5.20	6.81	—	1.70	30.82
1856-7 <i>k</i> ..		179.13	17.91	5.01	6.86	.92	2.68	33.38
1857-8....			15.32	6.86	6.19	.48	2.86	31.71
1858-9....			18.12	6.15	7.79	.65	3.35	36.06
1859-60 ..	856,000		18.76	5.89	9.62	.72	4.72	39.71
1860-1....			18.51	6.68	12.66	.85	4.20	42.90
1861-2....			19.69	6.36	13.43	.59	3.76	43.83
1862-3....			19.57	8.06	13.55	.44	3.52	45.14
1863-4....			20.61 <i>c</i>	6.83	12.70	.46	4.01	44.61
1864-5....			20.44	7.36	13.30	.59	3.96	45.65
1865-6....			20.84	8.52	12.56	.92	6.10	48.94
1866-7 <i>l</i> ..		190.56	19.45	6.80	11.32	.54	4.01	42.12
1867-8....			20.32	8.92	13.38	.56	5.35	48.53
1868-9....			20.34	8.45	13.38	.55	6.54	49.26
1869-70 ..			21.56	7.95	14.06	.96	6.37	50.90
1870-1....			21.08	8.04	15.67	.92	5.70	51.41
1871-2....			21.02	9.26	14.21	.83	4.79	50.11
1872-3....	860,000		21.37	8.69	16.25	3.90	6.34	56.55
1873-4....			21.06	8.32	15.65	4.76	6.62	56.41
1874-5....			21.33	8.56	15.91	5.32	6.89	58.01
1875-6....			21.54	8.47	16.26	5.64	7.05	58.96

## CENSUS, 1891-2.

AND EXPENDITURE, AND SURPLUS OR DEFICIT, FOR 46 YEARS.

are given in millions and decimals of millions. The values are in Tens of Rupees.  
of references see foot of pages 598 and 599.

EXPENDITURE.							TOTAL.	Surplus.	Deficit.
Charges of Collection, &c.	Civil Administration. <i>g</i>	Interest.	Army.	Public Works. <i>h</i>	Famine.	Miscellaneous. <i>i</i>			
5.65	5.45	2.75	11.98	.26	—	.00	26.09	—	.83
6.20	5.87	2.89	11.19	.36	—	—	26.51	—	1.84
6.06	5.72	3.04	11.27	.40	—	.11	26.60	—	1.37
6.06	6.00	3.04	11.39	.35	—	.01	26.85	.56	—
6.22	6.18	3.24	10.83	.46	—	.00	26.93	.62	—
6.36	6.19	3.13	10.81	.61	—	—	27.10	.73	—
6.56	6.48	3.30	11.09	.55	—	—	27.98	.63	—
6.72	6.90	3.47	12.10	.90	—	—	30.09	—	1.96
7.39	7.08	2.92	11.62	1.94	—	—	30.95	—	1.82
7.20	7.21	3.07	11.95	2.43	—	—	31.86	—	1.04
6.87	5.88	2.94	12.78	4.34	—	1.04	33.85	—	.47
6.38	8.76	2.98	18.40	3.05	—	—	39.57	—	7.86
6.50	9.91	3.78	25.16	4.29	—	—	49.64	—	13.58
6.68	10.09	4.61	23.50	5.17	—	.43	50.48	—	10.77
7.63	9.89	4.99	18.57	5.37	—	.47	46.92	—	4.02
8.11	7.10	5.19	16.19	6.17	—	1.12	43.88	—	.05
8.49	7.39	5.47	14.89	5.97	—	1.11	43.32	1.82	—
8.97	7.72	5.10	14.55	7.05	—	1.14	44.53	.08	—
8.98	7.81	5.11	15.77	6.72	—	1.45	45.84	—	.19
8.45	8.67	5.21	16.76	5.13	—	1.95	46.17	2.77	—
7.64	8.35	4.89	15.82	6.13	—	1.81	44.64	—	2.52
8.95	9.22	5.74	16.10	7.42	—	2.11	49.54	—	1.01
9.25	9.99	5.65	16.27	8.28	—	2.59	52.03	—	2.77
9.23	10.31	5.61	16.33	6.89	—	2.41	50.78	.12	—
9.27	9.86	5.84	16.07	6.05	—	2.84	49.93	1.48	—
8.52	10.12	5.97	15.68	4.31	—	2.39	46.99	3.12	—
7.34	9.57	5.86	15.50	10.33	—	6.18	54.78	1.77	—
7.50	9.78	5.38	15.23	11.25	3.86	5.22	58.22	—	1.81
7.81	10.05	4.84	15.38	11.53	2.24	5.84	57.69	.32	—
7.87	10.32	4.83	15.70	12.57	.60	5.48	57.37	1.59	—

## THE INDIAN

## AREA AND POPULATION OF BRITISH TERRITORY, REVENUE

NOTE.—The figures are approximate, and in all the columns except the first

YEARS.	Area in Square Miles. <i>a</i>	Population. <i>b</i>	REVENUE.					
			Land Revenue. <i>c</i>	Opium	Taxes. <i>d</i>	Public Works. <i>e</i>	Other Receipts. <i>f</i>	TOTAL.
1876-7....			19-89	9-12	16-09	6 61	6 94	58-65
1877-8....			20-04	9-18	16-89	8-66	7-20	61-97
1878-9....			22-32	9-40	18-54	7 66	7-27	65-19
1879-80 ..			21-86	0-32	19-15	9-37	7 73	68-43
1880-1....		198-79	21-11	10-48	19-38	11-60	11 72	74-29
1881-2....			21-94	19-36	19-98	12-95	11-45	75-68
1882-3....	868,256		21-87	9-50	17-66	13-05	8-19	70-27
1883-4....			22-36	9 56	17 73	14-12	8 07	71-84
1884-5....			21-83	8 82	18-45	14 19	7-40	70 69
1885-6....			22-59	8 94	18-72	15 88	8-33	74-46
1886-7....	947,887		23-06	8-94	20-38	16-86	8-10	77-34
1887-8....			23-19	8-51	20-90	16 84	9 32	78-76
1888-9....			23-02	8-56	22-22	18-02	9-88	81-70
1889-90 ..			23-91	8-58	23-68	18 24	10-67	85-08
1890-1....			24-04	7-88	24-39	20-05	9-38	85-74
1891-2....		221,173	23-96	8-01	24-87	22-84	9-36	89-14
Total for 46 years .....			914-37	336-99	632-73	257-54	254-33	2,398 06

*a* Excluding Berar and Mysore.*b* The first census of all British India was taken in 1871. For the population figures of 1861 and 1851 an approximate figure, on the basis of the 1871 census, has been entered, to attain which deduction has been made for the population of recently acquired territory and for an annual increment to the population.*c* Including for the years previous to 1864-5, the receipts from recently acquired territory not separately classified; after 1862-3 Forest Receipts are also included. From 1877-8 the portion of Land Revenue due to Irrigation is excluded from this head and shown under Public Works.*d* Excise, Assessed, Provincial Rates, Customs, Salt, and Stamps. Local Funds were incorporated in the General Accounts in 1878-9 and caused an addition of over £2,000,000 to this head, the amount being balanced by sums entered under various heads on the expenditure side.*e* Including from 1876-7 Guaranteed Railway Traffic Receipts, and from 1877-8 the portion of Land Revenue due to Irrigation.

## CENSUS, 1891-2.

AND EXPENDITURE, AND SURPLUS OR DEFICIT, FOR 46 YEARS.—*con.*  
are given in millions and decimals of millions. The values are in Tens of Rupees.

EXPENDITURE.							TOTAL.	Surplus.	Deficit.
Charges of Collection, &c.	Civil Administration. <i>g</i>	Interest.	Army.	Public Works. <i>h</i>	Famine.	Miscellaneous. <i>i</i>			
8.40	10.61	5.05	16.46	12.86	2.14	5.72	61.24	—	2.59
8.32	10.46	5.15	17.30	13.50	5.34	6.17	66.24	—	4.27
7.47	10.46	5.40	17.94	14.67	.31	6.81	63.06	2.13	—
7.86	10.46	5.39	22.58	16.52	.10	6.75	69.66	—	1.23
8.05	10.67	4.63	28.93	19.19	.03	6.42	77.92	—	3.63
8.22	11.13	4.85	19.69	18.78	1.57	7.84	72.08	3.60	—
8.49	11.04	4.77	18.36	20.31	1.50	5.13	69.60	.67	—
8.49	11.36	4.52	18.12	20.06	1.52	5.89	69.96	1.88	—
9.56	11.74	4.62	16.96	20.47	1.55	6.18	71.08	—	0.39
9.80	12.24	4.33	20.10	21.84	1.50	7.46	77.27	—	2.81
9.75	12.70	4.31	19.52	23.36	.31	7.21	77.16	.18	—
9.44	12.91	5.44	20.42	24.65	.09	7.84	80.79	—	2.03
9.74	13.01	4.71	20.30	25.71	.08	8.11	81.66	.04	—
8.91	13.23	4.24	20.68	26.53	.60	8.28	82.47	2.61	—
9.53	13.38	4.19	20.69	26.39	.60	7.47	82.25	3.49	—
9.55	13.85	4.31	22.28	30.13	1.27	7.28	88.67	.47	—
366.44	433.12	206.75	769.21	481.25	25.21	156.26	2,438.24	30.68	70.86
								Net deficit 40.18	

*f* Forest, Registration, Tributes, Interest, Post Office, Telegraph, Mint, Receipts by Civil and Military Departments, and Miscellaneous.

*g* Including Minor Departments. Law and Justice, Police, Marine Education, &c. From 1870-1 to 1875-6 Allotments to Provincial Services are included.

*h* Previous to 1876-7 the figures include Guaranteed Railway Interest less Traffic Receipts; from 1876-7 the gross payments for Guaranteed Railway Interest is included.

*i* Including Post Office, Telegraph, Mint, Miscellaneous Civil Charges, Special Defence Works, and Provincial Adjustments.

*k* A change in the mode of preparing the accounts having been effected in 1856-7, the figures are given in the corrected form.

*l* The period of the financial year having been altered, the figures for 1886-7 are for eleven months only.

## RAILWAY ACCIDENTS.

PROPORTION OF PASSENGERS KILLED AND INJURED FROM CAUSES BEYOND THEIR OWN CONTROL.

THE FOLLOWING STATEMENT SHOWS THE PROPORTION OF PASSENGERS RETURNED AS KILLED AND INJURED FROM CAUSES BEYOND THEIR OWN CONTROL, IN PASSENGER-JOURNEYS, FOR THE YEARS 1874 TO 1892:—

YEAR.	Number of Passengers Killed and Injured from causes beyond their own control, from Accidents to Trains.		Number of Passenger Journeys (exclusive of Journeys by Season-ticket Holders).	Proportion returned as Killed and Injured (from causes beyond their own control) to number carried.	
	Killed.	Injured.		Killed.	Injured.
1874.....	86	1,613	477,840,411	1 in 5,556,284	1 in 296,243
1875.....	17	1,212	506,975,234	1 in 29,882,073	1 in 418,296
1876.....	38	1,279	538,287,295	1 in 14,165,455	1 in 420,865
1877.....	11	664	551,593,654	1 in 50,144,876	1 in 830,713
1878.....	24	1,173	565,024,455	1 in 23,542,685	1 in 481,692
1879.....	*75	602	562,732,890	1 in 7,503,105	1 in 934,772
1880.....	29	904	603,885,025	1 in 20,823,586	1 in 668,013
1881.....	23	987	622,160,000	1 in 27,050,435	1 in 630,354
1882.....	18	803	654,838,295	1 in 36,379,905	1 in 815,489
1883.....	11	662	683,718,137	1 in 62,156,194	1 in 1,032,806
1884.....	31	864	694,991,860	1 in 22,419,092	1 in 804,338
1885.....	6	436	697,213,031	1 in 116,202,171	1 in 1,599,112
1886.....	8	615	725,584,390	1 in 90,698,049	1 in 1,179,812
1887.....	25	538	733,670,000	1 in 29,346,800	1 in 1,363,699
1888.....	11	594	742,830,000	1 in 67,530,000	1 in 1,250,555
1889.....	†88	+1,016	775,183,073	1 in 8,808,875	1 in 762,975
1890.....	18	496	817,744,046	1 in 45,430,224	1 in 1,648,677
1891.....	5	875	845,463,668	1 in 169,092,733	1 in 966,244
1892.....	21	601	864,435,388	1 in 41,163,589	1 in 1,438,328

\* Including 79 persons lost in the Tay Bridge disaster in the year 1879. † Including 80 killed and 262 injured in a collision near Armagh.  
 Number of season tickets issued in 1892, 1,612,510.



## STAMPS, TAXES, EXCISE DUTIES, &amp;c.

## STAMP DUTIES.

	£	s.	d.
AFFIDAVIT, or Statutory Declaration, except declaration forming part of an application for a patent.....	0	2	6
AGREEMENT, or Memorandum of Agreement, under hand only, not otherwise charged .....	0	0	6
APPRAISEMENT, or VALUATION of any estate or effects where the amount of the appraisement shall not exceed £5.....	0	0	3
Not exceeding £10 .. 0 0 6	Not exceeding £50.....	0	2 6
„ 20 ..... 0 1 0	„ 100.....	0	5 0
„ 30 ..... 0 1 6	„ 200.....	0	10 0
„ 40 ..... 0 2 0	„ 500 .....	0	15 0
Exceeding £500.....		1	0 0
APPRENTICESHIP INDENTURES—On each instrument .....	0	2	6
[By the Customs and Inland Revenue Act, 1890, there is no longer an <i>ad valorem</i> stamp duty upon an instrument of apprenticeship where there is a premium or consideration.]			
ARMORIAL BEARINGS .....	1	1	0
If used on any carriage ..	2	2	0
BANKERS' NOTES payable on demand and re-issuable—Not above £1 ..	0	0	5
Not above £2 .....	0	0	10
Not exceeding £100 .....	0	8	6
BILLS OF EXCHANGE AND PROMISSORY NOTES, of any kind whatsoever except bank notes—Not exceeding £5 .....	0	0	1
Exceeding £5 and not exceeding £10 ..	0	0	2
„ 10 „ 25 .....	0	0	3
„ 25 „ 50 .....	0	0	6
„ 50 „ 75 .....	0	0	9
„ 75 „ 100 .....	0	1	0
Every £100, and also for any fractional part of £100, of such amount	0	1	0
By Stamp Act of 1850 (33 and 34 Vict., c. 97), the distinction between inland and foreign bills of exchange was abolished.			
BILL OF LADING .....	0	0	6
CERTIFICATE—Of goods, &c., being duly entered inwards .....	0	4	0
Of birth, marriage, or death (certified copy of) .....	0	1	0
DRAFT, or Order, or Letter of Credit, for payment of any sum to bearer or order, on demand .....	0	0	1
CHARTER PARTY .....	0	0	6
PASSPORT .....	0	0	6

## STAMPS, TAXES, EXCISE DUTIES, ETC.

## TRANSFERS.

Where the amount or value of the consideration for the sale does not exceed £5				£	s.	d.
				0	0	6
and does not exceed £10				£	s.	d.
Exceeds £5				0	1	0
" 10	"	15	0	1	6	
" 15	"	20	0	2	0	
" 20	"	25	0	2	6	
" 25	"	50	0	5	0	
" 50	"	75	0	7	6	
" 75	"	100	0	10	0	
" 100	"	125	0	12	6	
Exceeds £125				£	s.	d.
				0	15	0
" 150	"	175	0	17	6	
" 175	"	200	1	0	0	
" 200	"	225	1	2	6	
" 225	"	250	1	5	0	
" 250	"	275	1	7	6	
" 275	"	300	1	10	0	
" 300						
For every £50, and also for any fractional part of £50, of such amount or value				0	5	0
Conveyance or Transfer of any kind not described as above				0	10	0
MARRIAGE LICENSE, special, England and Ireland				5	0	0
" not special				0	10	0
MEDICINE VENDORS, Great Britain				0	5	0
[A separate license is required for each place where sold.]						

## PATENT LAWS OF GREAT BRITAIN.

PATENTS, DESIGNS, AND TRADE MARKS ACT, 1883.

(46 and 47 Vict., Ch. 57.)

Any person, whether a British subject or not, may make application for a Patent. Two or more persons may make a joint application, and a Patent may be granted to them jointly.

## GOVERNMENT FEES.

Fees on instruments for obtaining Patents and Renewals:—

(a) Up to Sealing—

On application for provisional protection	£1	0	0
On filing complete specification	3	0	0 £4 0 0

or,

On filing complete specification with first application	£4	0	0
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(b) Further before end of four years from the date of Patent—

On certificate of renewal (optional)	50	0	0
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(c) Further before end of seven years, or in the case of Patents granted after the commencement of this Act, before the end of eight years from date of Patent—

On certificate of renewal (optional)	50	0	0
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Or in lieu of the two fees of £50 each, the following annual fees:—

Before the expiration of—

4th year from date of Patent	5	0	0
5th	6	0	0
6th	7	0	0
7th	8	0	0
8th	9	0	0
9th	10	0	0
10th	11	0	0
11th	12	0	0
12th	13	0	0
13th	14	0	0

## STAMPS, TAXES, EXCISE DUTIES, ETC.

## HOUSE DUTY.

*On inhabited houses hitherto paying at the rate of 6d. for every 20s. of the annual value :—*

If annual rent does not exceed £40 the rate is reduced to ..... 0 0 2

If annual rent is £40 to £60 ..... 0 0 4

*On inhabited houses hitherto paying at the rate of 9d. :—*

If annual rent does not exceed £40 ... 0 0 3

If annual rent is £40 to £60 ..... 0 0 6

## INCOME TAX.

Incomes of £150 per annum (Schedules A C D and E) and upwards are taxed at the rate of 7d. in the £. Farmers in England (Schedule B), 3d. in the £; in Scotland and Ireland, 2½d. in the £.

*Exemption and Abatement.*—Incomes less than £150 a year are exempt.

On incomes amounting to £150 a year and less than £400 a year there is an abatement upon £120 of assessed income.

## AWARDS.

Where the amount or value of the matter in dispute shall not exceed £5 ..... 0 0 3

Not exceeding £10 ..... 0 0 6

„ 20 ..... 0 1 0

„ 30 ..... 0 1 6

„ 40 ..... 0 2 0

„ 50 ..... 0 2 6

„ 100 ..... 0 5 0

„ 200 ..... 0 10 0

„ 500 ..... 0 15 0

## SERVANTS.

For every male servant, without distinction of age ..... 0 15 0

## VARIOUS LICENSES AND DUTIES.

Dogs of any kind (penalty £5) .... 0 7 6

Game Licenses, if taken out after 31st July and before 1st November, to expire on the 31st July following ..... 3 0 0

After 31st July, expire 31st October .. 2 0 0

After 31st October, expire 31st July ..... 2 0 0

Gamekeepers .. 2 0 0

Game Dealer's License ..... 2 0 0

Gun (License to carry) ..... 0 10 0

## POSTAL REGULATIONS, SAVINGS BANKS, ETC.

	£	s.	d.
Hawkers and Pedlars, per year.....	2	0	0
House Agents, letting furnished houses above £25 a year .....	2	0	0
Passenger Vessels, on board which liquors and tobacco are sold, yearly	5	0	0
Pawnbrokers .....	7	10	0
Plate Dealers selling 2ozs. gold and 3ozs. silver, and upwards .....	5	15	0
"    "    under that weight .....	2	6	0
Retailers of Sweets .....	1	5	0
Retailers of Wine, England and Ireland.....	2	10	0
"    (Grocers) Scotland .....	2	4	1
Tobacco and Snuff, dealers in ..	0	5	3
[A separate license is required for each place where sold.]			
Vinegar Makers.....	5	5	0

## POSTAL REGULATIONS, SAVINGS BANKS, &amp;c.

## RATES OF POSTAGE.

To and from all parts of the United Kingdom, for prepaid letters :—

Not exceeding 1oz. ....	1d.	Exceeding 6ozs., not exceeding 8ozs. 3d.
Exceeding 1oz., not exceeding 2ozs. 1½d.		"    8    "    "    10    "    3½d.
"    2    "    "    4    "    2d.		"    10    "    "    12    "    4d.
"    4    "    "    6    "    2½d.		"    12    "    "    14    "    4½d.

and so on at the rate of ½d. for every additional 2ozs.

A letter posted unpaid is chargeable on delivery with double postage, and a letter posted insufficiently paid is chargeable with double the deficiency.

No letter is to exceed one foot six inches in length, nine inches in width, and six inches in depth, unless it be sent to or from a Government Office.

A penny stamp is now issued which can be used either as a postage or receipt stamp.

## INLAND BOOK AND CIRCULAR POST.

The Book Post rate is one halfpenny for every 2ozs. or fraction of 2ozs. Every Book Packet must be posted either without a cover or in a cover entirely open at the ends. No Book Packet may exceed 5lbs. in weight, or one foot six inches in length, nine inches in width, and six inches in depth, unless it be sent to or from a Government Office.

Any Book Packet which is found to contain a letter, or communication of the nature of a letter (not being a circular letter), or not wholly printed, or any enclosure sealed or in any way closed against inspection, or any other enclosure not allowed by the regulations of the Book Post, will be treated as a letter, and charged double the deficiency of the letter postage.

## POSTAL REGULATIONS, SAVINGS BANKS, ETC.

Circular Letters posted in covers entirely open at both ends, the whole or greater part of which are printed, engraved, lithographed, or type written, and which, according to the internal evidence, are being sent to several persons in identical terms, may be sent at book rate.

### EXPRESS DELIVERY SERVICES.

Letters and Parcels are now accepted for Express Delivery at a large number of post-offices. For fees and conditions, *see* the "Postal Guide."

### POSTAGE ON INLAND REGISTERED NEWSPAPERS.

*Prepaid Rate.*—On each Registered Newspaper, whether posted singly or in a packet, the postage when prepaid is one halfpenny; but a packet containing two or more Registered Newspapers is not chargeable with a higher rate of postage than would be chargeable on a Book Packet of the same weight—viz., one halfpenny for every 2ozs. or fraction of 2ozs.

### POST CARDS.

Inland Post Cards are sold at the following prices:—Stout Cards, five for 3d.; ten for 6d. Thin Cards, ten for 5½d.

Reply Stout Cards are sold at ten for a shilling. Reply Thin Cards at ten for 11d. Smaller numbers in proportion.

Foreign Post Cards are sold at the rates of 1d., 1½d., and 2d. each.

Foreign Reply Post Cards are sold at 2d., 3d., and 4d. each.

### POST-OFFICE TELEGRAMS.

The charge for Telegrams throughout the United Kingdom is 6d. for the first twelve words, which must include addresses of sender and receiver. It is not, however, necessary to telegraph sender's address; and by this omission an average of seven words may be sent for 6d.

Free addresses are abolished; numbers in addresses are counted as one word. After the first twelve words the charge is one halfpenny a word.

For the rates charged for Foreign Telegrams, *see* the "Post-office Guide," published quarterly.

### MONEY ORDERS FOR THE UNITED KINGDOM.

Money Orders are granted in the United Kingdom at the following rates:—

For a sum not exceeding £1 .....	2d.
For a sum exceeding £1 and not exceeding £2 .....	3d.
" " £2 " " £4 .....	4d.
" " £4 " " £7 .....	5d.
" " £7 " " £10 .....	6d.

POSTAL REGULATIONS, SAVINGS BANKS, ETC.

TELEGRAPHIC MONEY ORDERS.

Sums not exceeding £1.....	4d.
„ „ £2.....	6d.
„ „ £4.....	8d.
„ „ £7.....	10d.
„ „ £10.....	1s.

In addition to the above, the person at whose request the Telegraphic Money Order is issued will be required to pay the ordinary telegraphic rates.

POSTAL ORDERS.

Postal Orders are issued at the following rates :—On those for 1/- and 1/6 the charge is  $\frac{1}{2}$ d.; for 2/-, 2/6, 3/-, 3/6, 4/-, 4/6, 5/-, 7/6, 10/-, 10/6, the charge is 1d.; for 15/- and 20/-,  $1\frac{1}{2}$ d.

INLAND PARCEL POST.—POSTING OF PARCELS.

Parcels must be handed in at a post-office counter, and must not be dropped into a letter box. If a parcel marked “Parcel Post” is not posted in accordance with this regulation it will be charged on delivery with a fine of 1d.

All Parcels must be prepaid by stamps affixed by the senders, and the rates of postage are as follows :—

						s.	d.
For a Parcel not exceeding 1lb. in weight .....						0	3
For a Parcel exceeding 1lb. in weight and not exceeding 2lbs.						0	$4\frac{1}{2}$
„ „ 2lbs.	„	„	„	„	3lbs.	0	6
„ „ 3lbs.	„	„	„	„	4lbs.	0	$7\frac{1}{2}$
„ „ 4lbs.	„	„	„	„	5lbs.	0	9
„ „ 5lbs.	„	„	„	„	6lbs.	0	$10\frac{1}{2}$
„ „ 6lbs.	„	„	„	„	7lbs.	1	0
„ „ 7lbs.	„	„	„	„	8lbs.	1	$1\frac{1}{2}$
„ „ 8lbs.	„	„	„	„	9lbs.	1	3
„ „ 9lbs.	„	„	„	„	10lbs.	1	$4\frac{1}{2}$
„ „ 10lbs.	„	„	„	„	11lbs.	1	6

LIMITATION OF WEIGHT.

No Parcel exceeding 11lbs. in weight can be received for transmission.

LIMITATION OF SIZE.

No Parcel may exceed 3ft. 6in. in length, or 6ft. in length and girth combined. Thus, a Parcel 3ft. 6in. in length may not measure more than 2ft. 6in. in girth at its widest part; but a Parcel of shorter length, say 3ft., or 2ft. 8in., may measure respectively 3ft. or 3ft. 4in. in its widest girth.

## POSTAL REGULATIONS, SAVINGS BANKS, ETC.

### INLAND PATTERN AND SAMPLE POST.

Trade Patterns and Samples of Merchandise may be sent between places in the United Kingdom at the following rates of postage:—

For a Packet not exceeding 2ozs. ....	2d.
"      "      "      4ozs. ....	1d.
"      "      more than 4ozs. but not exceeding 6ozs. ....	1½d.
"      "      "      6ozs.      "      "      8ozs. ....	2d.

No Packet to exceed 8ozs. in weight. Limits of dimension are—12ft. by 8ft. 4in. If either of these conditions be infringed the Packet will not be forwarded, but returned to the sender; similar conditions as to insufficiently paid postage obtain in connection with the above.

### INLAND REGISTRATION AND COMPENSATION.

The Postmaster-General will (not in consequence of any legal liability, but voluntarily, and as an act of grace), subject to the rules hereinafter mentioned, give compensation up to a maximum limit of £50 for the loss and damage of Inland Registered Postal Packets of all kinds upon prepayment of a fee in addition to the postage. This fee either consists of or includes in each case the ordinary registration fee of 2d.; and the scale of fees and the respective limits of compensation are as follows:—Fee, 2d., Limit of Compensation, £5; 3d., £10; 4d., £15; 5d., £20; 6d., £25; 7d., £30; 8d., £35; 9d., £40; 10d., £45; 11d., £50.

### POST-OFFICE SAVINGS BANKS.

No deposit of less than a shilling is received, nor any pence, and not more than £30 in one year. No further deposit is allowed when the amount standing in depositor's name exceeds £200, exclusive of interest. Interest is allowed at the rate of 2½ per cent (or sixpence in the pound) per annum—that is at the rate of one halfpenny per pound per month. When the principal and interest reach to £200, no further interest is paid until the sum at the depositor's credit is reduced below that amount.

At every post-office in the United Kingdom forms for making small deposits are now issued gratuitously. Each form has twelve divisions, in each of which a penny postage stamp can be placed; when the twelve are filled in it is received at any Post-office Savings Bank as a shilling.

### GOVERNMENT STOCK INVESTMENTS.

Through the Post Office Savings Bank, depositors may invest only in 2½ per Cent Stock, 2½ per Cent Stock, 2½ (1905) Stock, and Local 3 per Cent Loans. Investment to £300 a year only is allowed through the Post Office. The buying and selling price may be taken from the daily newspapers. Commission is about one-eighth—2s. 6d per cent—and all applications respecting Stock investments should be addressed to the Comptroller, Savings Bank Department, General Post Office, London, E.C.

## BANK HOLIDAYS. LAW SITTINGS. ECLIPSES.

## REGISTERS OF BIRTHS, MARRIAGES, AND DEATHS.

These are now kept at Somerset House, and may be searched on payment of the fee of one shilling. If a certified copy of any entry be required, the charge for that, in addition to the shilling for the search, is two shillings and sevenpence, which includes a penny for stamp duty. The registers contain an entry of births, deaths, and marriages since 1st July, 1837.

## BANK HOLIDAYS, 1894.

## ENGLAND.

Easter Monday.....	March	26
Whit Monday .....	May	14
First Monday in August.....	August	6
Boxing Day (Wednesday) .....	December	26

## SCOTLAND.

New Year's Day ....	January	1
Good Friday .....	March	23
First Monday in May .....	May	7
First Monday in August ..	August	6
Christmas Day .....	December	25

## LAW SITTINGS, 1894.

	Begin.	End.
Hilary Sittings .....	January 11 .....	March 21.
Easter „ .....	April 3 .....	May 11.
Trinity „ .....	May 22 .....	Aug. 12.
Michael. „ .....	October 24 .....	Dec. 21.

## ECLIPSES, 1894.

In this year there will be two Eclipses of the Sun and two of the Moon, and a Transit of Mercury across the Sun's disc:—

- 1.—A partial Eclipse of the Moon, March 21st, invisible at Greenwich.
- 2.—An annular Eclipse of the Sun, April 6th, invisible at Greenwich.
- 3.—A partial Eclipse of the Moon, Sept. 15th, partly visible at Greenwich.
- 4.—A total Eclipse of the Sun, Sept. 29th, invisible at Greenwich.
- 5.—A Transit of Mercury across the Sun's disc, November 10th, partly visible at Greenwich.



MEMORANDA AS TO ACTS OF PARLIAMENT RESTRAINING  
EXPORTATION OF TOOLS &C. USED IN COTTON LINEN WOOLLEN  
AND SILK MANUFACTURES.

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BY Act of 14 Geo. III. c. 75 being "An Act to prevent the Exportation to Foreign Parts of Utensils made use of in the Cotton Linen Woollen and Silk Manufactures of this Kingdom" persons were prohibited from exporting "Tools or Utensils" used in the Cotton Linen Woollen and Silk Manufactures of the Kingdom.

By Act of 21 Geo. III. c. 37 being an Act to explain and amend the last-mentioned Act it was enacted—

That if at any time after the 24th day of June 1781 any person or persons in Great Britain or Ireland shall upon any pretence whatsoever load or put on board or pack or cause or procure to be laden put on board or packed in order to be loaded or put on board of any ship or vessel which shall not be bound directly to some port or place in Great Britain or Ireland or shall lade or cause or procure to be laden on board any boat or other vessel or shall bring or cause to be brought to any quay wharf or other place in order to be so laden or put on board any such ship or vessel *any machine engine tool press paper utensil or implement* whatsoever which now is or at any time or times hereafter shall or may be used in or proper for the preparing working pressing finishing or completing of the *Woollen Cotton Linen or Silk Manufactures* of this Kingdom or any or either of them or any other goods wherein Wool Cotton Linen or Silk or any or either of them are or is used or any part or parts of such machine engine tool press paper utensil or implement by what name or names soever the same shall be called or known; or any *model or plan or models or plans* of any such machine engine tool press paper utensil or implement or any part or parts thereof.

Any Justice might grant a warrant to seize the machines &c. and on conviction the person offending should forfeit the machines &c. and a sum of £200 and be imprisoned for twelve months without bail and until the forfeiture should be paid.

Penalties were also imposed on the Masters of Ships and Custom House Officers conniving at any offence and on persons making machines &c.

TABLE SHOWING SUMS PAYABLE IN FOREIGN CURRENCIES ON MONEY ORDERS  
ISSUED IN UNITED KINGDOM.

VALUE OF ENGLISH MONEY IN

English Money.			Belgium, France, and Algeria, Italy and Switzerland.	Germany and Heligoland.	Holland and Dutch East Indies.	Denmark, Iceland, Norway, and Danish West Indies.	Sweden.	Portugal, Azores, and Madeira.	Egypt.	United States, Canada, and Hawaii.
£	s.	d.	Francs. Cents.	Marks. Pfenn.	Florins. Cents.	Kroner. Ore.	Kroner. Ore.	Reis.	Piastres. Paras.	Dollars. Cents.
0	0	1	0 10	0 8	0 5	0 7	0 7	10	0 16	0 2
0	0	2	0 20	0 17	0 10	0 15	0 15	30	0 52	0 4
0	0	3	0 30	0 25	0 15	0 22	0 22	50	1 8	0 6
0	0	4	0 40	0 34	0 20	0 30	0 30	70	1 25	0 8
0	0	5	0 50	0 42	0 20	0 37	0 37	90	2 1	0 10
0	0	6	0 60	0 51	0 25	0 45	0 45	110	2 17	0 12
0	0	7	0 70	0 59	0 30	0 52	0 52	130	2 33	0 14
0	0	8	0 80	0 68	0 35	0 60	0 60	150	3 10	0 16
0	0	9	0 90	0 76	0 40	0 68	0 68	170	3 26	0 18
0	0	10	1 0	0 85	0 45	0 75	0 75	190	4 2	0 20
0	0	11	1 10	0 93	0 50	0 83	0 83	200	4 18	0 22
0	1	0	1 20	1 2	0 55	0 90	0 90	220	4 35	0 24
0	2	0	2 50	2 4	1 15	1 81	1 81	450	9 30	0 48
0	3	0	3 70	3 6	1 75	2 72	2 72	680	14 25	0 73
0	4	0	5 0	4 8	2 35	3 63	3 62	910	19 20	0 97
0	5	0	6 30	5 10	2 95	4 53	4 53	1,140	24 15	1 21
0	6	0	7 50	6 12	3 55	5 44	5 43	1,370	29 10	1 46
0	7	0	8 80	7 14	4 15	6 35	6 34	1,590	34 5	1 7
0	8	0	10 0	8 16	4 75	7 26	7 24	1,820	39 0	1 94
0	9	0	11 30	9 18	5 35	8 16	8 15	2,050	43 35	2 19
0	10	0	12 60	10 20	5 95	9 7	9 6	2,280	48 30	2 43
0	11	0	13 80	11 22	6 55	9 98	9 96	2,510	53 25	2 67
0	12	0	15 10	12 24	7 15	10 89	10 87	2,740	58 20	2 93
0	13	0	16 30	13 26	7 75	11 79	11 78	2,970	63 15	3 16
0	14	0	17 60	14 28	8 35	12 70	12 68	3,190	68 10	3 40
0	15	0	18 90	15 30	8 95	13 61	13 60	3,420	73 5	3 65
0	16	0	20 10	16 32	9 55	14 52	14 50	3,650	78 0	3 89
0	17	0	21 40	17 34	10 15	15 42	15 40	3,880	82 35	4 12
0	18	0	22 60	18 36	10 75	16 33	16 31	4,110	87 30	4 38
0	19	0	23 90	19 38	11 35	17 24	17 21	4,340	92 25	4 62
1	0	0	25 20	20 40	11 95	18 15	18 12	4,570	97 20	4 87
2	0	0	50 40	40 80	23 90	36 30	36 24	9,140	195 0	9 74
3	0	0	75 60	61 20	35 85	54 45	54 36	13,710	292 20	14 61
4	0	0	100 80	81 60	47 80	72 60	72 48	18,240	390 0	19 48
5	0	0	126 0	102 0	59 75	90 75	90 60	22,850	487 20	24 35
6	0	0	151 20	122 40	71 70	108 90	108 72	27,420	585 0	29 22
7	0	0	176 40	142 80	83 65	127 5	126 84	31,990	682 20	34 9
8	0	0	201 60	163 20	95 60	145 20	144 96	36,560	780 0	38 96
9	0	0	226 80	183 60	107 55	163 35	163 8	41,130	877 20	43 83
10	0	0	252 0	204 0	119 50	181 50	181 20	45,700	975 0	48 70

INDIA.—Amounts of Money Orders, issued in the United Kingdom on India, are paid in Rupees, Annas, and Pies; the Rupee being the standard of value in India. As, however, the value of the Rupee is subject to constant variation, no tables of conversion can be given. All Orders on India are issued in Sterling, and the equivalent in Rupees is settled by the Post-office at Bombay on arrival of the Advice List from London.

TABLE SHOWING SUMS PAYABLE IN ENGLISH MONEY ON MONEY ORDERS ISSUED  
IN FOREIGN COUNTRIES, &c.

Belgium and Switzer- land	France, Algeria, and Italy.	Germany and Helligo- land.	Holland and Dutch East Indies.	Denmark, Iceland, Norway, and Danish West Indies.	Sweden.	Portugal, Azores, and Madeira.	Egypt.	United States, Canada, and Hawaii.	English Money.
Francs. Cents.	Francs. Cents.	Marks. Pfenn.	Florins. Cents.	Kroner. Ore.	Kroner. Ore.	Reis.	Piastres. Paras.	Dollars. Cents.	£ s. d.
0 11	0 11	0 9	0 6	0 8	0 8	20	0 16	0 3	0 0 1
0 22	0 21	0 18	0 11	0 16	0 16	40	0 32	0 5	0 0 2
0 32	0 32	0 26	0 16	0 23	0 23	60	1 8	0 7	0 0 3
0 43	0 42	0 35	0 21	0 31	0 31	80	1 25	0 9	0 0 4
0 53	0 53	0 43	0 26	0 38	0 38	100	2 1	0 11	0 0 5
0 64	0 63	0 52	0 31	0 46	0 46	120	2 17	0 13	0 0 6
0 74	0 74	0 60	0 36	0 54	0 54	140	2 33	0 15	0 0 7
0 85	0 84	0 69	0 41	0 61	0 61	160	3 10	0 17	0 0 8
0 95	0 95	0 77	0 46	0 69	0 69	180	3 26	0 19	0 0 9
1 6	1 5	0 86	0 51	0 76	0 76	200	4 2	0 21	0 0 10
1 16	1 16	0 94	0 56	0 84	0 84	210	4 18	0 23	0 0 11
1 27	1 26	1 3	0 61	0 91	0 91	230	4 35	0 25	0 1 0
2 53	2 52	2 5	1 22	1 82	1 82	460	9 30	0 49	0 2 0
3 80	3 78	3 8	1 83	2 73	2 72	690	14 25	0 74	0 3 0
5 6	5 4	4 10	2 44	3 64	3 63	920	19 20	0 98	0 4 0
6 33	6 30	5 13	3 4	4 55	4 53	1,150	24 15	1 22	0 5 0
7 59	7 56	6 15	3 65	5 46	5 44	1,380	29 10	1 47	0 6 0
8 86	8 82	7 18	4 26	6 37	6 35	1,600	34 5	1 71	0 7 0
10 12	10 8	8 20	4 87	7 28	7 25	1,830	39 0	1 95	0 8 0
11 39	11 34	9 23	5 48	8 19	8 16	2,060	43 35	2 20	0 9 0
12 65	12 60	10 25	6 8	9 10	9 6	2,290	48 30	2 44	0 10 0
13 92	13 86	11 28	6 69	10 1	9 97	2,520	53 25	2 68	0 11 0
15 18	15 12	12 30	7 30	10 92	10 88	2,750	58 20	2 93	0 12 0
16 45	16 38	13 33	7 91	11 83	11 78	2,980	63 15	3 17	0 13 0
17 71	17 64	14 35	8 52	12 74	12 69	3,200	68 10	3 41	0 14 0
18 98	18 90	15 38	9 12	13 65	13 59	3,430	73 5	3 66	0 15 0
20 24	20 16	16 40	9 73	14 56	14 50	3,660	78 0	3 90	0 16 0
21 51	21 42	17 43	10 34	15 47	15 41	3,890	82 35	4 14	0 17 0
22 77	22 68	18 45	10 95	16 38	16 31	4,120	87 30	4 39	0 18 0
24 4	23 94	19 48	11 56	17 29	17 21	4,350	92 25	4 63	0 19 0
25 30	25 20	20 50	12 16	18 20	18 12	4,570	97 20	4 87	1 0 0
50 60	50 40	41 0	24 32	36 40	36 24	9,140	195 0	9 74	2 0 0
75 90	75 60	61 50	36 48	54 60	54 36	13,710	292 20	14 61	3 0 0
101 20	100 80	82 0	48 64	72 80	72 48	18,280	390 0	19 48	4 0 0
126 50	126 0	102 50	60 80	91 0	90 60	22,850	487 20	24 35	5 0 0
151 80	151 20	123 0	72 96	109 20	108 72	27,420	585 0	29 22	6 0 0
177 10	176 40	143 50	85 12	127 40	126 84	31,990	682 20	34 9	7 0 0
202 40	201 60	164 0	97 28	145 60	144 96	36,560	780 0	38 96	8 0 0
227 70	226 80	184 50	109 44	163 80	163 8	41,130	877 20	43 83	9 0 0
253 0	252 0	205 0	121 60	182 90	181 20	45,700	975 0	48 70	10 0 0

NOTE.—In calculating amounts payable in the United Kingdom, it must be understood that the Foreign Offices of Exchange reserve to themselves the power of dealing with fractions of a penny as they may deem most convenient. For example, an Order issued in Denmark for 1 Kroner may be credited to this country either as 1s. 1d. or 1s. 2d. An Order issued in Switzerland for 53 Francs may be credited either as £2. 1s. 10d. or £2 1s. 11d.

## THE TIME ALL OVER THE WORLD.

WHEN the clock at Greenwich points to Noon, the time at the various places below is as follows :—

	H. M.		H. M.
Boston, U.S. ....	7 18 a.m.	Copenhagen.....	12 50 p.m.
Dublin .....	11 35 a.m.	Florence .....	12 45 p.m.
Edinburgh .....	11 47 a.m.	Jerusalem .....	2 21 p.m.
Glasgow .....	11 43 a.m.	Madras ....	5 21 p.m.
Lisbon .....	11 43 a.m.	Malta .....	12 58 p.m.
Madrid .....	11 45 a.m.	Melbourne, Australia....	9 40 p.m.
New York, U.S. ....	7 14 a.m.	Moscow ..	2 30 p.m.
Penzance ...	11 38 a.m.	Munich.....	12 46 p.m.
Philadelphia, U.S. ....	6 59 a.m.	Paris .....	12 9 p.m.
Quebec .....	7 15 a.m.	Pekin .....	7 46 p.m.
Adelaide, Australia .....	9 11 p.m.	Prague ....	12 58 p.m.
Amsterdam .....	12 19 p.m.	Rome .....	12 50 p.m.
Athens .....	1 35 p.m.	Rotterdam .....	12 18 p.m.
Berlin .....	12 54 p.m.	St. Petersburg .....	2 1 p.m.
Berne .....	12 30 p.m.	Suez .....	2 10 p.m.
Bombay .....	4 52 p.m.	Sydney, Australia .....	10 5 p.m.
Brussels .....	12 17 p.m.	Stockholm .....	1 12 p.m.
Calcutta ..	5 54 p.m.	Stuttgart .....	0 37 p.m.
Capetown.....	1 14 p.m.	Vienna .....	1 6 p.m.
Constantinople .....	1 56 p.m.		

Hence, by a little calculation, the time for those places at any hour of our day may be ascertained. At places east of London the apparent time is later, and west of London, earlier; for uniformity sake, however, Greenwich time is kept at all railways in Great Britain and Ireland.

## TOTAL ANNUAL VALUE OF PROPERTY AND INCOME ASSESSED, 1875-92.

Year.	England.	Scotland.	Ireland.	United Kingdom.	Year.
	£	£	£	£	
1875	481,774,580	53,934,528	35,347,059	571,056,167	1875
1877	480,425,213	54,441,576	35,464,600	570,331,389	1877
1878	486,698,836	55,712,709	35,929,649	578,294,971	1878
1879	485,939,056	55,897,204	36,210,037	578,046,297	1879
1880	485,676,370	55,079,954	36,140,577	576,896,901	1880
1881	493,583,819	55,530,028	36,110,043	585,223,890	1881
1882	507,644,153	57,607,470	36,199,354	601,450,977	1882
1883	516,948,272	59,406,708	36,481,078	612,836,058	1883
1884	530,538,379	61,117,685	36,854,135	628,510,199	1884
1885	533,429,560	61,125,422	36,912,150	631,467,132	1885
1886	533,038,774	60,057,933	36,758,915	629,855,622	1886
1887	535,040,455	57,910,114	36,447,393	629,397,962	1887
1888	542,450,177	57,145,262	36,559,254	636,154,693	1888
1889	550,575,255	57,834,226	36,749,208	645,158,689	1889
1890	572,128,525	60,030,510	37,199,578	669,358,613	1890
1891	597,265,843	63,387,529	37,754,177	698,407,549	1891
1892	607,748,110	65,023,424	37,981,150	710,752,684	1892

## BAROMETER INSTRUCTIONS.

COMPILED BY THE LATE ADMIRAL FITZROY, F.R.S.

THE barometer should be set regularly by a duly-authorized person about sunrise, noon, and sunset.

The words on scales of barometers should not be so much regarded for weather indications as the RISING or FALLING of the mercury; for if it stand at CHANGEABLE (29.50) and then rise towards FAIR (30.00) it presages a change of wind or weather, though not so great as if the mercury had risen higher; and, on the contrary, if the mercury stand above FAIR and then fall it presages a change, though not to so great a degree as if it had stood lower; beside which, the direction and force of wind are not in any way noticed.

It is not from the point at which the mercury may stand that we are alone to form a judgment of the state of the weather, but from its RISING or FALLING; and from the movements of immediately PRECEDING days as well as hours, keeping in mind effects of change of DIRECTION, and dryness or moisture, as well as alteration of force or strength of wind.

It should always be remembered that the state of the air FORETELLS COMING weather rather than shows the weather that is PRESENT—(an invaluable fact too often overlooked)—that the longer the time between the signs and the change foretold by them the longer such altered weather will last; and, on the contrary, the less the time between a warning and a change the shorter will be the continuance of such foretold weather.

If the barometer has been about its ordinary height, say near 30 inches at the sea-level, and is steady on rising, while the thermometer falls and dampness becomes less, north-westerly, northerly, north-easterly wind, or less wind, less rain or snow may be expected.

On the contrary, if a fall takes place with a rising thermometer and increased dampness, wind and rain may be expected from the south-eastward, southward, or south-westward. A fall with low thermometer foretells snow.

When the barometer is rather below its ordinary height, say down to near 29½ inches (at sea-level), a rise foretells less wind, or a change in its direction towards the northward, or less wet; but when it has been very low, about 29 inches, the first rising usually precedes or indicates strong wind—at times heavy squalls—from the north-westward, northward, or north-eastward, AFTER which violence a gradually rising glass foretells improving weather; if the thermometer falls, but if the warmth continues, probably the wind will back (shift against the sun's course), and more southerly or south-westerly wind will follow, especially if the barometer rise is sudden.

The most dangerous shifts of wind, or the HEAVIEST northerly gales, happen soon after the barometer first rises from a very low point; or if the wind veers GRADUALLY, at some time afterwards.

## BAROMETER INSTRUCTIONS.

Indications of approaching change of weather and the direction and force of winds are shown less by the height of the barometer than by its falling or rising. Nevertheless, a height of more than 30 (30.00) inches (at the level of the sea) is indicative of fine weather and MODERATE winds, except from east to north, OCCASIONALLY.

A rapid rise of the barometer indicates unsettled weather, a slow movement the contrary; as likewise a STEADY barometer, when continued and with dryness, foretells very fine weather.

A rapid and considerable fall is a sign of stormy weather, and rain or snow. Alternate rising and sinking indicates unsettled or threatening weather.

The greatest depressions of the barometer are with gales from S.E., S., or S.W.; the greatest deviations, with wind from N.W., N., or N.E., or with calm.

A sudden fall of the barometer, with a westerly wind, is sometimes followed by a violent storm from N.W., N., or N.E.

If a gale sets in from the E. or S.E., and the wind veers by the south, the barometer will continue falling until the wind is near a marked change, when a lull MAY occur; after which the gale will soon be renewed, perhaps suddenly and violently, and the veering of the wind towards the N.W., N., or N.E. will be indicated by a rising of the barometer, with a fall of the thermometer.

After very warm and calm weather a storm or squall, with rain, may follow; likewise at any time when the atmosphere is HEATED much above the USUAL temperature of the season.

To know the state of the air not only the barometer AND THERMOMETER, but appearances of the sky should be vigilantly watched.

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 SIGNS OF WEATHER.

WHETHER clear or cloudy, a rosy sky at sunset presages fine weather; a red sky in the morning, bad weather, or much wind, perhaps rain; a grey sky in the morning, fine weather; a high dawn, wind; a low dawn, fair weather.\*

Soft-looking or delicate clouds foretell fine weather, with moderate or light breezes; hard-edged, oily-looking clouds, wind. A dark, gloomy blue sky is windy, but a light, bright blue sky indicates fine weather. Generally, the softer the clouds look, the less wind (but perhaps more rain) may be expected; and the harder, more "greasy," rolled, tufted, or ragged, the stronger the coming wind will prove. Also a bright yellow sky at sunset presages wind; a pale yellow, wet; and thus, by the prevalence of red, yellow, or grey tints, the coming weather may be foretold very nearly—indeed, if aided by instruments, almost exactly.

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\* A high dawn is when the first indications of daylight are seen above a bank of clouds. A low dawn is when the day breaks on or near the horizon, the first streaks of light being very low down.

## BAROMETER INSTRUCTIONS.

Small inky-looking clouds foretell rain; light scud clouds driving across heavy masses show wind and rain, but if alone may indicate wind only.

High upper clouds crossing the sun, moon, or stars in a direction different from that of the lower clouds, or the wind then felt below, foretell a change of wind.

After fine, clear weather, the first signs in the sky of a coming change are usually light streaks, curls, wisps or mottled patches of white distant clouds, which increase, and are followed by an overcasting of murky vapour that grows into cloudiness. This appearance, more or less oily or watery as wind or rain will prevail, is an infallible sign.

Light, delicate, quiet tints or colours, with soft, undefined forms of clouds, indicate and accompany fine weather; but gaudy or unusual hues, with hard, definitely-outlined clouds, foretell rain, and probably strong wind.

When sea-birds fly out early and far to seaward, moderate wind and fair weather may be expected. When they hang about the land, or over it, sometimes flying inland, expect a strong wind, with stormy weather. As many creatures beside birds are affected by the approach of rain or wind, such indications should not be slighted by an observer who wishes to foresee weather.

Remarkable clearness of atmosphere near the horizon, distant objects such as hills unusually visible, or raised (by refraction),† and what is called a "good HEARING day," may be mentioned among signs of wet, if not wind, to be expected.

More than usual twinkling of the stars, indistinctness or apparent multiplication of the moon's horns, haloes, "wind-dogs" (fragments or pieces of rainbows, sometimes called "wind-galls") seen on detached clouds, and the rainbow, are more or less significant of increasing wind, if not approaching rain with or without wind.

Lastly, the dryness or dampness of the air, and its temperature (for the season), should ALWAYS be considered WITH OTHER indications of change or continuance of wind and weather.

On barometer scales the following contractions may be useful:—

RISE  
FOR  
N.E.LY  
(N.W.-N.-E.)  
DRY  
OR  
LESS  
WIND.  
—  
EXCEPT  
WET FROM  
N.E.D.

FALL  
FOR  
S.W.LY  
(S.E.-S.-W.)  
WET  
OR  
MORE  
WIND.  
—  
EXCEPT  
WET FROM  
N.E.D.

When the wind shifts against the sun,  
Trust it not, for back it will run.

FIRST rise after very low  
Indicates a stronger blow.

Long foretold — long last;  
Short notice — soon past.

† Much refraction is a sign of easterly wind.

## METEOROLOGICAL TABLE.

*This Table is used to suggest what kind of weather will probably follow the changes of the Moon.*

Time of New or of Full Moon, or of entering the First or Last Quarter.	Weather likely to follow during the Quarter.	
	IN SUMMER.	IN WINTER.
12 at Noon to 2 Afternoon.....	Very rainy .....	Snow or rain.
2 Afternoon to 4 " .....	Changeable .....	Fair and mild.
4 " to 6 " .....	Fair .....	Fair.
6 " to 10 " .....	(Fair, if wind North-West .....	Fair, frosty, if North or North-East.
10 " to 12 Midnight ....	{ Rainy, if South or South-West .....	Rain or snow, if South or South-West.
12 Midnight to 2 Morning .....	Fair .....	Fair and frosty.
2 Morning to 4 " .....	Fair .....	Hard frost, unless South or West.
4 " to 6 " .....	Cold, with showers .....	Snow and stormy.
6 " to 8 " .....	Rain .....	Snow and stormy.
8 " to 10 " .....	Wind and rain .....	Stormy.
10 " to 12 Noon .....	Changeable .....	{ Cold rain, if wind West.
	Frequent showers .....	{ Snow, if East.
		Cold, with high wind.

## REMARKS.

The nearer the time of the Moon's entrance, at full, change, and quarters, is to midnight, that is, within two hours before and after midnight, the fairer the weather will be; but the nearer to noon, the less fair. Also the Moon's entrance, at full, change, and quarters, during six of the afternoon hours, namely, from four to ten, may be followed by fair weather; but this is mostly dependent upon the wind. The same entrance during all the hours after midnight is, with the exception of the two first, unfavourable to fair weather.



## MONTHLY METEOROLOGICAL TABLE FOR THE YEAR ENDING SEPTEMBER 30, 1893.

*(From Official Sources.)*

ROYAL OBSERVATORY, GREENWICH.—HEIGHT OF STATION ABOVE SEA LEVEL, 159 FEET.

YEAR 1892-93.	PRESSURE OF ATMOSPHERE IN MONTH.		TEMPERATURE OF AIR IN MONTH.					MEAN TEMPERATURE.		MEAN READING OF THERMOMETER.		RAIN.		
	Month.	Mean.	Range.	Highest.	Lowest.	Range.	MEAN		Air.	Dew Point.	Maximum in Rays of Sun.	Minimum on Grass.	Number of days it fell.	Amount Collected.
							of all Highest.	of all Lowest.						
1892		In.	In.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Days.	In.
October.....		29.545	1.019	61.9	27.4	34.5	53.1	39.1	45.4	41.8	80.9	32.1	22	3.88
November ..		29.881	0.814	60.9	31.2	29.7	50.0	39.5	44.9	42.7	61.0	35.7	18	2.21
December....		29.816	0.986	54.7	17.6	37.1	40.8	32.0	36.7	32.9	45.3	28.5	11	1.14
1893.														
January ....		29.885	0.990	52.2	13.9	38.3	39.3	31.2	35.4	32.1	45.7	28.4	15	1.45
February ....		29.542	1.731	58.8	23.1	35.7	47.2	35.7	41.1	37.3	66.4	32.4	22	2.72
March .....		29.964	0.880	69.3	24.2	45.1	56.9	35.9	46.2	37.9	92.2	30.9	7	0.43
April .....		29.990	0.615	80.0	30.2	49.8	64.2	39.6	51.4	40.2	109.0	33.9	3	0.12
May .....		29.888	0.914	80.4	38.0	42.4	70.6	46.1	57.7	46.1	121.9	38.5	9	0.53
June .....		29.838	1.093	91.0	37.3	53.7	75.3	50.1	61.8	49.5	126.2	43.2	8	0.82
July .....		29.732	0.747	89.9	47.1	42.8	74.3	54.4	63.1	53.5	121.0	48.9	18	3.33
August .....		29.861	0.681	95.1	43.2	51.9	77.7	55.2	65.5	54.8	126.8	47.9	11	1.25
September ..		29.698	1.034	82.8	37.5	45.3	67.7	48.2	57.1	48.7	109.9	41.1	14	1.29

## MONTHLY METEOROLOGICAL TABLE FOR THE YEAR ENDING SEPTEMBER 30, 1893.

(From Official Sources.)

THE OBSERVATORY, LIVERPOOL.—HEIGHT OF STATION ABOVE SEA LEVEL, 197 FEET.

YEAR 1892-93.	PRESSURE OF ATMOSPHERE IN MONTH.		TEMPERATURE OF AIR IN MONTH.					MEAN TEMPERATURE.		MEAN READING OF THERMOMETER.		RAIN.		
	Mean.	Range.	Highest.	Lowest.	Range.	MEAN		Air.	Dew Point.	Maximum in Rays of Sun.	Minimum on Grass.	Number of days it fell.	Amount Collected.	
						of all Highest.	of all Lowest.							Daily Range.
1892.	In.	In.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	* Deg.	* Deg.	Days.	In.	
October.....	29.483	1.293	57.8	29.8	28.0	50.5	41.6	8.9	45.0	41.4	98.1	30.9	24	6.59
November ..	29.763	0.816	56.5	30.2	26.3	48.9	40.7	8.2	44.4	40.3	69.7	32.7	19	1.87
December....	29.718	0.998	53.1	22.0	31.1	42.1	33.5	8.6	37.6	34.3	58.3	23.3	16	2.30
1893.														
January ....	29.819	1.086	50.8	17.7	33.1	40.7	33.3	7.4	37.1	34.7	62.6	35.7	19	1.21
February ....	29.407	1.660	57.2	29.5	27.7	46.3	36.5	9.8	40.7	36.9	72.1	29.9	21	2.85
March .....	29.856	1.104	64.2	30.8	33.4	52.4	39.6	12.8	45.4	37.3	94.6	28.8	9	0.53
April .....	29.950	0.714	75.1	34.3	40.8	59.6	42.7	16.9	49.2	42.0	110.8	31.8	4	0.49
May .....	29.829	0.962	75.0	42.3	32.7	62.2	48.6	13.6	54.4	45.7	114.9	40.4	15	1.69
June .....	29.776	1.116	85.0	47.9	37.1	67.9	53.6	14.3	59.1	49.4	122.3	43.0	10	1.55
July .....	29.663	0.727	83.8	51.8	32.0	68.6	55.6	13.0	60.7	50.8	127.4	47.1	16	3.14
August .....	29.764	0.899	84.6	48.0	36.6	69.5	57.6	11.9	62.3	54.2	128.2	47.8	16	1.99
September ..	29.609	1.222	71.2	41.3	29.9	61.4	51.0	10.4	55.4	48.7	113.0	41.4	19	3.75

\* The Mean temperature inserted in these two columns is taken from the Returns of Stonyhurst College, Lancashire, as they were not supplied by Liverpool. The height of station above sea level is 363 feet.

## MONTHLY METEOROLOGICAL TABLE FOR THE YEAR ENDING SEPTEMBER 30, 1893.

*(From Official Sources.)*

THE OBSERVATORY, CARLISLE, SPITAL (CUMBERLAND).—HEIGHT OF STATION ABOVE SEA LEVEL, 114 FEET.

Year 1892-93.	Month	PRESSURE OF ATMOSPHERE IN MONTH.		TEMPERATURE OF AIR IN MONTH.					MEAN TEMPERATURE.		MEAN READING OF THERMOMETER.		RAIN.	
		Mean.	Range.	Highest.	Lowest.	Range.	MEAN		Air.	Dew Point.	Maximum in Rays of Sun.	Minimum on Grass.	Number of days it fell.	Amount Collected.
		In.	In.	Deg.	Deg.	Deg.	of all Highest.	of all Lowest.						
	1892.													
	October.....	29.567	1.298	60.2	21.0	39.2	51.3	40.1	Deg.	Deg.	Deg.	Deg.	19	3.68
	November....	29.798	0.880	57.5	28.2	29.3	49.0	37.8	11.2	37.6	57.1	30.7	18	1.98
	December....	29.750	1.062	52.7	1.0	53.7	40.4	29.4	11.2	32.1	48.3	22.0	15	1.54
	1893.													
	January.....	29.875	1.122	53.8	17.2	36.6	41.3	33.4	7.9	34.3	49.7	27.1	9	1.20
	February ....	29.444	1.688	57.8	26.8	31.0	46.5	38.2	8.3	35.6	65.1	31.1	22	3.86
	March.....	29.887	1.132	65.5	26.2	39.3	52.7	36.4	16.3	40.9	83.6	31.1	9	1.38
	April.....	30.006	0.808	77.4	24.8	52.6	62.3	37.9	24.4	41.5	95.3	33.2	9	0.92
	May.....	29.892	1.036	76.8	32.7	44.1	65.3	45.2	20.1	46.4	99.7	40.3	11	1.76
	June.....	29.831	1.130	85.8	38.4	47.4	71.8	48.0	23.8	48.7	109.9	45.5	11	2.54
	July.....	29.712	0.834	87.4	44.5	42.9	71.2	51.6	19.6	51.2	112.4	47.8	18	2.76
	August.....	29.797	1.016	83.0	35.8	47.2	72.2	52.3	19.9	53.4	112.6	47.3	19	3.88
	September....	29.622	1.314	73.8	30.5	43.3	63.1	45.2	17.9	46.7	95.2	40.5	19	3.12

## REMARKS ON THE WEATHER.

*(From Official Sources.)*

OCTOBER, 1892.—In this month the weather was very cold till towards the end, when there were three or four warm days, with frequent rain throughout the month. The temperature of the air was constantly below the average to the 27th, the amount exceeding  $10^{\circ}$  on some days. On every day excepting the 11th, 12th, and 17th to 20th days the atmospheric pressure was below the average. The rainfall was above the average; the fall was especially heavy on the 13th, 14th, 15th, and 16th in Yorkshire, where there were great floods, causing farmers considerable loss, and in many of the towns hundreds of houses were flooded.

NOVEMBER.—The weather was mild and damp, with very little sunshine. Excepting from the 18th to the 25th the temperature of the air was generally above the average. Till the 6th the atmospheric pressure was below its average, and from the 12th to the 16th, and above on other days. Small quantities of rain fell frequently.

DECEMBER.—This month was dry, cold, and foggy. The temperature of the air was mild, and from the 15th to the 21st was above the average; it was below the average till the 14th, and from the 4th to the 10th particularly so. Frost set in with severity on the 22nd, continuing to the end of the month for these ten days the average deficiency of temperature being  $9^{\circ}1$ . On the 27th and 28th the lowest temperature in the month occurred. From the 3rd to the 13th, and from the 29th to the 31st the atmospheric pressure was generally below the average, and on all other days generally above. The rainfall was below the average, and during the latter half of the month very little rain fell.

JANUARY. 1893. — During the first week the weather was very cold, and till the 18th, with snow and rain frequent, but from the 19th was warm, with fogs. Till the 18th the temperature of the air was constantly below its average, and on the 3rd, 4th, and 5th days particularly so. The mean temperature on the 2nd, 3rd, 4th, and 5th at Blackheath were as much as  $13^{\circ}1$ ,  $12^{\circ}2$ ,  $15^{\circ}5$ , and  $16^{\circ}8$  below their averages, and to the 18th the mean daily deficiency of temperature was as much as  $6\frac{3}{4}^{\circ}$ ; and for the twenty-eight days beginning December 22nd and ending January 18th was  $7\frac{1}{2}^{\circ}$ . Occasionally the atmospheric pressure was a little below the average, but was generally above. At some few places the fall of rain was a little above the average, but at most places a little below.

FEBRUARY. — The weather was unsettled and warm, and on two days out of three rain fell at nearly all the stations. From the 1st to the 3rd and from the 7th to the 21st the temperature of the air was above its average, and below it on the other days. Till the 7th the atmospheric pressure was generally above its

## REMARKS ON THE WEATHER.

average, and below from the 8th, and from the 20th to the 27th particularly so, when the departures below the average mean daily pressures were 0.44 in., 1.29 in., 0.98 in., 0.55 in., 0.70 in., 0.73 in., 0.99 in., and 0.68 in. in succession. The mean pressure for the month was lower than in any February back to 1879, and the fall of rain was above the average.

MARCH.—In this month the weather was exceptionally fine, warm, and dry, and with the exception of the short period from the 17th to the 21st was above the average, and to the 16th the average mean daily excess was  $5\frac{1}{4}^{\circ}$ , and from the 22nd to the end of the month was  $3^{\circ}$ . The mean temperature of the month was  $46^{\circ}2$ , and we must go back to the year 1859 for a March so warm, there being but four other instances back to 1771. With the exception of the 1st and 2nd, and from the 12th to the 17th, the atmospheric pressure was above the average. The mean pressure for the month was higher than in any March back to 1874. The rainfall was remarkably small, 0.4 in. only at Blackheath, and not since 1854 have we had a March with so small a rainfall.

APRIL.—This month was remarkable for its small rainfall, an unusual amount of sunshine, and fineness generally. On every day excepting the 9th, 11th, 12th, 13th, 14th, 17th, and 30th the temperature of the air was above its average, and the temperature after the middle of the month was that of summer. On nearly every day the atmospheric pressure was above its average, and the mean pressure was higher than in April since 1861. At Blackheath the fall of rain was only 0.09 in., and for so small a fall of rain we must go back to 1855, namely 0.1 in. In 1840 and 1817 the fall was also 0.1 in. In March and April together the fall of rain was 0.49 in., and we have to go back to 1840, March and April, for so small a fall, when the amount was 0.4 in. In the southern and midland counties particularly the consequent drought became very serious.

MAY.—Remarkably fine and dry weather prevailed, the exceptional weather of the two preceding months continuing. On every day till the 29th, with the exception of the 7th and 8th, the temperature of the air was above its average. On every day till the 14th, and from the 25th, the atmospheric pressure was above its average. The fall of rain was small, none falling at Blackheath till the 16th, then a little fell daily to the 23rd and on the 29th. The fall was 0.52 in. in the month, and in the three months, March, April, and May, it was 1 in., giving a daily average of only about a hundredth of an inch. The drought was general, but was most severely experienced at the southern stations, where the falls were less than half of those at the northern, the intervals without rain being about twice as long.

JUNE.—During this month the weather was very fine and dry. The temperature of the air was generally above its average, but for two or three days together was occasionally below. About the middle of the month it was very warm. It was  $90^{\circ}$  or near  $90^{\circ}$  at southern and midland stations on the 19th, and about  $85^{\circ}$

## REMARKS ON THE WEATHER.

at northern stations. From the 4th to the 12th and on the 16th, 17th, 18th, and 30th days the atmospheric pressure was above its average, and below on all other days. At Blackheath the fall of rain was small; on the 7th and 20th a little fell, amounting to 0·17 in., then from the 23rd to the 28th rain fell daily. On March 5th the drought began, and continued to June 22nd. In the four months, March, April, May, and June, the fall of rain was 1·90 in., being just the half of that which fell in the same four months in the year 1837. Hay crops were deficient everywhere, but in the north better than in the south, where they were very light. In some places the crop quite failed.

JULY.—In the early part of this month the weather was very warm, and throughout was generally fine and warm. Till the 11th, and from the 20th to the 25th, the temperature of the air was above its average, and from the 12th to the 19th and from the 26th below the average. With the exception of the first three days, and three days towards the end of the month, the atmospheric pressure was below the average. The rainfall was generally small, but it slightly exceeded the average at a few stations. The want of water was severely felt on the whole, and fully a month earlier than usual harvest work began generally.

AUGUST.—Weather was very warm, fine, and dry, with a remarkably hot period extending from the 8th to the 18th. Till the 7th, and from the 23rd to the 29th, the temperature of the air was a little below the average, and above on all other days. From the 6th to the 17th, and from the 24th, the atmospheric pressure was above its average; below till the 5th, and from the 18th to the 23rd. Want of water was experienced in many places, the fall of rain being below the average, and the grass fields were much dried up.

SEPTEMBER.—During the first half of the month particularly the weather was very fine and dry. Till the 8th the temperature of the air was below the average; from the 9th to the 13th below; again above from the 14th to the 20th; below from the 21st to the 26th, with slight frost at night; and slightly above to the end of the month. Till the 5th, and from the 11th to the 15th, the atmospheric pressure was generally higher than the average, and on the other days of the month mostly lower. The fall of rain was very variable, at most of the stations being below the average, and fully up to it at a few. At some stations it fell on eight to ten days only; it fell on twenty-three days at Llandudno, and on twenty days at Guernsey and Stonyhurst. The want of water was severely felt at many places, ponds and wells being dried up.

## WEATHER FORECASTS.

BELOW we give five tables taken from the report of the Meteorological Office for the year ending March 31st, 1893. The weather forecasts are prepared three times a day—at 11 a.m., 3-30 p.m., and 8-30 p.m.—the forecasts prepared at 11 a.m. on information derived from the 8 a.m. reports, refer to the probable weather between noon on the day of issue and noon of the following day.

The 3-30 p.m. forecasts are employed for storm warnings only, excepting in the hay harvest season for which see page 624. The 8-30 p.m. forecasts are specially prepared for the morning papers, but all forecasts are available for the information of any one applying at the office, 63, Victoria Street, London. The second, fourth, and fifth tables show the success that has attended the forecasting of the weather of the British Isles.

TABLE 1.

### SUMMARY OF RESULTS OF 8-30 P.M. FORECASTS, 1892-93.

DISTRICTS.	PERCENTAGES.				Total per-centage of Success.
	Complete Success.	Partial* Success.	Partial* Failure.	Total Failure.	
Scotland, N. ....	45	36	13	6	81
„ E. ....	47	31	16	6	78
England, N.E. ....	49	32	15	4	81
„ E. ....	47	34	15	4	81
Midland Counties.....	47	31	16	6	78
England, S. ....	48	35	14	3	83
Scotland, W.....	41	32	17	10	73
England, N.W.....	43	34	14	9	77
„ S.W.....	49	31	12	8	80
Ireland, N. ....	46	32	13	9	78
„ S.....	41	34	15	10	75
Summary.....	46	33	14	7	79

\* Note, “partial” implies “more than half.”

TABLE 2.

*The following table shows for each year from 1883 to 1892, inclusive, the percentages of complete and partial success of the Forecasts issued at 8-30 p.m. for the whole year.*

PERCENTAGES OF RESULTS OF FORECASTS FOR THE WHOLE OF THE  
BRITISH ISLES.

YEAR.	Complete Success.	Partial, i.e., more than Half Success.	Total Success.
1883 .....	48	33	81
1884 .....	50	31	81
1885 .....	50	34	84
1886 .....	49	31	80
1887 .....	52	32	84
1888 .....	51	31	82
1889 .....	49	32	81
1890 .....	50	32	82
1891 .....	50	30	80
1892 .....	46	33	79
Average.....	49	32	81

TABLE 3.

SUMMARY OF RESULTS.—HAY HARVEST FORECASTS 1892.

DISTRICTS.	NAMES OF STATIONS.	PERCENTAGES				Total Percentage of Success.
		Complete Success.	Partial Success.	Partial Failure.	Total Failure.	
Scotland, N. ....	Munlochy and Golspie .....	61	28	11	..	89
„ E. ....	Aberfeldy, Glamis, and Rothiemay ..	58	20	16	6	78
England, N.E. ..	Chatton and Ulceby .....	46	35	14	5	81
„ E. ....	Rothamstead and Thorpe .....	50	32	15	3	82
Midland Counties.	Cirencester and East Retford .....	44	38	15	3	82
England, S. ....	Reading, Maidstone, Downton, and Horsham .....	61	30	8	1	91
Scotland, W. ....	Stranraer, Islay, and Dumbarton ....	63	29	5	3	92
England, N.W. ..	Leyburn and Prescott .....	61	35	4	..	96
„ S.W. ..	Tortworth, Clifton, and Glastonbury..	60	33	7	..	93
Ireland, N. ....	Moynalty and Edgeworthstown .....	58	30	9	3	88
„ S. ....	Tralee, Kilkenny, and Parsonstown ..	56	38	6	..	94
	Mean for all districts.....	56	32	10	2	88

*These figures show that the results for the forecasts for 1892 reached a total percentage of success of 88, being one lower than was recorded in the three preceding years.*



TABLE 4.

RETURN OF THE RESULT OF THE COMPARISON BETWEEN THE WARNINGS  
ISSUED AND THE WEATHER EXPERIENCED IN 1892.

COASTS.	Total No. of Orders to hoist and repetitions	Warnings justified by subsequent Gales, Force 8 and upwards.	Warnings justified by subsequent strong Winds, Forces 6 and 7.	Warnings not justified by subsequent Weather.	Warnings late, Force 9 reached at two Stations before issue.	Warnings partially late Force 9 reached at one Station before issue.	Storms for which no Warning was issued.
Scotland, N.E. ....	46	30	14	2	..	..	Jan. 29-30; March 16; Apr. 22; Oct. 7.
"    E. ....	30	7	17	6	..	..	Feb. 1.
"    N.W. ....	49	29	14	3	..	3	Oct. 7.
"    W. ....	43	24	15	4	..	..	..
Ireland, S.W. ....	45	26	15	2	1	1	March 16; Oct. 7.
"    N.W. ....	49	36	10	2	1	..	....
Irish Sea .....	39	31	6	1	..	1	Feb. 15; Aug. 14-15.
St. George's Chan'el	30	13	14	2	1	..	....
Bristol Channel ..	32	20	9	1	1	1	Aug. 30; Oct. 29.
England, S.W. ....	32	22	8	1	1	..	....
"    S. ....	23	12	10	..	..	1	Jan. 7.
"    S.E. ....	23	11	8	4	..	..	Dec. 9.
"    E. ....	23	11	8	4	..	..	....
"    N.E. ....	24	18	4	1	..	1	Jan. 29-30; Feb. 1; Oct. 23; Dec. 17.
Totals.....	488	290	152	33	5	8	
Percentages ..		59.4	31.2	6.8	1.0	1.6	

TABLE 5.

COMPARATIVE STATEMENT OF THE STORM WARNINGS AND THEIR  
RESULTS IN 1892, AND IN THE TEN PRECEDING YEARS.

Years.	Total No. of Warnings issued.	Warnings justified by subsequent Gales.	Warnings justified by subsequent strong Winds.	Total Warnings justified.	Warnings not justified by subsequent Weather.
1883	610	p.c. 56.2	p.c. 21.6	p.c. 77.8	p.c. 20.8
1884	461	66.4	20.0	86.4	12.1
1885	591	55.3	24.0	79.3	19.5
1886	542	55.3	26.9	82.2	15.9
1887	472	55.5	26.1	81.6	16.4
1888	539	55.3	28.6	83.9	14.3
1889	373	47.7	33.5	81.2	16.9
1890	525	61.0	25.5	86.5	9.3
1891	522	62.3	24.5	86.8	7.5
1892	488	59.4	31.2	*90.6	6.8

\* Note.—It will be seen that the total percentage of warnings justified in 1892 is 90.6, being the highest on record.

## DAILY TIDE TABLES AT GOOLE FOR THE YEAR 1894.

JANUARY.				FEBRUARY.				MARCH.				APRIL.				MAY.				JUNE.			
GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.
Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.		
h m	h m	1	M	h m	h m	1	M	h m	h m	1	M	h m	h m	1	M	h m	h m	1	M	h m	h m	1	M
2 33	3 1	2	Tu	4 23	3 14	2	Tu	2 14	3 45	2	Tu	4 26	4 4	2	Tu	4 4	4 32	2	Tu	4 51	5 15	2	Tu
3 32	4 1	3	W	5 33	4 5	3	W	5 0	5 0	3	W	5 29	4 59	3	W	5 29	5 22	3	W	5 37	6 45	3	W
4 31	5 2	4	Th	6 27	5 4	4	Th	6 7	6 97	4	Th	6 10	5 41	4	Th	6 17	6 34	4	Th	6 21	7 35	4	Th
5 30	6 55	5	F	7 16	6 46	5	F	6 46	6 53	5	F	7 15	6 53	5	F	6 53	7 13	5	F	7 59	8 25	5	F
6 17	6 39	6	Sa	7 43	7 19	6	Sa	7 19	7 32	6	Sa	7 50	7 33	6	Sa	7 33	7 53	6	Sa	8 51	9 16	6	Sa
7 39	7 58	7	Su	8 17	7 52	7	Su	8 23	8 7	7	Su	8 25	8 15	7	Su	8 15	8 38	7	Su	9 42	10 9	7	Su
8 16	8 34	8	M	8 51	8 23	8	M	8 55	8 43	8	M	9 36	8 59	8	M	8 59	9 21	8	M	10 38	11 5	8	M
9 7	9 7	9	Tu	9 39	8 8	9	Tu	9 11	9 17	9	Tu	10 18	9 44	9	Tu	10 37	10 11	9	Tu	11 32	..	9	Tu
8 51	9 7	10	W	10 11	9 55	10	W	9 27	9 56	10	W	10 18	11 5	10	W	10 37	11 4	10	W	..	..	10	W
9 25	9 43	11	Th	10 46	11 2	11	Th	10 0	10 41	11	Th	11 5	..	11	Th	11 35	0 54	11	Th	0 4	0 39	11	Th
10 0	10 17	12	F	11 21	11 42	12	F	10 36	11 15	12	F	..	0 49	12	F	0 12	2 16	12	F	1 15	1 47	12	F
10 36	10 54	13	S	..	0 6	13	S	10 56	11 15	13	S	0 7	0 49	13	S	0 12	2 16	13	S	1 15	1 47	13	S
11 33	11 57	14	M	0 23	1 8	14	M	11 41	..	14	M	1 34	2 21	14	M	1 35	3 24	14	M	2 18	2 49	14	M
0 23	0 49	15	Tu	1 45	2 23	15	Tu	11 41	0 46	15	Tu	1 34	2 21	15	Tu	2 32	3 24	15	Tu	3 14	3 41	15	Tu
1 20	1 50	16	W	2 35	3 50	16	W	11 41	0 46	16	W	1 34	2 21	16	W	2 32	3 24	16	W	3 14	3 41	16	W
2 23	2 57	17	Th	3 5	5 17	17	Th	11 41	0 46	17	Th	1 34	2 21	17	Th	2 32	3 24	17	Th	3 14	3 41	17	Th
3 50	4 5	18	F	4 35	5 54	18	F	11 41	0 46	18	F	1 34	2 21	18	F	2 32	3 24	18	F	3 14	3 41	18	F
4 43	5 20	19	Sa	5 20	6 46	19	Sa	11 41	0 46	19	Sa	1 34	2 21	19	Sa	2 32	3 24	19	Sa	3 14	3 41	19	Sa
5 53	6 21	20	Su	6 21	7 36	20	Su	11 41	0 46	20	Su	1 34	2 21	20	Su	2 32	3 24	20	Su	3 14	3 41	20	Su
6 48	7 17	21	M	7 17	8 42	21	M	11 41	0 46	21	M	1 34	2 21	21	M	2 32	3 24	21	M	3 14	3 41	21	M
7 46	8 12	22	Tu	8 12	9 20	22	Tu	11 41	0 46	22	Tu	1 34	2 21	22	Tu	2 32	3 24	22	Tu	3 14	3 41	22	Tu
8 38	9 1	23	W	9 8	9 57	23	W	11 41	0 46	23	W	1 34	2 21	23	W	2 32	3 24	23	W	3 14	3 41	23	W
9 23	9 45	24	Th	10 13	10 31	24	Th	11 41	0 46	24	Th	1 34	2 21	24	Th	2 32	3 24	24	Th	3 14	3 41	24	Th
10 6	10 48	25	F	10 48	11 4	25	F	11 41	0 46	25	F	1 34	2 21	25	F	2 32	3 24	25	F	3 14	3 41	25	F
10 46	11 7	26	Sa	11 21	11 41	26	Sa	11 41	0 46	26	Sa	1 34	2 21	26	Sa	2 32	3 24	26	Sa	3 14	3 41	26	Sa
11 26	11 46	27	Su	11 26	0 4	27	Su	11 41	0 46	27	Su	1 34	2 21	27	Su	2 32	3 24	27	Su	3 14	3 41	27	Su
0 33	0 59	28	M	0 33	0 59	28	M	11 41	0 46	28	M	1 34	2 21	28	M	2 32	3 24	28	M	3 14	3 41	28	M
1 28	1 58	29	Tu	1 28	1 58	29	Tu	11 41	0 46	29	Tu	1 34	2 21	29	Tu	2 32	3 24	29	Tu	3 14	3 41	29	Tu
2 30	3 6	30	W	2 30	3 6	30	W	11 41	0 46	30	W	1 34	2 21	30	W	2 32	3 24	30	W	3 14	3 41	30	W
3 1	3 6	31	Th	3 1	3 6	31	Th	11 41	0 46	31	Th	1 34	2 21	31	Th	2 32	3 24	31	Th	3 14	3 41	31	Th

Hull tides 59 minutes earlier than Goole each day.

## DAILY TIDE TABLES AT GOOLE FOR THE YEAR 1894—Continued.

JULY.				AUGUST.				SEPTEMBER.				OCTOBER.				NOVEMBER.				DECEMBER.			
GOOLE High Water.		GOOLE High Water.		GOOLE High Water.		GOOLE High Water.		GOOLE High Water.		GOOLE High Water.		GOOLE High Water.		GOOLE High Water.		GOOLE High Water.		GOOLE High Water.		GOOLE High Water.		GOOLE High Water.	
Date.	Day.	Morn.	Aftern.	Date.	Day.	Morn.	Aftern.	Date.	Day.	Morn.	Aftern.	Date.	Day.	Morn.	Aftern.	Date.	Day.	Morn.	Aftern.	Date.	Day.	Morn.	Aftern.
1	W	5 33	7 19	1	S	8 16	8 37	1	M	8 27	8 45	1	Th	9 11	9 29	1	S	9 38	9 51	1	S	9 38	9 51
2	F	6 27	8 10	2	S	8 56	9 16	2	W	9 1	9 18	2	Th	9 48	10 6	2	S	10 11	10 30	2	S	10 11	10 30
3	F	6 54	8 35	3	F	9 25	9 54	3	W	9 37	9 55	3	F	10 25	10 46	3	F	10 51	11 11	3	F	10 51	11 11
4	S	7 52	9 43	4	S	10 12	10 30	4	Th	10 12	10 30	4	Th	11 11	11 41	4	Th	11 41	12 1	4	Th	11 41	12 1
5	S	8 47	10 26	5	W	10 45	11 5	5	W	10 49	11 12	5	M	11 11	11 41	5	W	11 41	12 1	5	W	11 41	12 1
6	M	9 38	10 53	6	W	11 27	11 5	6	F	11 39	11 12	6	M	11 39	11 41	6	M	11 39	11 41	6	M	11 39	11 41
7	W	10 28	11 42	7	F	11 45	11 49	7	F	11 49	11 53	7	W	11 49	11 53	7	W	11 49	11 53	7	W	11 49	11 53
8	W	11 16	11 46	8	S	11 45	11 49	8	M	11 49	11 53	8	M	11 49	11 53	8	M	11 49	11 53	8	M	11 49	11 53
9	Th	0 34	0 8	9	M	11 45	11 49	9	M	11 49	11 53	9	M	11 49	11 53	9	M	11 49	11 53	9	M	11 49	11 53
10	Th	0 34	0 8	10	W	11 45	11 49	10	W	11 49	11 53	10	W	11 49	11 53	10	W	11 49	11 53	10	W	11 49	11 53
11	Th	1 32	2 1	11	Th	1 37	2 8	11	Th	1 37	2 8	11	Th	1 37	2 8	11	Th	1 37	2 8	11	Th	1 37	2 8
12	Th	2 80	2 57	12	W	2 44	3 22	12	W	2 44	3 22	12	W	2 44	3 22	12	W	2 44	3 22	12	W	2 44	3 22
13	F	3 27	4 0	13	W	3 33	4 14	13	W	3 33	4 14	13	W	3 33	4 14	13	W	3 33	4 14	13	W	3 33	4 14
14	S	4 32	5 3	14	Th	4 53	5 25	14	Th	4 53	5 25	14	Th	4 53	5 25	14	Th	4 53	5 25	14	Th	4 53	5 25
15	S	5 33	6 0	15	Th	5 49	6 9	15	Th	5 49	6 9	15	Th	5 49	6 9	15	Th	5 49	6 9	15	Th	5 49	6 9
16	W	6 24	6 45	16	W	6 29	6 46	16	W	6 29	6 46	16	W	6 29	6 46	16	W	6 29	6 46	16	W	6 29	6 46
17	W	7 7	7 27	17	F	7 33	7 48	17	F	7 33	7 48	17	F	7 33	7 48	17	F	7 33	7 48	17	F	7 33	7 48
18	W	7 46	8 5	18	M	8 34	8 50	18	M	8 34	8 50	18	M	8 34	8 50	18	M	8 34	8 50	18	M	8 34	8 50
19	W	8 23	8 41	19	W	9 37	9 53	19	W	9 37	9 53	19	W	9 37	9 53	19	W	9 37	9 53	19	W	9 37	9 53
20	S	9 58	9 14	20	M	9 37	9 53	20	M	9 37	9 53	20	M	9 37	9 53	20	M	9 37	9 53	20	M	9 37	9 53
21	S	10 5	10 21	21	Th	10 8	10 24	21	Th	10 8	10 24	21	Th	10 8	10 24	21	Th	10 8	10 24	21	Th	10 8	10 24
22	S	10 39	10 56	22	Th	11 18	11 40	22	Th	11 18	11 40	22	Th	11 18	11 40	22	Th	11 18	11 40	22	Th	11 18	11 40
23	S	11 14	11 33	23	F	11 18	11 40	23	F	11 18	11 40	23	F	11 18	11 40	23	F	11 18	11 40	23	F	11 18	11 40
24	W	11 56	12 1	24	F	11 18	11 40	24	F	11 18	11 40	24	F	11 18	11 40	24	F	11 18	11 40	24	F	11 18	11 40
25	W	0 21	0 48	25	M	1 50	2 31	25	M	1 50	2 31	25	M	1 50	2 31	25	M	1 50	2 31	25	M	1 50	2 31
26	W	1 16	1 46	26	W	2 31	3 16	26	W	2 31	3 16	26	W	2 31	3 16	26	W	2 31	3 16	26	W	2 31	3 16
27	W	2 21	2 56	27	Th	3 43	4 33	27	Th	3 43	4 33	27	Th	3 43	4 33	27	Th	3 43	4 33	27	Th	3 43	4 33
28	W	3 32	4 8	28	Th	4 43	5 22	28	Th	4 43	5 22	28	Th	4 43	5 22	28	Th	4 43	5 22	28	Th	4 43	5 22
29	W	4 47	5 24	29	Th	5 51	6 18	29	Th	5 51	6 18	29	Th	5 51	6 18	29	Th	5 51	6 18	29	Th	5 51	6 18
30	W	5 54	6 23	30	F	7 31	7 53	30	F	7 31	7 53	30	F	7 31	7 53	30	F	7 31	7 53	30	F	7 31	7 53
31	W	6 54	7 23	31	F	7 31	7 53	31	F	7 31	7 53	31	F	7 31	7 53	31	F	7 31	7 53	31	F	7 31	7 53

Hull tides 50 minutes earlier than Goole each day.

## DAILY TIDE TABLES AT LIVERPOOL FOR THE YEAR 1894.

JANUARY.				FEBRUARY.				MARCH.				APRIL.				MAY.				JUNE.			
LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.	
Date.	Day.	Morn.	Aftern.	Date.	Day.	Morn.	Aftern.	Date.	Day.	Morn.	Aftern.	Date.	Day.	Morn.	Aftern.	Date.	Day.	Morn.	Aftern.	Date.	Day.	Morn.	Aftern.
1	M	6 41	8 15	1	Th	8 8	8 46	1	Th	5 41	6 33	1	Th	8 12	8 47	1	Th	8 20	8 45	1	F	9 0	9 22
2	W	7 47	8 18	2	F	9 19	9 48	2	F	7 25	8 10	2	M	9 14	9 35	2	W	9 7	9 26	2	S	9 44	10 6
3	Th	8 48	9 15	3	M	10 14	10 32	3	M	8 51	9 25	3	W	9 55	10 12	3	Th	9 44	10 2	3	S	10 29	10 54
4	Th	9 40	10 2	4	M	10 50	11 9	4	W	9 52	10 13	4	W	10 27	10 43	4	Th	10 19	10 34	4	S	11 28	11 42
5	F	10 21	10 44	5	M	11 27	11 44	5	M	10 31	10 47	5	F	11 59	11 16	5	S	10 57	11 6	5	Th	0 9	0 9
6	S	11 5	11 23	6	Th	0 0	0 0	6	Th	11 3	11 20	6	F	11 59	11 16	6	S	11 36	11 59	6	W	0 34	1 0
7	W	11 41	0 0	7	W	0 17	0 34	7	W	11 35	11 51	7	M	11 3	11 50	7	Th	11 36	11 59	7	Th	1 26	1 52
8	M	0 0	0 18	8	Th	0 50	1 7	8	Th	11 35	11 51	8	W	0 26	0 43	8	Th	0 43	1 6	8	F	1 26	2 47
9	Th	0 34	0 51	9	F	1 21	1 39	9	F	0 22	0 39	9	M	1 2	1 20	9	W	0 43	1 6	9	S	2 20	3 40
10	M	1 9	1 27	10	S	1 55	2 11	10	S	0 55	1 12	10	Th	1 40	2 1	10	Th	1 29	2 46	10	S	3 12	4 42
11	Th	1 44	2 0	11	M	2 28	2 44	11	M	1 28	1 44	11	W	2 23	2 46	11	Th	2 19	3 45	11	S	4 9	5 49
12	F	2 18	2 36	12	Th	3 2	3 22	12	Th	2 0	2 18	12	Th	3 12	3 41	12	F	3 14	5 1	12	Th	5 13	6 56
13	S	2 54	3 15	13	W	3 43	4 7	13	W	2 38	2 57	13	F	4 17	5 1	13	S	4 22	6 31	13	W	6 25	7 56
14	M	3 35	3 56	14	Th	4 36	5 11	14	Th	3 21	3 45	14	S	5 52	6 45	14	M	5 47	7 40	14	Th	8 23	9 49
15	Th	4 20	4 47	15	W	5 52	6 43	15	W	4 15	4 56	15	Th	7 32	8 10	15	Th	8 9	8 35	15	F	9 14	9 59
16	F	5 17	5 53	16	Th	7 35	8 21	16	F	5 44	6 42	16	M	8 41	9 9	16	W	9 0	9 23	16	S	10 1	10 21
17	M	6 33	7 12	17	S	9 3	9 39	17	S	7 35	8 23	17	Th	9 32	9 54	17	Th	9 43	10 3	17	S	10 42	11 3
18	Th	7 51	8 23	18	Th	10 7	10 31	18	Th	9 1	9 32	18	W	10 13	10 32	18	F	10 23	10 43	18	M	11 22	11 42
19	F	9 5	9 38	19	M	10 56	11 0	19	M	9 58	10 30	19	Th	10 62	11 10	19	S	11 3	11 21	19	Th	0 21	0 40
20	S	10 6	10 32	20	Th	11 43	0 26	20	Th	10 40	11 0	20	F	11 29	11 46	20	S	11 39	11 58	20	W	0 58	1 16
21	M	11 1	11 23	21	W	0 45	0 45	21	W	11 20	11 39	21	S	0 22	0 5	21	Th	0 36	0 53	21	Th	1 33	1 52
22	Th	11 55	0 45	22	Th	0 45	1 4	22	Th	11 58	0 34	22	M	0 22	0 39	22	Th	1 28	1 28	22	S	2 9	2 29
23	M	0 23	0 45	23	F	1 23	1 41	23	F	0 17	0 34	23	W	0 56	1 13	23	W	1 11	1 28	23	S	3 2	3 7
24	Th	1 8	1 30	24	S	1 57	2 14	24	S	0 51	1 8	24	Th	1 30	1 46	24	Th	1 47	2 4	24	S	3 47	3 49
25	Th	1 50	2 10	25	Th	2 30	2 46	25	Th	1 24	1 40	25	M	2 4	2 21	25	F	2 24	2 45	25	Th	4 14	4 41
26	F	2 30	2 49	26	M	3 2	3 20	26	M	1 55	2 11	26	W	3 26	3 55	26	S	3 7	3 31	26	W	5 9	5 40
27	S	3 7	3 36	27	Th	3 89	3 20	27	Th	2 27	2 44	27	F	4 28	5 8	27	Th	3 68	4 39	27	W	6 13	6 49
28	M	3 45	4 5	28	W	4 27	5 2	28	W	3 4	3 24	28	Th	5 52	6 39	28	Th	5 1	5 48	28	F	7 20	7 50
29	Th	4 28	4 54	29	Th	5 1	5 48	29	Th	3 50	4 22	29	M	7 19	7 50	29	W	7 19	7 46	29	W	8 20	8 50
30	M	5 25	6 1	30	F	6 41	7 30	30	F	5 1	5 48	30	M	7 19	7 50	30	W	7 19	7 46	30	F	8 20	8 50
31	W	6 45	7 27	31	S			31	S			31	M			31	Th	8 13	8 37	31	S		

Garston tides 7 minutes later than Liverpool each day.

## DAILY TIDE TABLES AT LIVERPOOL FOR THE YEAR 1894—Continued.

JULY.				AUGUST.				SEPTEMBER.				OCTOBER.				NOVEMBER.				DECEMBER.			
LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.		LIVERPOOL High Water.	
Date.	Day.	Morn.		Date.	Day.	Morn.		Date.	Day.	Morn.		Date.	Day.	Morn.		Date.	Day.	Morn.		Date.	Day.	Morn.	
		h	m			h	m			h	m			h	m			h	m			h	m
1	1	9 18	11 29	1	1	9 00	11 29	1	1	8 55	11 29	1	1	8 50	11 29	1	1	8 45	11 29	1	1	8 40	11 29
2	2	9 36	11 33	2	2	9 18	11 33	2	2	9 00	11 33	2	2	8 55	11 33	2	2	8 50	11 33	2	2	8 45	11 33
3	3	9 54	11 37	3	3	9 36	11 37	3	3	9 18	11 37	3	3	9 00	11 37	3	3	8 55	11 37	3	3	8 50	11 37
4	4	10 12	11 41	4	4	9 54	11 41	4	4	9 36	11 41	4	4	9 18	11 41	4	4	9 00	11 41	4	4	8 55	11 41
5	5	10 30	11 45	5	5	10 12	11 45	5	5	9 54	11 45	5	5	9 36	11 45	5	5	9 18	11 45	5	5	9 00	11 45
6	6	10 48	11 49	6	6	10 30	11 49	6	6	10 12	11 49	6	6	9 54	11 49	6	6	9 36	11 49	6	6	9 18	11 49
7	7	11 6	11 53	7	7	10 48	11 53	7	7	10 30	11 53	7	7	10 12	11 53	7	7	9 54	11 53	7	7	9 36	11 53
8	8	11 24	11 57	8	8	11 6	11 57	8	8	10 48	11 57	8	8	10 30	11 57	8	8	10 12	11 57	8	8	9 54	11 57
9	9	11 42	12 1	9	9	11 24	12 1	9	9	11 6	12 1	9	9	10 48	12 1	9	9	10 30	12 1	9	9	10 12	12 1
10	10	12 0	12 5	10	10	11 42	12 5	10	10	11 24	12 5	10	10	11 6	12 5	10	10	10 48	12 5	10	10	10 30	12 5
11	11	12 18	12 9	11	11	12 0	12 9	11	11	11 42	12 9	11	11	11 24	12 9	11	11	11 6	12 9	11	11	10 48	12 9
12	12	12 36	12 13	12	12	12 18	12 13	12	12	12 0	12 13	12	12	11 42	12 13	12	12	11 24	12 13	12	12	11 6	12 13
13	13	12 54	12 17	13	13	12 36	12 17	13	13	12 18	12 17	13	13	12 0	12 17	13	13	11 42	12 17	13	13	11 24	12 17
14	14	1 12	12 21	14	14	12 54	12 21	14	14	12 36	12 21	14	14	12 18	12 21	14	14	12 0	12 21	14	14	11 42	12 21
15	15	1 30	12 25	15	15	1 12	12 25	15	15	1 0	12 25	15	15	1 12	12 25	15	15	1 0	12 25	15	15	1 12	12 25
16	16	1 48	12 29	16	16	1 30	12 29	16	16	1 12	12 29	16	16	1 0	12 29	16	16	1 12	12 29	16	16	1 0	12 29
17	17	2 6	12 33	17	17	1 48	12 33	17	17	1 30	12 33	17	17	1 12	12 33	17	17	1 0	12 33	17	17	1 12	12 33
18	18	2 24	12 37	18	18	2 6	12 37	18	18	1 48	12 37	18	18	1 30	12 37	18	18	1 12	12 37	18	18	1 0	12 37
19	19	2 42	12 41	19	19	2 24	12 41	19	19	2 6	12 41	19	19	1 48	12 41	19	19	1 30	12 41	19	19	1 12	12 41
20	20	3 0	12 45	20	20	2 42	12 45	20	20	2 24	12 45	20	20	2 6	12 45	20	20	1 48	12 45	20	20	1 30	12 45
21	21	3 18	12 49	21	21	3 0	12 49	21	21	2 42	12 49	21	21	2 24	12 49	21	21	2 6	12 49	21	21	1 48	12 49
22	22	3 36	12 53	22	22	3 18	12 53	22	22	3 0	12 53	22	22	2 42	12 53	22	22	2 24	12 53	22	22	2 6	12 53
23	23	3 54	12 57	23	23	3 36	12 57	23	23	3 18	12 57	23	23	3 0	12 57	23	23	2 42	12 57	23	23	2 24	12 57
24	24	4 12	1 0	24	24	3 54	1 0	24	24	3 36	1 0	24	24	3 18	1 0	24	24	3 0	1 0	24	24	2 42	1 0
25	25	4 30	1 4	25	25	4 12	1 4	25	25	3 54	1 4	25	25	3 36	1 4	25	25	3 18	1 4	25	25	3 0	1 4
26	26	4 48	1 8	26	26	4 30	1 8	26	26	4 12	1 8	26	26	3 54	1 8	26	26	3 36	1 8	26	26	3 18	1 8
27	27	5 6	1 12	27	27	4 48	1 12	27	27	4 30	1 12	27	27	4 12	1 12	27	27	3 54	1 12	27	27	3 36	1 12
28	28	5 24	1 16	28	28	5 6	1 16	28	28	4 48	1 16	28	28	4 30	1 16	28	28	4 12	1 16	28	28	3 54	1 16
29	29	5 42	1 20	29	29	5 24	1 20	29	29	5 6	1 20	29	29	4 48	1 20	29	29	4 30	1 20	29	29	4 12	1 20
30	30	6 0	1 24	30	30	5 42	1 24	30	30	5 24	1 24	30	30	5 6	1 24	30	30	4 48	1 24	30	30	4 30	1 24
31	31	6 18	1 28	31	31	6 0	1 28	31	31	5 42	1 28	31	31	5 24	1 28	31	31	5 6	1 28	31	31	4 48	1 28

Garston tides 7 minutes later than Liverpool each day.

## T A B L E

SHOWING THE NUMBER OF DAYS BETWEEN ANY TWO DATES; ALSO SHOWING THE NUMBER OF DAYS FROM ANY DAY THROUGHOUT THE YEAR TO THE 31<sup>ST</sup> OF DECEMBER, THE USUAL PERIOD TO WHICH INTEREST IS CALCULATED.

JANUARY.			FEBRUARY.			MARCH.			APRIL.			MAY.			JUNE.		
Jan.	Number.	Days to Dec. 31.	Feb.	Number.	Days to Dec. 31.	Mar.	Number.	Days to Dec. 31.	April.	Number.	Days to Dec. 31.	May.	Number.	Days to Dec. 31.	June.	Number.	Days to Dec. 31.
1	1	364	1	32	333	1	60	305	1	91	274	1	121	244	1	152	213
2	2	363	2	33	332	2	61	304	2	92	273	2	122	243	2	153	212
3	3	362	3	34	331	3	62	303	3	93	272	3	123	242	3	154	211
4	4	361	4	35	330	4	63	302	4	94	271	4	124	241	4	155	210
5	5	360	5	36	329	5	64	301	5	95	270	5	125	240	5	156	209
6	6	359	6	37	328	6	65	300	6	96	269	6	126	239	6	157	208
7	7	358	7	38	327	7	66	299	7	97	268	7	127	238	7	158	207
8	8	357	8	39	326	8	67	298	8	98	267	8	128	237	8	159	206
9	9	356	9	40	325	9	68	297	9	99	266	9	129	236	9	160	205
10	10	355	10	41	324	10	69	296	10	100	265	10	130	235	10	161	204
11	11	354	11	42	323	11	70	295	11	101	264	11	131	234	11	162	203
12	12	353	12	43	322	12	71	294	12	102	263	12	132	233	12	163	202
13	13	352	13	44	321	13	72	293	13	103	262	13	133	232	13	164	201
14	14	351	14	45	320	14	73	292	14	104	261	14	134	231	14	165	200
15	15	350	15	46	319	15	74	291	15	105	260	15	135	230	15	166	199
16	16	349	16	47	318	16	75	290	16	106	259	16	136	229	16	167	198
17	17	348	17	48	317	17	76	289	17	107	258	17	137	228	17	168	197
18	18	347	18	49	316	18	77	288	18	108	257	18	138	227	18	169	196
19	19	346	19	50	315	19	78	287	19	109	256	19	139	226	19	170	195
20	20	345	20	51	314	20	79	286	20	110	255	20	140	225	20	171	194
21	21	344	21	52	313	21	80	285	21	111	254	21	141	224	21	172	193
22	22	343	22	53	312	22	81	284	22	112	253	22	142	223	22	173	192
23	23	342	23	54	311	23	82	283	23	113	252	23	143	222	23	174	191
24	24	341	24	55	310	24	83	282	24	114	251	24	144	221	24	175	190
25	25	340	25	56	309	25	84	281	25	115	250	25	145	220	25	176	189
26	26	339	26	57	308	26	85	280	26	116	249	26	146	219	26	177	188
27	27	338	27	58	307	27	86	279	27	117	248	27	147	218	27	178	187
28	28	337	28	59	306	28	87	278	28	118	247	28	148	217	28	179	186
29	29	336				29	88	277	29	119	246	29	149	216	29	180	185
30	30	335				30	89	276	30	120	245	30	150	215	30	181	184
31	31	334				31	90	275				31	151	214			

T A B L E  
 SHOWING the NUMBER of DAYS between any two DATES, &c.—CONTINUED.

JULY.			AUGUST.			SEPTEMBER.			OCTOBER.			NOVEMBER.			DECEMBER.		
July.	Number.	Days to Dec. 31.	Aug.	Number.	Days to Dec. 31.	Sept.	Number.	Days to Dec. 31.	Oct.	Number.	Days to Dec. 31.	Nov.	Number.	Days to Dec. 31.	Dec.	Number.	Days to Dec. 31.
1	182	183	1	213	152	1	244	121	1	274	91	1	305	60	1	335	30
2	183	182	2	214	151	2	245	120	2	275	90	2	306	59	2	336	29
3	184	181	3	215	150	3	246	119	3	276	89	3	307	58	3	337	28
4	185	180	4	216	149	4	247	118	4	277	88	4	308	57	4	338	27
5	186	179	5	217	148	5	248	117	5	278	87	5	309	56	5	339	26
6	187	178	6	218	147	6	249	116	6	279	86	6	310	55	6	340	25
7	188	177	7	219	146	7	250	115	7	280	85	7	311	54	7	341	24
8	189	176	8	220	145	8	251	114	8	281	84	8	312	53	8	342	23
9	190	175	9	221	144	9	252	113	9	282	83	9	313	52	9	343	22
10	191	174	10	222	143	10	253	112	10	283	82	10	314	51	10	344	21
11	192	173	11	223	142	11	254	111	11	284	81	11	315	50	11	345	20
12	193	172	12	224	141	12	255	110	12	285	80	12	316	49	12	346	19
13	194	171	13	225	140	13	256	109	13	286	79	13	317	48	13	347	18
14	195	170	14	226	139	14	257	108	14	287	78	14	318	47	14	348	17
15	196	169	15	227	138	15	258	107	15	288	77	15	319	46	15	349	16
16	197	168	16	228	137	16	259	106	16	289	76	16	320	45	16	350	15
17	198	167	17	229	136	17	260	105	17	290	75	17	321	44	17	351	14
18	199	166	18	230	135	18	261	104	18	291	74	18	322	43	18	352	13
19	200	165	19	231	134	19	262	103	19	292	73	19	323	42	19	353	12
20	201	164	20	232	133	20	263	102	20	293	72	20	324	41	20	354	11
21	202	163	21	233	132	21	264	101	21	294	71	21	325	40	21	355	10
22	203	162	22	234	131	22	265	100	22	295	70	22	326	39	22	356	9
23	204	161	23	235	130	23	266	99	23	296	69	23	327	38	23	357	8
24	205	160	24	236	129	24	267	98	24	297	68	24	328	37	24	358	7
25	206	159	25	237	128	25	268	97	25	298	67	25	329	36	25	359	6
26	207	158	26	238	127	26	269	96	26	299	66	26	330	35	26	360	5
27	208	157	27	239	126	27	270	95	27	300	65	27	331	34	27	361	4
28	209	156	28	240	125	28	271	94	28	301	64	28	332	33	28	362	3
29	210	155	29	241	124	29	272	93	29	302	63	29	333	32	29	363	2
30	211	154	30	242	123	30	273	92	30	303	62	30	334	31	30	364	1
31	212	153	31	243	122				31	304	61				31	365	

## THE USE OF OIL ON ROUGH SEAS.

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**F**OR the use of oil on rough seas the following methods will be of great service:—

1. On free waves, that is, waves in deep water the effect is greatest.
2. In a surf, or waves breaking on a bar, where a mass of liquid is in actual motion in shallow water, the effect of the oil is uncertain, as nothing can prevent the larger waves, under such circumstances, from breaking; but it is of some service even here.
3. The thickest and heaviest oils are most effectual. Kerosene refined is of little use. When nothing else is obtainable, crude petroleum is serviceable; but all vegetable and animal oils, such as waste oil from the engines, have great effect.
4. If applied in such a manner as to spread to windward, a small quantity of oil is sufficient.
5. Both when lying to or running to, or in wearing, it is useful in a ship or boat.
6. When hoisting a boat up in a seaway at sea, it is highly probable that much time and injury to the boat would be saved by its application.
7. The oil, in cold water, not being able to spread freely, and being thickened by the lower temperature, will have its effect much reduced, varying according to the description of oil used.
8. Small canvas bags, capable of holding from one to two gallons of oil, hanging over the side in such manner as to be in the water, the bags being punctured with a sail needle, so as to expedite the leakage, appears to be the best method of application in a ship at sea. Circumstances should vary the position of these bags. They should be hung on either bow when running before the wind—for example, from the cathead—and should be allowed to tow in the water. The effect seems to be less with the wind on the quarter than in any other position, the waves coming up on the quarter, while the oil goes astern. The weather bow and another position further aft seem the best positions to hang the bags when lying to, and a sufficient length of line to allow them to draw windward as the ship drifts.
9. Oil poured overboard and allowed to float in ahead of the boat, with a bag towing astern, appears to be the best plan when crossing a bar with a flood tide. The effect, however, cannot be so much trusted. For the purpose of entering on a bar with the ebb tide, it appears to be useless to try oil.
10. It is recommended to pour oil overboard to windward before going alongside for boarding a wreck. In this case the effect must depend upon the set of the current and the circumstances of the depth of water.
11. It is recommended for a boat riding in bad weather from a sea anchor to fasten the bag to an endless line rove through a block on the sea anchor, the oil becoming diffused well ahead of the boat, and, if necessary, the bag can be readily hauled on board for refilling.



TABLE SHOWING THE NUMBER OF DAYS FROM ANY DAY OF ONE MONTH TO  
THE SAME DAY OF ANY OTHER MONTH.

NUMBER OF DAYS FROM DAY TO DAY.

FROM TO	JAN.	FEB.	MAR.	APRIL	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.
JANUARY	365	31	59	90	120	151	181	212	243	273	304	334
FEBRUARY..	334	365	28	59	89	120	150	181	212	242	273	303
MARCH....	306	337	365	31	61	92	122	153	184	214	245	275
APRIL ....	275	306	334	365	30	61	91	122	153	183	214	244
MAY.....	245	276	304	335	365	31	61	92	123	153	184	214
JUNE.....	214	245	273	304	334	365	30	61	92	122	153	183
JULY.....	184	215	243	274	304	335	365	31	62	92	123	153
AUGUST....	153	184	212	243	273	304	334	365	31	61	92	122
SEPTEMBER	122	153	181	212	242	273	303	334	365	30	61	91
OCTOBER ..	92	123	151	182	212	243	273	304	335	365	31	61
NOVEMBER..	61	92	120	151	181	212	242	273	304	334	365	30
DECEMBER.	31	62	90	121	151	182	212	243	274	304	335	365

*Example of Use of Table:*—To find the number of days from 16th August to 27th February. Find August in the side column and February at the top; the number at the intersection, viz., 184, is the number of days from 16th August to 16th February; add 11 (the difference between 16 and 27), and the sum 195 is the number required. Similarly, the number from 16th August to 5th February is 184 less 11, or 173.

RETURN SHOWING THE AVERAGE RETAIL PRICE PER POUND, AVOIRDUPOIS, OF THE ARTICLES OF DOMESTIC CONSUMPTION,  
MEDIUM QUALITIES, MENTIONED BELOW, IN SOME OF THE PRINCIPAL CITIES OF EUROPE, DURING THE YEAR 1892.  
(From Official Sources.)

ARTICLE.	Paris.	Lille.	Berlin.	Frankfort- on-Main.	Ham- burg.	Vieuna.	Buda- Pesth.	Prague.	Rome.	Florence	Brussels.
<b>BEEF:—</b>											
Prime . . . . .	1s. to 1s. 4d.	1s. 5 $\frac{1}{2}$ d.	10 $\frac{3}{4}$ d.	9d.	11 $\frac{1}{4}$ d.	8d.	8 $\frac{1}{4}$ d.	7d.	8 $\frac{1}{4}$ d.	9d.	10 $\frac{1}{4}$ d.
Medium . . . . .	7 $\frac{1}{2}$ d. to 10d.	11 $\frac{1}{2}$ d.	8 $\frac{3}{4}$ d.	8d.	9 $\frac{1}{2}$ d.	6 $\frac{1}{2}$ d.	6 $\frac{1}{2}$ d.	6 $\frac{1}{2}$ d.	6d.	7d.	8 $\frac{1}{4}$ d.
Inferior . . . . .	..	7 $\frac{1}{2}$ d.	6d.	7d.	7 $\frac{1}{2}$ d.	Av. 7d.	..	..	..	5d.	6 $\frac{1}{2}$ d.
<b>FLOUR:—</b>											
First quality . . . . .	2d. to 2 $\frac{1}{2}$ d.	2 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	2 $\frac{1}{2}$ d.	2d.	2d.	1 $\frac{1}{2}$ d.	2 $\frac{1}{2}$ d.	2d.	2 $\frac{1}{2}$ d.	1 $\frac{3}{4}$ d.
Second quality . . . . .	..	..	..	..	..	1 $\frac{3}{4}$ d.	..	..	..	2 $\frac{1}{2}$ d.	..
<b>WHEAT-BREAD:—</b>											
White household . . . . .	2d. to 2 $\frac{1}{2}$ d.	1 $\frac{3}{4}$ d.	2 $\frac{1}{2}$ d.	2d.	3d.	1 $\frac{3}{4}$ d.	1 $\frac{1}{2}$ d.	1 $\frac{3}{4}$ d.	2d.	2d.	1 $\frac{1}{2}$ d.
Second quality . . . . .	..	..	..	..	..	..	..	..	..	1 $\frac{1}{4}$ d.	..
Third quality . . . . .	..	..	..	..	..	..	..	..	..	1 $\frac{3}{4}$ d.	..
<b>POTATOES:—</b>											
For human consumption	4d. to 4 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	4d. to 4 $\frac{1}{2}$ d.	4d.	1d.	4d.	4d.	4d.	4d.	4d.	5d.
<b>RICE:—</b>											
For human consump- tion, without husk.	2d. to 2 $\frac{1}{2}$ d.	3 $\frac{1}{2}$ d.	3 $\frac{1}{2}$ d. to 3 $\frac{3}{4}$ d.	2d. to 5d.	3d.	3d.	..	2 $\frac{3}{4}$ d.	2 $\frac{1}{2}$ d.	2 $\frac{1}{2}$ d. to 3d.	1 $\frac{3}{4}$ d.
<b>SUGAR:—</b>											
Good white lump, cracked or sawed..	6 $\frac{1}{2}$ d.	5 $\frac{1}{2}$ d.	4 $\frac{1}{2}$ d. to 4 $\frac{3}{4}$ d.	4d. to 4 $\frac{1}{2}$ d.	4 $\frac{3}{4}$ d.	3 $\frac{3}{4}$ d. to 4d.	4d.	3 $\frac{3}{4}$ d.	7 $\frac{1}{2}$ d.	16 $\frac{1}{2}$ d. to 7 $\frac{1}{2}$ d.	4 $\frac{3}{4}$ d.
<b>COFFEE:—</b>											
Brazil or plantation, roasted and ground, without chicory or other coffee sub- stitute . . . . .	2s. 6d. fresh roast-d	2s. 0 $\frac{3}{4}$ d.	1s. 4 $\frac{1}{2}$ d.	1s. 6d.	1s. 5d.	1s. 8 $\frac{1}{2}$ d.	1s. 5 $\frac{1}{2}$ d. (raw)	1s. 8 $\frac{3}{4}$ d.	1s. 11d.	1s. 10d to 2s. 3 $\frac{1}{2}$ d.	1s. 2 $\frac{3}{4}$ d.

\* N.B.—The rate of exchange has been taken at twenty-six lire per £, as being the approximate average for the whole year (1892).

† Imported in the rough, and refined in Italy; the greater portion is stated to be "beet-root."

‡ The coffee is chiefly imported from the Dutch Colonies; Brazil coffee is little or not used. The above price refers to coffee *in the bean*, ground coffee is not generally sold in Brussels.

## TERMS AND ABBREVIATIONS COMMONLY USED IN BUSINESS.

A/c .....	Account.	D/S.....	Days after sight.
C .....	Currency.	% .....	Per cent.
\$ .....	A dollar.	@ ₧ lb .....	At per pound.
E. E. ..	Errors excepted.	B/L.....	Bill of lading.
E. & O. E.....	Errors and omissions excepted.	AD VALOREM ..	According to value.
F. O. B. ....	Free on board (delivered on deck without expense to the ship).	AFFIDAVIT ....	Statement on oath.
F. P. A. ....	Free of particular average.	AFFIRMATION..	Statement without an oath.
INST.....	Present month.	AGIO .....	The premium borne by a better sort of money above an inferior.
PROX.....	Next month.	ASSETS .....	A term for property in contradistinction to liabilities.
ULT.. ..	Last month.	BANCO .....	A continental term for bank money at Hamburg and other places.
D/D .....	Days after date.		
M/D.. ..	Months after date.		
DEAD FREIGHT.—The damage payable by one who engages to load a ship fully, and fails to do so.			
DEVIATION, in marine insurance, is that divergence from the voyage insured which releases the underwriter from his risk.			
DISCOUNT.—An allowance made for payment of money before due.			
POLICY.—The document containing the contract of insurance. A <i>Valued Policy</i> is when the interest insured is valued. An <i>Open Policy</i> is one in which the amount is left for subsequent proof. In an open policy where the value shipped does not equal the value insured, the difference is termed <i>over</i> <i>insurance</i> ; and the proportionable amount of premium returnable to the insurer is called a <i>return for short interest</i> .			
PRIMAGE.—A small allowance for the shipmaster's care of goods, now generally included in the freight.			
PRO RATA.—Payment in proportion to the various interests concerned.			
QUID PRO QUO.—Giving one thing for another.			
RESPONDENTIA.—A contract of loan by which goods in a ship are hypothecated to the lender, as in bottomry.			
ULLAGE.—The quantity a cask wants of being full.			

## A CALENDAR

FOR ASCERTAINING ANY DAY OF THE WEEK FOR ANY GIVEN TIME WITHIN  
THE PRESENT CENTURY.

YEARS 1801 TO 1900.

												31 Jan.	28 Feb.	31 Mar.	30 April	31 May.	30 June	31 July.	31 Aug.	30 Sept.	31 Oct.	30 Nov.	31 Dec.
1801	1807	1818	1829	1835	1846	1857	1863	1874	1885	1891		4	7	7	3	5	1	3	6	2	4	7	2
1802	1813	1819	1830	1841	1847	1858	1869	1875	1886	1897		5	1	1	4	6	2	4	7	3	5	1	3
1803	1814	1825	1831	1842	1853	1859	1870	1881	1887	1898		6	2	2	5	7	3	5	1	4	6	2	4
1805	1811	1822	1833	1839	1850	1861	1867	1878	1889	1895		2	5	5	1	3	6	1	4	7	2	5	7
1806	1817	1823	1834	1845	1851	1862	1873	1879	1890	..		3	6	6	2	4	7	2	5	1	3	6	1
1809	1815	1826	1837	1843	1854	1865	1871	1882	1893	1899		7	3	3	6	1	4	6	2	5	7	3	5
1810	1821	1827	1838	1849	1855	1866	1877	1883	1894	1900		1	4	4	7	2	5	7	3	6	1	4	6

NOTE.—To ascertain any day of the week in any year of the present century, first look in the table of years for the year required, and under the months are figures which refer to the corresponding figures at the head of the columns of days below. *For example:* To know what day of the week May 4 was on in the year 1876, in the table of years look for 1876, and in a parallel line, under May, is figure 1, which directs to column 1, in which it will be seen that May 4 fell on Thursday.

## LEAP YEARS.

				..	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1804	1832	1860	1888	7	3	4	7	2	5	7	3	6	1	4	6								
1808	1836	1864	1892	5	1	2	5	7	3	5	1	4	6	2	4								
1812	1840	1868	1896	3	6	7	3	5	1	3	6	2	4	7	2								
1816	1844	1872	..	1	4	5	1	3	6	1	4	7	2	5	7								
1820	1848	1876	..	6	2	3	6	1	4	6	2	5	7	3	5								
1824	1852	1880	..	4	7	1	4	6	2	4	7	3	5	1	3								
1828	1856	1884	..	2	5	6	2	4	7	2	5	1	3	6	1								

1	2	3	4	5	6	7
Monday 1	Tue-day 1	Wednesday 1	Thursday 1	Friday 1	Saturday 1	SUNDAY 1
Tuesday 2	Wednesday 2	Thursday 2	Friday 2	Saturday 2	SUNDAY 2	Monday 2
Wednesday 3	Thursday 3	Friday 3	Saturday 3	SUNDAY 3	Monday 3	Tuesday 3
Thursday 4	Friday 4	Saturday 4	SUNDAY 4	Monday 4	Tuesday 4	Wednesday 4
Friday 5	Saturday 5	SUNDAY 5	Monday 5	Tuesday 5	Wednesday 5	Thursday 5
Saturday 6	SUNDAY 6	Monday 6	Tuesday 6	Wednesday 6	Thursday 6	Friday 6
SUNDAY 7	Monday 7	Tuesday 7	Wednesday 7	Thursday 7	Friday 7	Saturday 7
Monday 8	Tuesday 8	Wednesday 8	Thursday 8	Friday 8	Saturday 8	SUNDAY 8
Tuesday 9	Wednesday 9	Thursday 9	Friday 9	Saturday 9	SUNDAY 9	Monday 9
Wednes. 10	Thursday 10	Friday 10	Saturday 10	SUNDAY 10	Monday 10	Tuesday 10
Thursday 11	Friday 11	Saturday 11	SUNDAY 11	Monday 11	Tuesday 11	Wednes. 11
Friday 12	Saturday 12	SUNDAY 12	Monday 12	Tuesday 12	Wednesday 12	Thursday 12
Saturday 13	SUNDAY 13	Monday 13	Tuesday 13	Wednesday 13	Thursday 13	Friday 13
SUNDAY 14	Monday 14	Tuesday 14	Wednesday 14	Thursday 14	Friday 14	Saturday 14
Monday 15	Tuesday 15	Wednesday 15	Thursday 15	Friday 15	Saturday 15	SUNDAY 15
Tuesday 16	Wednesday 16	Thursday 16	Friday 16	Saturday 16	SUNDAY 16	Monday 16
Wednes. 17	Thursday 17	Friday 17	Saturday 17	SUNDAY 17	Monday 17	Tuesday 17
Thursday 18	Friday 18	Saturday 18	SUNDAY 18	Monday 18	Tuesday 18	Wednesday 18
Friday 19	Saturday 19	SUNDAY 19	Monday 19	Tuesday 19	Wednesday 19	Thursday 19
Saturday 20	SUNDAY 20	Monday 20	Tuesday 20	Wednesday 20	Thursday 20	Friday 20
SUNDAY 21	Monday 21	Tuesday 21	Wednesday 21	Thursday 21	Friday 21	Saturday 21
Monday 22	Tuesday 22	Wednesday 22	Thursday 22	Friday 22	Saturday 22	SUNDAY 22
Tuesday 23	Wednesday 23	Thursday 23	Friday 23	Saturday 23	SUNDAY 23	Monday 23
Wednes. 24	Thursday 24	Friday 24	Saturday 24	SUNDAY 24	Monday 24	Tuesday 24
Thursday 25	Friday 25	Saturday 25	SUNDAY 25	Monday 25	Tuesday 25	Wednesday 25
Friday 26	Saturday 26	SUNDAY 26	Monday 26	Tuesday 26	Wednesday 26	Thursday 26
Saturday 27	SUNDAY 27	Monday 27	Tuesday 27	Wednesday 27	Thursday 27	Friday 27
SUNDAY 28	Monday 28	Tuesday 28	Wednesday 28	Thursday 28	Friday 28	Saturday 28
Monday 29	Tuesday 29	Wednesday 29	Thursday 29	Friday 29	Saturday 29	SUNDAY 29
Tuesday 30	Wednesday 30	Thursday 30	Friday 30	Saturday 30	SUNDAY 30	Monday 30
Wednes. 31	Thursday 31	Friday 31	Saturday 31	SUNDAY 31	Monday 31	Tuesday 31

## WEIGHTS AND MEASURES.

## TROY WEIGHT.

	Pennywts.	Grains.	gr.
Onnces.	1	= 24	dwt.
Pound.	1	= 20	= 480 oz.
1	= 12	= 240	= 5760 lb.
A carat = 4 grains. 100 Troy ounces = 190½ Onnces Avoirdup. is.			

## AVOIRDUPOIS WEIGHT.

					dr.	Ty.	gr.
				oz.		1	= 27 1/4
			lb	1	=	16	= 437 1/2
			1	=		16	= 7000
		st.					
	qr.	1	=	14	=	224	= 3584
	cwt.	1	=	2	=	28	= 448
		2	=	28	=	448	= 7168
Ton.	1	=	4	=	112	=	1792
							28672
1	=	20	=	80	=	160	= 2240
							35840
Ton.	cwt.	qr.	st.	lb.	oz.	dr.	gr.

A Cental = 100 pounds. 100 Onnces Avoirdupois = 91½ Onnces Troy.

The Apothecaries' Weight is now the same as the Avoirdupois.

## LINEAL MEASURE, OR MEASURE OF LENGTH.

			yds.	ft.	in.
		pl.	1 =	3 =	36
	ch.	1 =	5½ =	16½ =	198
	fur.	1 =	4 =	22 =	792
Mile.	1 =	10 =	40 =	220 =	660 = 7920
1	= 8 =	80 =	320 =	1760 =	5280 = 63360

A league = 3 miles. A hand = 4 inches. A fathom = 6 feet.

A league = 3 miles. A hand = 4 inches. A fathom = 6 feet.

Geographical degree = 60 geographical or nautical miles = 69·121 imperial miles.

Geographical mile = 1·150 imperial miles. A military pace = 2½ feet.

## SOLID OR CUBIC MEASURE.

	Cubic feet.	Cubic inches.
Cubic yard.	1	= 1728
1	= 27	= 46656
1 Ton of Shipping	= 40 cubic feet.	
1 Barrel Bulk	= 5 cubic feet.	

## LIQUID MEASURE OF CAPACITY.

	Quarts.	Pinta.	Gills.
Gallon.	1	= 2	= 4
1	= 4	= 8	= 32

A hogshead (hhd.) contains 63 gallons. A pipe is 2 hogsheads, and 2 pipes form a tun. All liquids are measured by this table.

## GRAIN MEASURE, &amp;C., OR DRY MEASURE OF CAPACITY.

	Bushels.	Pecks.	Gallons.
Quarter.	1	= 2	= 8
1	= 8 = 32 = 64		
1 Boll of Wheat	= 4 bushels nearly.		
1 Boll of Barley	= 6 " "		
5 Bushels are a sack.			
5 Quarters make a load.			

## SQUARE OR LAND MEASURE.

		Sq. feet.	Sq. in.
	Sq. yards.	1 =	144
	Sq. poles.	1 =	9 = 1296
	Sq. rods.	1 = 30½ =	272¼ = 39204
Sq. acre.	1 = 40 = 1210 =	10890 =	1568160
1	= 4 = 160 = 4840 =	43560 =	6272640

1 square mile = 640 acres: 36 square yards = 1 rood of building: 100 sq. feet = 1 square of flooring: 272¼ sq. feet = 1 rood of bricklayer's work. The chain with which land is measured is 22 yards long, and 1 sq chain = 10,000 sq. link, contains 22 x 22 = 484 sq. yards: 10 sq. chains = 1 acre.

## TABLE OF TIME.

	Days.	Hours.	Minutes.	Seconds.
			1	= 60
		1	= 60	= 3600
Week.	1	= 24 = 1440		= 86400
1	= 7 = 168 = 10080			= 604800
1 Common Year	= 365 days, or 52 weeks 1 day.			
1 Leap Year	= 366 days, or 52 weeks 2 days.			
1 Solar Year	= 365 days 5 hours 48 minutes 49 seconds.			

## GEOGRAPHICAL OR NAUTICAL MEASURE.

1 Geographical mile	= { 1½ imperial mile of 6,076 feet.
3 " miles ..	= 1 league
60 " miles ..	= { 1 degree, marked deg. or [°].
360 " degs. or about 24,855½ imp. miles	= { Circumference of the earth.

## BREAD WEIGHT.

	lb.	oz.
A Peck Loaf weighs .....	17	6½
A Half Peck Loaf .....	8	11
A Quarter Loaf .....	4	5
A Peck or Stone of Flour .....	14	0
A Bushel of Flour .....	56	6
A Sack of Flour, or 5 Bushels ..	280	0

## USEFUL WEIGHTS.

The following Table will be found useful when it is desired to ascertain the weight of a letter or other article, and suitable weights are not at hand. The weight given is that of coins fairly worn; allowance must be made if those used be new or very old.

½ oz. ....	Halfpenny and threepenny piece.
¼ " ....	One penny piece.
⅓ " ....	Florin and sixpence.
⅔ " ....	Three pence.
2 " ....	4 half-crowns and one shilling.
4 " ....	4 florins, 4 half-crowns, 2½ pence.

## BOOKS.

	Pages.	Leaves.	Sheets.
Folio Books .....	4 or 2	make	1
Quarto, or 4to .....	8	" 4	" 1
Octavo, 8vo .....	16	" 8	" 1
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No.	$\frac{1}{4}d.$	$\frac{1}{2}d.$	$\frac{3}{4}d.$	1d.	2d.	3d.	4d.	5d.	6d.	7d.	8d.	9d.	10d.	11d.	No.
1	0 0 $\frac{1}{4}$	0 0 $\frac{1}{2}$	0 0 $\frac{3}{4}$	0 1	0 2	0 3	0 4	0 5	0 6	0 7	0 8	0 9	0 10	0 11	1
2	0 0 $\frac{1}{4}$	0 1	0 1 $\frac{1}{4}$	0 2	0 4	0 6	0 8	0 10	1 0	1 1	1 2	1 3	1 4	1 5	2
3	0 0 $\frac{1}{4}$	0 1 $\frac{1}{2}$	0 2 $\frac{1}{4}$	0 3	0 6	0 9	1 0	1 1	1 2	1 3	1 4	1 5	1 6	1 7	3
4	0 1	0 2	0 3	0 4	0 8	1 0	1 1	1 2	1 3	1 4	1 5	1 6	1 7	1 8	4
5	0 1 $\frac{1}{4}$	0 2 $\frac{1}{2}$	0 3 $\frac{1}{4}$	0 5	0 10	1 3	1 5	2 0	2 1	2 2	2 3	2 4	2 5	2 6	5
6	0 1 $\frac{1}{4}$	0 3	0 4 $\frac{1}{4}$	0 6	1 0	1 6	2 0	2 6	3 0	3 6	4 0	4 6	5 0	5 6	6
7	0 1 $\frac{1}{4}$	0 3 $\frac{1}{2}$	0 5 $\frac{1}{4}$	0 7	1 2	1 9	2 4	2 11	3 6	4 1	4 8	5 3	5 10	6 5	7
8	0 2	0 4	0 6	0 8	1 4	2 0	2 8	3 4	4 0	4 8	5 4	6 0	6 8	7 4	8
9	0 2 $\frac{1}{4}$	0 4 $\frac{1}{2}$	0 6 $\frac{3}{4}$	0 9	1 6	2 3	3 0	3 9	4 6	5 3	6 0	6 9	7 6	8 3	9
10	0 2 $\frac{1}{2}$	0 5	0 7 $\frac{1}{2}$	0 10	1 8	2 6	3 4	4 2	5 0	5 10	6 8	7 6	8 4	9 2	10
11	0 2 $\frac{3}{4}$	0 5 $\frac{1}{2}$	0 8 $\frac{1}{4}$	0 11	1 10	2 9	3 8	4 7	5 6	6 5	7 4	8 3	9 2	10 1	11
12	0 3	0 6	0 9	1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0	9 0	10 0	11 0	12
13	0 3 $\frac{1}{4}$	0 6 $\frac{3}{4}$	0 9 $\frac{1}{2}$	1 1	2 2	3 3	4 4	5 5	6 6	7 7	8 8	9 9	10 10	11 11	13
14	0 3 $\frac{1}{4}$	0 7	0 10 $\frac{1}{4}$	1 2	2 4	3 6	4 8	5 10	7 0	8 2	9 4	10 6	11 8	12 10	14
15	0 3 $\frac{1}{2}$	0 7 $\frac{1}{2}$	0 11 $\frac{1}{4}$	1 3	2 6	3 9	5 0	6 3	7 6	8 9	10 0	11 3	12 6	13 9	15
16	0 4	0 8	1 0	1 4	2 8	4 0	5 4	6 8	8 0	9 4	10 8	12 0	13 4	14 8	16
17	0 4 $\frac{1}{4}$	0 8 $\frac{1}{2}$	1 0 $\frac{3}{4}$	1 5	2 10	4 3	5 8	7 1	8 6	9 11	11 4	12 9	14 2	15 7	17
18	0 4 $\frac{1}{4}$	0 9	1 1 $\frac{1}{4}$	1 6	3 0	4 6	6 0	7 6	9 0	10 6	12 0	13 6	15 0	16 6	18
19	0 4 $\frac{1}{2}$	0 9 $\frac{1}{2}$	1 2 $\frac{1}{4}$	1 7	3 2	4 9	6 4	7 11	9 6	11 1	12 8	14 3	15 10	17 5	19
20	0 5	0 10	1 3	1 8	3 4	5 0	6 8	8 4	10 0	11 8	13 4	15 0	16 8	18 4	20
21	0 5 $\frac{1}{4}$	0 10 $\frac{1}{2}$	1 3 $\frac{3}{4}$	1 9	3 6	5 3	7 0	8 9	10 6	12 3	14 0	15 9	17 6	19 3	21
22	0 5 $\frac{1}{4}$	0 11	1 4 $\frac{1}{4}$	1 10	3 8	5 6	7 4	9 2	11 0	12 10	14 8	16 6	18 4	20 2	22
23	0 5 $\frac{1}{2}$	0 11 $\frac{1}{2}$	1 5 $\frac{1}{4}$	1 11	3 10	5 9	7 8	9 7	11 6	13 5	15 4	17 3	19 2	21 1	23
24	0 6	1 0	1 6	2 0	4 0	6 0	8 0	10 0	12 0	14 0	16 0	18 0	20 0	22 0	24
25	0 6 $\frac{1}{4}$	1 0 $\frac{1}{4}$	1 6 $\frac{3}{4}$	2 1	4 2	6 3	8 4	10 5	12 6	14 7	16 8	18 9	20 10	22 11	25
26	0 6 $\frac{1}{4}$	1 1	1 7 $\frac{1}{4}$	2 2	4 4	6 6	8 8	10 10	13 0	15 2	17 4	19 6	21 8	23 10	26
27	0 6 $\frac{1}{2}$	1 1 $\frac{1}{2}$	1 8 $\frac{1}{4}$	2 3	4 6	6 9	9 0	11 3	13 6	15 9	18 0	20 3	22 6	24 9	27
28	0 7	1 2	1 9	2 4	4 8	7 0	9 4	11 8	14 0	16 4	18 8	21 0	23 4	25 8	28
29	0 7 $\frac{1}{4}$	1 2 $\frac{1}{4}$	1 9 $\frac{3}{4}$	2 5	4 10	7 3	9 8	12 1	14 6	16 11	19 4	21 9	24 2	26 7	29
30	0 7 $\frac{1}{2}$	1 3	1 10 $\frac{1}{2}$	2 6	5 0	7 6	10 0	12 6	15 0	17 6	20 0	22 6	25 0	27 6	30
33	0 8 $\frac{1}{4}$	1 4 $\frac{1}{2}$	2 2	2 9	5 6	8 3	11 0	13 9	16 6	19 3	22 0	24 9	27 6	30 3	33
36	0 9	1 6	2 3	3 0	6 0	9 0	12 0	15 0	18 0	21 0	24 0	27 0	30 0	33 0	36
40	0 10	1 8	2 6	3 4	6 8	10 0	13 4	16 8	20 0	23 4	26 8	30 0	33 4	36 8	40
42	0 10 $\frac{1}{4}$	1 9	2 7 $\frac{1}{4}$	3 6	7 0	10 6	14 0	17 6	21 0	24 6	28 0	31 6	35 0	38 6	42
45	0 11 $\frac{1}{4}$	1 10 $\frac{1}{2}$	2 9 $\frac{3}{4}$	3 9	7 6	11 3	15 0	18 9	22 6	26 3	30 0	33 9	37 6	41 3	45
48	1 0	2 0	3 0	4 0	8 0	12 0	16 0	20 0	24 0	28 0	32 0	36 0	40 0	44 0	48
50	1 0 $\frac{1}{4}$	2 1	3 1 $\frac{1}{4}$	4 2	8 4	12 6	16 8	20 10	25 0	29 2	33 4	37 6	41 8	45 10	50
51	1 0 $\frac{1}{4}$	2 1 $\frac{1}{4}$	3 2 $\frac{1}{4}$	4 3	8 6	12 9	17 0	21 3	25 6	29 9	34 0	38 3	42 6	46 9	51
52	1 1	2 2	3 3	4 4	8 8	13 0	17 4	21 8	26 0	30 4	34 8	39 0	43 4	47 8	52
53	1 1 $\frac{1}{4}$	2 2 $\frac{1}{4}$	3 3 $\frac{3}{4}$	4 5	9 0	13 3	17 8	22 1	26 6	30 11	35 4	39 9	44 2	48 7	53
54	1 1 $\frac{1}{2}$	2 3	3 4 $\frac{1}{2}$	4 6	9 0	13 6	18 0	22 6	27 0	31 6	36 0	40 6	45 0	49 6	54
56	1 2	2 4	3 6	4 8	9 4	14 0	18 8	23 4	28 0	32 8	37 4	42 0	46 8	51 4	56
60	1 3	2 6	3 9	5 0	10 0	15 0	20 0	25 0	30 0	35 0	40 0	45 0	50 0	55 0	60

## WAGES TABLE.

Per Year.	Per Month.	Per Week.	Per Day.	Per Year.	Per Month.	Per Week.	Per Day.	Per Year.	Per Month.	Per Week.	Per Day.
£ s.	s. d.	s. d.	s. d.	£ s.	£ s. d.	s. d.	s. d.	£ s.	£ s. d.	£ s. d.	£ s. d.
0 10	0 10	0 2 $\frac{1}{2}$	0 0 $\frac{1}{4}$	8 0	0 13 4	3 1	0 5 $\frac{1}{2}$	18 0	1 10 0	0 6 11	0 0 11 $\frac{1}{4}$
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1 10	2 6	0 7	0 1	8 10	0 14 2	3 3 $\frac{1}{2}$	0 5 $\frac{3}{4}$	19 0	1 11 8	0 7 3 $\frac{1}{2}$	0 1 0 $\frac{1}{4}$
2 0	3 4	0 9 $\frac{1}{2}$	0 1 $\frac{1}{4}$	9 0	0 15 0	3 5 $\frac{1}{2}$	0 6	20 0	1 13 4	0 7 8 $\frac{1}{2}$	0 1 1 $\frac{1}{4}$
2 2	3 6	0 9 $\frac{3}{4}$	0 1 $\frac{3}{4}$	9 9	0 15 9	3 7 $\frac{1}{2}$	0 6 $\frac{1}{2}$	30 0	2 10 0	0 11 6 $\frac{1}{2}$	0 1 7 $\frac{1}{4}$
2 10	4 2	0 11	0 1 $\frac{1}{2}$	10 0	0 16 8	3 10 $\frac{1}{2}$	0 6 $\frac{3}{4}$	40 0	3 6 8	0 15 4 $\frac{1}{2}$	0 2 2 $\frac{1}{4}$
3 0	5 0	1 1 $\frac{1}{2}$	0 2	10 10	0 17 6	4 0	0 7	50 0	4 3 4	0 19 2 $\frac{1}{2}$	0 2 9
3 3	5 3	1 2 $\frac{1}{4}$	0 2	11 0	0 18 4	4 3 $\frac{1}{2}$	0 7 $\frac{1}{2}$	60 0	5 0 0	1 3 1	0 3 3 $\frac{1}{4}$
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4 0	6 8	1 6 $\frac{1}{2}$	0 2 $\frac{3}{4}$	12 0	1 0 0	4 7 $\frac{1}{2}$	0 8	80 0	6 13 4	1 10 9 $\frac{1}{2}$	0 4 4 $\frac{1}{4}$
4 4	7 0	1 7 $\frac{1}{2}$	0 2 $\frac{3}{4}$	12 12	1 1 0	4 10 $\frac{1}{2}$	0 8 $\frac{1}{2}$	90 0	7 10 0	1 14 7 $\frac{1}{2}$	0 4 11 $\frac{1}{2}$
4 10	7 6	1 8 $\frac{1}{2}$	0 3	13 0	1 1 8	5 0	0 8 $\frac{1}{2}$	100 0	8 6 8	1 18 5 $\frac{1}{2}$	0 5 5 $\frac{1}{4}$
5 0	8 4	1 11	0 3 $\frac{1}{2}$	13 13	1 2 9	5 3	0 9	200 0	16 13 4	3 16 11	0 10 11 $\frac{1}{4}$
5 5	8 9	2 0 $\frac{1}{2}$	0 3 $\frac{3}{4}$	14 0	1 3 4	5 4 $\frac{1}{2}$	0 9 $\frac{1}{2}$	300 0	25 0 0	5 15 4 $\frac{1}{2}$	0 16 5 $\frac{1}{4}$
5 10	9 2	2 1 $\frac{1}{2}$	0 3 $\frac{3}{4}$	14 14	1 4 6	5 7 $\frac{1}{2}$	0 9 $\frac{3}{4}$	400 0	33 6 8	7 13 10 $\frac{1}{2}$	1 1 11
6 0	10 0	2 3 $\frac{1}{2}$	0 4	15 0	1 5 0	5 9 $\frac{1}{2}$	0 9 $\frac{3}{4}$	500 0	41 13 4	9 12 3 $\frac{1}{2}$	1 7 4 $\frac{1}{4}$
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7 0	11 8	2 8 $\frac{1}{2}$	0 4 $\frac{3}{4}$	16 16	1 8 0	6 5 $\frac{1}{2}$	0 11 $\frac{1}{2}$	800 0	66 13 4	15 7 8 $\frac{1}{2}$	2 3 10
7 7	12 3	2 10	0 4 $\frac{3}{4}$	17 0	1 8 4	6 6 $\frac{1}{2}$	0 11 $\frac{1}{2}$	900 0	75 0 0	17 6 13 $\frac{1}{2}$	2 9 3 $\frac{1}{4}$
7 10	12 6	2 10 $\frac{1}{2}$	0 5	17 17	1 9 0	6 10 $\frac{1}{2}$	0 11 $\frac{3}{4}$	1000 0	83 8 8	19 4 7 $\frac{1}{2}$	2 14 9 $\frac{1}{4}$

## CIVIL LIST PENSIONS.

LIST OF ALL PENSIONS GRANTED DURING THE YEAR ENDED 20TH JUNE, 1893,  
AND CHARGED UPON THE CIVIL LIST.

(From Official Sources.)

Date of Grant. 1892.	NAME.	Amount of Pension.
August 15 .....	Mr. WILLIAM SMYTH ROCKSTRO .....	£100
	In consideration of his services to musical literature, and of his inadequate means of support.	
August 15 .....	Mrs. CASHEL HOEY .....	50
	In consideration of her literary merits, and of her inadequate means of support.	
November 29...	Mrs. EMILIE DITTMAR .....	75
	In consideration of the services to chemical science rendered by her late husband, Professor William Dittmar, F.R.S.	
November 29...	Miss LUCY MARY JANE GARNETT .....	100
	In recognition of her literary merits, and to enable her to prosecute her researches in oriental folk lore.	
November 29...	Mr. ROBERT BROWN, jun.....	100
	In consideration of his merits as a student of archæology.	
November 29...	Dr. SAMUEL DAVIDSON.....	100
	In recognition of the value of his works on theology and biblical criticism.	
1893.		
February 24...	Rev. RICHARD MORRIS .....	150
	In recognition of his merits as a student of early English literature and philology.	
February 24...	Miss MARGARET STOKES .....	100
	In consideration of her researches into early Christian art and archæology in Ireland.	
June 19.....	Mr. JOHN GWENOGVRYN EVANS .....	200
	To enable him to continue his researches in Welsh literature.	
June 19.....	Mrs. CORNELIA MINTO .....	75
	In consideration of the literary merits of her husband, the late Professor Minto, and of her inadequate means of support.	
June 19.....	Mrs. ANNIE S. C. ROGERS .....	50
	In recognition of the merits of her husband, the late Professor Thorold Rogers, as a writer upon political economy.	
June 19.....	Mrs. THERESE WOLSTENHOLME .....	50
	In recognition of the merits of her husband, the late Rev. Joseph Wolstenholme, as a mathematician, and of her straitened circumstances.	
June 19.....	Mrs. FRANCES E. TROLLOPE .....	50
	In consideration of the literary merits of her husband, the late Mr. Thomas Adolphus Trollope, and of her narrow means.	
Total.....		£1,200

## CO-OPERATIVE CONGRESSES.

No.	Year.	Date of Opening.	Where Held.	PRESIDENTS.		
				First Day. Inaugural Address delivered by	Second Day.	Third Day.
1	1869	May 31	London: Society of Arts, John-st., Adelphi	T. Hughes, M.P.	A. J. Mundella, M.P.	W. Morrison, M.P.
2	1870	June 6	Manchester: Memorial Hall	W. Morrison, M.P. [M.P.]	Rev. W. N. Molesworth, M.A.	J. T. Hibbert, M.P.
3	1871	April 10	Birmingham: Midland Institute	Hon. Auberon Herbert	C. Cattell	W. Morrison, M.P.
4	1872	" 1	Bolton: Co-operative Hall	T. Hughes, M.P.	E. V. Neale	W. Morrison, M.P.
5	1873	" 12	Newcastle: Mechanics' Institute	Joseph Cowen, jun.	W. Morrison, M.P.	T. Hughes, M.P.
6	1874	" 6	Halifax: Mechanics' Hall	Thomas Brassey, M.P.	W. Morrison	W. Morrison.
7	1875	Mar. 29	London: Co-operative Institute	Professor T. Rogers	T. Hughes, Q.C.	W. Morrison.
8	1876	April 17	Glasgow: Assembly-rooms, 138, Bath-st.	* Professor Caird	G. Anderson, M.P.	Baillie Collins.
9	1877	" 2	Leicester: Museum Hall	Professor Hodgson	Lloyd Jones	Abraham Greenwood
10	1878	" 22	Manchester: Co-op. Hall, Downing-st.	Hon. Auberon Herbert	Bishop of Manchester	Dr. John Watts.
11	1879	" 14	Gloucester: Corn Exchange	Marquis of Ripon	J. T. W. Mitchell	James Crabtree.
12	1880	May 17	Newcastle-on-Tyne: Bath-lane Schoolrm.	Professor Stuart	R. S. Watson	H. R. Bailey.
13	1881	June 6	Leeds: Albert Hall	Bishop of Durham	T. Hughes, Q.C.	James Crabtree.
14	1882	May 29	Oxford: Town Hall	Lord Derby	Councillor Pumphrey	George Hines.
15	1883	" 14	Edinburgh: Oddfellows' Hall	Lord Reay	William Maxwell	John Allan.
16	1884	June 2	Derby: Lecture Hall, Wardwick	Rt. Hon. W. E. Baxter, M.P.	A. Scotton	[Lincoln. Councillor Hartley,
17	1885	May 25	Oldham: Co-operative Hall, King-street.	Sedley Taylor	F. Hardern	Lewis Feber.
18	1886	June 14	Plymouth: Guildhall	Lloyd Jones	A. H. D. Acland, M.P.	J. H. Young.
19	1887	May 30	Carlisle: Her Majesty's Theatre	Earl of Morley	Sir W. Lawson, M.P.	Councillor Rule.
20	1888	" 21	Dewsbury: Industrial Hall	G. J. Holyoake	Marquis of Ripon	Jno. Cave, jun.
21	1889	June 10	Ipswich: Public Hall	E. V. Neale	B. Jones	G. Hines.
22	1890	May 26	Glasgow: City Hall	Professor A. Marshall	William Maxwell	James Deans.
23	1891	" 18	Lincoln: Drill Hall, Broadgate	Earl of Rosebery	D. M'Innes	J. Hepworth.
24	1892	June 6	Rochdale: Baillie-street Chapel	A. H. D. Acland, M.P.	A. Greenwood	Councillor Cheetham
25	1893	May 22	Bristol: Hall of the Y.M.C.A.	J. T. W. Mitchell	J. Clay, J.P.	W. H. Brown, C.C.
				Councillor G. Hawkins		

\* Professor Caird presided at this Congress; the inaugural address was delivered by Professor Hodgson. In all other cases the chairman for the day delivered the inaugural address.



CONTRIBUTIONS WHICH HAVE APPEARED IN "THE  
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# THE ENGLISH MILE COMPARED WITH OTHER EUROPEAN MEASURES.

	English Statute Mile.	English Geog. Mile.	French Kilomètre.	German Geog. Mile.	Russian Verst.
English Statute Mile....	1·000	0·867	1·609	0·217	1·508
English Geog. Mile ....	1·153	1·000	1·855	0·250	1·738
Kilomètre .....	0·621	0·540	1·000	0·135	0·937
German Geog. Mile ....	4·610	4·000	7·420	1·000	6·953
Russian Verst.....	0·663	0·575	1·067	0·144	1·000
Austrian Mile .....	4·714	4·089	7·586	1·022	7·112
Dutch Ure .....	3·458	3·000	5·565	0·750	5·215
Norwegian Mile .....	7·021	6·091	11·299	1·523	10·589
Swedish Mile .....	6·644	5·764	10·692	1·441	10·019
Danish Mile .....	4·682	4·062	7·536	1·016	7·078
Swiss Stunde .....	2·987	2·592	4·808	0·648	4·505

	Austrian Mile.	Dutch Ure.	Norwe- gian Mile.	Swedish Mile.	Danish Mile.	Swiss Stunde.
English Statute Mile....	0·212	0·289	0·142	0·151	0·213	0·335
English Geog. Mile ....	0·245	0·333	0·164	0·169	0·246	0·386
Kilomètre .....	0·132	0·180	0·088	0·094	0·133	0·208
German Geog. Mile ....	0·978	1·333	0·657	0·694	0·985	1·543
Russian Verst.....	0·141	0·192	0·094	0·100	0·142	0·222
Austrian Mile .....	1·000	1·363	0·672	0·710	1·006	1·578
Dutch Ure .....	0·734	1·000	0·493	0·520	0·738	1·157
Norwegian Mile .....	1·489	2·035	1·000	1·057	1·499	2·350
Swedish Mile .....	1·409	1·921	0·948	1·000	1·419	2·224
Danish Mile .....	0·994	1·354	0·667	0·705	1·080	1·567
Swiss Stunde . ....	0·634	0·864	0·425	0·449	0·638	1·000

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FOR THE YEAR 1894.

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FIXED AND MOVABLE FESTIVALS, ANNIVERSARIES, ETC.

Epiphany .....	Jan. 6	Pentecost—Whit Sunday ....	May 13
Septuagesima Sunday .....	„ 21	Trinity Sunday .....	„ 20
Quinquagesima Sunday .....	Feb. 4	Queen Victoria born (1819) ..	„ 24
Ash Wednesday .....	„ 7	Corpus Christi .....	„ 24
Quadragesima—1 Sun. in Lent ..	„ 11	Accession of Queen Vict. (1837).	June 20
St. David .....	Mar. 1	Proclamation .....	„ 21
St. Patrick .....	„ 17	St. John Baptist—Midsum. Day ..	„ 24
Palm Sunday .....	„ 18	St. Michael—Michaelmas Day.	Sept. 29
Good Friday .....	„ 23	Prince of Wales born (1841) ..	Nov. 9
Lady Day .....	„ 25	St. Andrew .....	„ 30
Easter Sunday.....	„ 25	St. Thomas .....	Dec. 21
Low Sunday .....	April 1	Christmas Day (Tuesday) ....	„ 25
Ascension Day .....	May 3		

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The Year 5655 of the Jewish Era commences on October 1st, 1894.

Ramadân (Month of Abstinence observed by the Turks) commences on  
March 8th, 1894.

The Year 1312 of the Mahommedan Era commences on July 5th, 1894.

# Calendar for 1894.

## January.

S	..	7	14	21	28
M	1	8	15	22	29
Tu	2	9	16	23	30
W	3	10	17	24	31
Th	4	11	18	25	..
F	5	12	19	26	..
S	6	13	20	27	..

## February.

S	..	4	11	18	25
M	..	5	12	19	26
Tu	..	6	13	20	27
W	..	7	14	21	28
Th	1	8	15	22	..
F	2	9	16	23	..
S	3	10	17	24	..

## March.

S	..	4	11	18	25
M	..	5	12	19	26
Tu	..	6	13	20	27
W	..	7	14	21	28
Th	1	8	15	22	29
F	2	9	16	23	30
S	3	10	17	24	31

## April.

S	1	8	15	22	29
M	2	9	16	23	30
Tu	3	10	17	24	..
W	4	11	18	25	..
Th	5	12	19	26	..
F	6	13	20	27	..
S	7	14	21	28	..

## May.

S	..	6	13	20	27
M	..	7	14	21	28
Tu	1	8	15	22	29
W	2	9	16	23	30
Th	3	10	17	24	31
F	4	11	18	25	..
S	5	12	19	26	..

## June.

S	..	3	10	17	24
M	..	4	11	18	25
Tu	..	5	12	19	26
W	..	6	13	20	27
Th	..	7	14	21	28
F	1	8	15	22	29
S	2	9	16	23	30

## July.

S	1	8	15	22	29
M	2	9	16	23	30
Tu	3	10	17	24	31
W	4	11	18	25	..
Th	5	12	19	26	..
F	6	13	20	27	..
S	7	14	21	28	..

## August.

S	..	5	12	19	26
M	..	6	13	20	27
Tu	..	7	14	21	28
W	1	8	15	22	29
Th	2	9	16	23	30
F	3	10	17	24	31
S	4	11	18	25	..

## September.

S	..	2	9	16	23	30
M	..	3	10	17	24	..
Tu	..	4	11	18	25	..
W	..	5	12	19	26	..
Th	..	6	13	20	27	..
F	..	7	14	21	28	..
S	1	8	15	22	29	..

## October.

S	..	7	14	21	28
M	1	8	15	22	29
Tu	2	9	16	23	30
W	3	10	17	24	31
Th	4	11	18	25	..
F	5	12	19	26	..
S	6	13	20	27	..

## November.

S	..	4	11	18	25
M	..	5	12	19	26
Tu	..	6	13	20	27
W	..	7	14	21	28
Th	1	8	15	22	29
F	2	9	16	23	30
S	3	10	17	24	..

## December.

S	..	2	9	16	23	30
M	..	3	10	17	24	31
Tu	..	4	11	18	25	..
W	..	5	12	19	26	..
Th	..	6	13	20	27	..
F	..	7	14	21	28	..
S	1	8	15	22	29	..

# January.

## SUNRISE AND SUNSET.

1st Rises at..	8 8	Sets at..	3 59	15th Rises at..	8 2	Sets at..	4 17
8th „ ..	8 6	„ ..	4 8	22nd „ ..	7 55	„ ..	4 30
29th Rises at 7 46.				Sets at 4 42.			

## RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises..	2 46 morn.	Sets	0 11 aft.	15th Rises	11 8 morn.	Sets	0 50 morn.
5th „ ..	9 32 „	„	5 12 „	22nd „	5 37 aft.	„	8 54 „
29th Rises 1 48 morn.				Sets 10 32 morn.			

New Moon, 7th .....	3 7 morn.	Full Moon, 21st .....	3 11 aft.
First Quarter, 15th .....	0 9 „	Last Quarter, 28th .....	4 51 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	M	1801	Union with Ireland
2	Tu	1868	DECIDED TO START SCOTTISH WHOLESALE SOCIETY
3	W	1803	Douglas Jerrold born
4	Th	1863	Working Men's College, London, opened
5	F	1827	Duke of York died
6	S		<i>Epiphany</i>
7	S		<b>First Sunday after Epiphany</b>
8	M		<i>Cambridge Lent Term begins</i>
9	Tu		Fire Insurance expires
10	W	1840	Penny Post commenced
11	Th	1866	Wreck of the "London"
12	F	1887	Lord Iddesleigh died
13	S	1873	<i>Crumpsall Works purchased</i>
14	S		<b>Second Sunday after Epiphany</b>
15	M	1877	<i>Cork Branch established</i>
16	Tu	1809	Battle of Corunna. Sir John Moore killed
17	W	1706	Benjamin Franklin born
18	Th	1890	James Hilton, director C. W. S., died
19	F	1876	Albert Music Hall, Glasgow, burnt
20	S	1779	David Garrick died
21	S		<b>Septuagesima Sunday</b>
22	M		<i>St. Vincent</i>
23	Tu	1875	Canon Kingsley died
24	W		Frederick the Great born
25	Th	1759	Robert Burns born
26	F	1878	Great Famine in China
27	S		<i>Nomination Lists: Last day for receiving</i>
28	S		<b>Sexagesima Sunday</b>
29	M	1833	First Reformed Parliament met
30	Tu	1880	S.S. "Plover" sold
31	W	1892	Rev. C. H. Spurgeon died

# February.

## SUNRISE AND SUNSET.

1st Rises at.. 7 41    Sets at .... 4 47    15th Rises at.. 7 17    Sets at .. 5 13  
 8th    „    .. 7 30    „    .... 5 0    22nd    „    .. 7 3    „    .. 5 26

## RISE, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 5 24 morn.    Sets 11 55 morn.    15th Rises 11 1 morn.    Sets 4 13 morn.  
 8th    „    8 40    „    „    8 2    „    22nd    „    8 49 aft.    „    7 58    „

New Moon, 5th ..... 9 45 aft.    Full Moon, 20th ..... 2 16 morn.  
 First Quarter, 13th ..... 10 43 morn.    Last Quarter, 27th ..... 0 28 aft.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	Th	1878	George Cruikshank died
2	F	1874	<i>Tralee Branch opened—Candlemas Day</i>
3	S	1830	Marquis of Salisbury born
4	S		<b>Quinquagesima Sunday</b>
5	M	1881	Thomas Carlyle died
6	Tu		<i>Shrove Tuesday</i>
7	W	1812	Charles Dickens born
8	Th		Half Quarter Day
9	F	1880	Wreck of the “Eurydice”
10	S	1840	Queen Victoria married
11	S		<b>First Sunday in Lent</b>
12	M	1814	Custom House (London) burnt
13	Tu	1637	Turner, historian, died—Trial of Warren Hastings
14	W	1876	<i>Opening of Newcastle Building, Waterloo Street</i>
15	Th		<i>Ash Wednesday</i>
16	F	1887	Wreck of the “George Cromwell”
17	S	1861	Duchess of Albany born
18	S	1889	<i>Enderby Extension opened</i>
19	M	1860	Sir W. Napier died
20	Tu	1855	Joseph Hume died
21	W	1879	“Pioneer” launched— <i>New York Branch estab., 1876</i>
22	Th	1875	Sir Charles Lyell died
23	F	1732	George Washington born
24	S	1806	James Barry died
25	S	1878	KILMARNOCK BRANCH, SCOTTISH C.W.S., OPENED
26	M	1871	Treaty of Versailles
27	Tu		<i>Voting Lists : Last day for receiving</i>
28	W		Hare Hunting ends

# March.

## SUNRISE AND SUNSET.

1st Rises at .. 6 48	Sets at .... 5 38	15th Rises at.... 6 17	Sets at.. 6 2
8th „ .. 6 33	„ .... 5 50	22nd „ .... 6 1	„ .. 6 14
29th Rises at 5 5.		Sets at 6 26.	

## RIISING, SETTING, AND CHANGES OF THE MOON.

1st Rises..4 15 morn.	Sets 10 35 morn.	15th Rises 9 52 morn.	Sets 3 17 morn
8th „ 6 59 „	„ 7 5 „	22nd „ 7 43 aft.	„ 6 16 „
29th Rises 3 16 aft.		Sets 6 12 morn.	
New Moon, 7th .....	2 18 aft.	Full Moon, 21st.....	2 11 aft.
First Quarter, 14th.....	6 28 „	Last Quarter, 29th .....	8 28 morn.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	Th	1869	1, Balloon Street, Manchester, Warehouse opened
2	F	1810	Pope Leo born [Quarterly Meetings
3	S		Newcastle and London Branch and Divisional
4	S		<b>Fourth Sunday in Lent</b>
5	M	1843	Thames Tunnel opened
6	Tu	1886	Richard Whittle, director C. W. S., died
7	W	1883	Green, historian, died
8	Th	1844	Bernadotte died
9	F	1874	London Branch established
10	S		General Quarterly Meeting
11	S		<b>Fifth Sunday in Lent</b>
12	M		St. Gregory
13	Tu	1881	The Czar's Accession [COMMENCED, 1887
14	W	1864	Wholesale Society commenced business—BATLEY MILL
15	Th	1860	HECKMONDWIKE CO-OPERATIVE SOCIETY COMMENCED
16	F	1856	Prince Louis Napoleon born
17	S		St. Patrick
18	S		<b>Palm Sunday</b>
19	M	1876	General Chesney died
20	Tu	1845	Sir Thomas Potter, Knight, died
21	W	1871	Princess Louise married
22	Th	1797	Emperor William I. of Germany died
23	F	1849	Battle of Novara
24	S	1879	Rouen Branch opened—C.W.S. Quarter Day
25	S		<b>Easter Sunday</b>
26	M		Bank Holiday
27	Tu		Oxford and Cambridge Lent Term ends
28	W	1884	Duke of Albany died
29	Th	1879	Trial trip s.s. "Pioneer"—7TH CONGRESS, LONDON,
30	F	1707	Marshal Vauban died [1875. Prof. T. ROGERS, Pres.
31	S	1883	S. C. W. S. Stocktaking

# April.

## SUNRISE AND SUNSET.

1st Rises at .. 5 38	Sets at .. 6 31	15th Rises at.. 5 7	Sets at .. 6 54
8th .. 5 22	" .. 6 43	22nd .. 4 52	" .. 7 6
29th Rises at 4 38. Sets at 7 17.			

## RIISING, SETTING, AND CHANGES OF THE MOON.

1st Rises 4 28 morn.	Sets 0 52 aft.	15th Rises 1 16 aft.	Sets 3 44 morn.
8th .. 5 59 "	" 10 20 "	22nd .. 10 37 "	" 5 19 "
29th Rises 2 49 morn. Sets 11 50 morn.			

New Moon, 6th .....	4 0 morn.	Full Moon, 26th .....	3 2 morn.
First Quarter, 13th.....	0 33 "	Last Quarter, 28th .....	3 20 "

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	S	1872	4TH CONGRESS, BOLTON. T. HUGHES, M.P., President
2	M	1877	9TH CON., LEICESTER. Hon.A.HERBERT, Pres.— <i>L'pool</i>
3	Tu		[ <i>Depôt com.</i> , 1875—R. Allen, direc. C.W.S., d., 1877
4	W	1774	Oliver Goldsmith died
5	Th	1811	Robert Raikes died
6	F	1874	6TH CONGRESS, HALIFAX. T. BRASSEY, M.P., Pres.
7	S	1884	<i>Hamburg Branch commenced</i>
8	S		<b>Second Sunday after Easter</b> [Insurance expires
9	M	1877	LEITH BRANCH, SCOTTISH WHOLESALE, OPENED—Fire
10	Tu	1871	3RD CONGRESS, BIRMINGHAM. A.HERBERT, M.P., Pres.
11	W	1861	American Civil War commenced
12	Th	1873	5TH CONGRESS, NEWCASTLE. J. COWEN, jun., Pres.
13	F	1872	Samuel Bamford died
14	S	1873	<i>Armagh Branch opened</i> —11TH CONGRESS, GLO'STER.
15	S		[Prof. J. STUART, Pres., 1879
16	M	1746	Battle of Culloden
17	Tu	1876	8TH CONGRESS, GLASGOW. Prof. HODGSON, Pres.
18	W	1891	<i>Dunston Corn Mill opened</i>
19	Th	1881	Lord Beaconsfield died
20	F	1868	SCOTTISH CO-OPERATIVE WHOLESALE S. ENROLLED
21	S	1873	Justus Liebig, chemist, died
22	S	1878	{10TH CONGRESS, MANCHESTER. Marq. of RIFON, Presi-
23	M		dent— <i>Nottingham Saleroom opened, 1886</i>
24	Tu	1866	<i>St. George</i>
25	W	1844	<i>Tipperary Branch opened</i>
26	Th	1819	ROCHDALE PIONEERS' SOCIETY COMMENCED
27	F	1882	Duke of Cambridge born
28	S		Prince Leopold married
29	S		<i>Nomination Lists : Last day for receiving</i>
30	M	1834	<b>Rogation Sunday</b> Sir John Lubbock born

# May.

## SUNRISE AND SUNSET.

1st Rises at .. 4 34	Sets at .. 7 21	15th Rises at.. 4 11	Sets at .. 7 43
8th „ .. 4 22	„ .. 7 32	22nd „ .. 4 1	„ .. 7 53
29th Rises at 3 53. Sets at 8 1.			

## RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises 3 13 morn.	Sets 2 21 aft.	15th Rises 3 8 aft.	Sets 2 32 morn.
8th „ 5 37 „	„ „ morn.	22nd „ 11 28 „	„ 5 1 „
29th Rises 1 31 morn. Sets 1 14 aft.			

New Moon, 5th ..... 2 41 aft.	Full Moon, 19th ..... 4 43 aft.
First Quarter, 12th .... 6 21 morn.	Last Quarter, 27th ..... 8 4 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	Tu	1892	John Thirlaway, director C. W. S., died
2	W	1868	Thames Embankment opened
3	Th	1845	Tom Hood died
4	F	1876	Strike at Constantinople
5	S	1892	<i>Birmingham Saleroom opened</i>
6	S		<b>Sunday after Ascension.</b>
7	M	1812	Robert Browning born
8	Tu	1893	<i>Broughton Cabinet Factory opened</i>
9	W	1873	John Stuart Mill died—Half Quarter Day
10	Th	1816	Dr. Royle, Bishop of Liverpool, born
11	F	1812	Spencer Percival shot
12	S	1869	Co-op. Printing Society, Manchester, com. business
13	S		<b>Whit Sunday</b>
14	M	1883	15TH CON., EDINBURGH. W. E. BAXTER, M.P., Pres.
15	Tu	1847	Daniel O'Connell died
16	W	1871	Vendome Column destroyed
17	Th	1880	12TH CON., NEWCASTLE. Bishop of DURHAM, Pres.
18	F	1891	23RD CON., LINCOLN. A. H. D. ACLAND, M.P., Pres.—
19	S		[Samuel Lever, director C. W. S., died, 1888]
20	S		<b>Trinity Sunday</b>
21	M	1888	20TH CONGRESS, DEWSBURY. E. V. NEALE, Pres.
22	Tu	1893	25TH CON., BRISTOL. Councillor G. HAWKINS, Pres.
23	W	1812	Guilia Grisi born
24	Th	1876	<i>Purchase of s.s. "Plover"</i> [son, direc. C. W. S., died, 1890]
25	F	1885	17TH CONG., OLDHAM. LLOYD JONES, Pres.—J. Atkin-
26	S	1890	22ND CONGRESS, GLASGOW. Earl of ROSEBURY, Pres.
27	S		<b>First Sunday after Trinity</b>
28	M		[OXFORD. Ld. REAY, Pres., 1882]
29	Tu		<i>Voting Lists: Last day for receiving—14TH CONGRESS,</i>
30	W	1887	19TH CONGRESS, CARLISLE. G. J. HOLYOAKE, Pres.
31	Th	1884	<i>Leicester Works Second Extension opened</i>



# June.

## SUNRISE AND SUNSET.

1st Rises at .. 3 51	Sets at .. 8 5	15th Rises at.. 3 44	Sets at .. 8 16
8th „ .. 3 40	„ .. 8 11	22nd „ .. 3 45	„ .. 8 18
29th Rises at 3 47. Sets at 8 18.			

## RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 2 6 morn.	Sets 5 20 aft.	15th Rises 6 8 aft..	Sets 1 30 morn.
8th „ 8 45 „	„ „ morn.	22nd „ 11 14 aft.	„ 7 19 „
29th Rises 0 25 morn. Sets 4 19 aft.			

New Moon, 3rd .....	10 56 aft.	Full Moon, 18th .....	7 6 morn.
First Quarter, 10th .....	1 14 „	Last Quarter, 26th.....	10 3 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	F	1868	<i>Kilmallock Branch opened</i>
2	S	1884	16TH CON., DERBY. SED. TAYLOR, Pres.— <i>Newcastle</i>
3	S		[ <i>and Lond. Branch and Divisional Quar. Meet.</i> ]
4	M	1859	Battle of Magenta
5	Tu	1723	Adam Smith born
6	W	1892	24TH CON., ROCHDALE. J. T. W. MITCHELL, Pres.
7	Th	1832	First Reform Bill passed
8	F	1873	Alexandra Palace burnt
9	S		<i>General Quarterly Meeting</i>
10	S	1889	21ST CONGRESS, IPSWICH. Prof. A. MARSHALL, Pres.
11	M		<i>St. Barnabas</i>
12	Tu	1876	Midland Federal Corn Mill, Laying Foundation Stones
13	W	1889	Armagh Railway Disaster
14	Th	1886	18TH CONGRESS, PLYMOUTH. Lord MORLEY, Pres.
15	F	1875	<i>Manchester Drapery, Warehouse, Dantzic St., opened</i>
16	S	1888	Emp. Fred. Wm. of Germany died. Reigned 14 wks.—
17	S		<b>Fourth Sunday after Trinity</b>
18	M	1876	W. PARE, FIRST SEC. OF CONGRESS BOARD, died
19	Tu	1623	Pascal born
20	W	1837	Queen's Ascension
21	Th	1884	JOS. SMITH, ASSISTANT SEC. CONGRESS BOARD, died
22	F	1815	Napoleon abdicated
23	S		<i>Co-operative Wholesale Society Quarter Day</i>
24	S		<b>Fifth Sunday after Trinity</b>
25	M	1884	<i>Newcastle Drapery Warehouse opened</i>
26	Tu	1830	George IV. died
27	W	1857	Cawnpore taken
28	Th	1838	Coronation Day
29	F	1879	Victoria University chartered
30	S	1879	<i>Goole Forwarding Depot opened—S. C. W. S. Stock-</i> [ <i>taking</i> ]

# July.

## SUNRISE AND SUNSET.

1st Rises at.. 3 51	Sets at.. 8 5	15th Rises at .. 4 2	Sets at .. 8 9
8th „ .. 3 46	„ .. 8 11	22nd „ .. 4 10	„ .. 8 1
. 29th Rises at 4 20. Sets at 7 51.			

## RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 1 16 morn.	Sets 7 16 aft.	15th Rises 7 21 aft.	Sets 0 58 morn.
8th „ 10 42 morn.	„ 10 58 „	22nd „ 9 55 „	„ 8 48 „
29th Rises morn. Sets 6 8 aft.			

New Moon, 3rd..... 10 56 aft.	Full Moon, 18th..... 7 6 morn.
First Quarter, 10th..... 1 14 „	Last Quarter, 26th..... 10 3 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	S	1872	<i>Manchester Boot and Shoe Department commenced</i>
2	M	1867	EQUITABLE CO-OP. BUILDING SOCIETY ESTABLISHED
3	Tu	1881	DUNDEE BRANCH OF SCOTTISH C.W.S. OPENED
4	W	1776	Independence Day, U.S.A.
5	Th	1849	Lord Gifford born
6	F		Length of day, 16h. 24m.
7	S	1888	<i>Launch of s.s. "Equity"</i>
8	S		<b>Seventh Sunday after Trinity</b>
9	M		<i>Fire Insurance due</i>
10	Tu	1509	John Calvin born
11	W	1450	Jack Cade killed
12	Th	1869	<i>Limerick Branch opened</i>
13	F	1872	Ballot Act in operation
14	S	1873	<i>Waterford Branch opened</i>
15	S		<b>Eighth Sunday after Trinity</b>
16	M	1876	<i>Manchester Furnishing Department opened</i>
17	Tu	1845	Earl Grey died
18	W	1881	Dean Stanley died
19	Th	1870	Lucien P. Paradol died
20	F	1873	Lord Westbury died
21	S	1887	<i>Manchester New Furnishing Warehouse opened—Pur-</i>
22	S		<i>chase of s.s. "Marianne Briggs," 1883</i>
23	M	1833	Duke of Devonshire born
24	Tu	1851	Window Tax repealed
25	W	1883	Captain Webb drowned
26	Th	1869	Irish Church Bill passed
27	F	1880	<i>Purchase of s.s. "Cambrian"</i>
28	S		<i>Nomination Lists: Last day for receiving</i>
29	S		<b>Tenth Sunday after Trinity</b>
30	M	1868	Thames Embankment opened
31	Tu	1556	Ignatius de Loyola died

# August.

## SUNRISE AND SUNSET.

1st Rises at.. 4 25	Sets at.. 7 46	15th Rises at ..4 46	Sets at .. 7 21
8th " .. 4 35	" .. 7 34	22nd " ..4 58	" .. 7 7
29th Rises at 5 9.		Sets at 6 52.	

## RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises 3 39 morn.	Sets 8 18 aft.	15th Rises 7 29 aft.	Sets 2 56 morn.
8th " 9 57 "	" 9 57 "	22nd " 8 52 "	" 11 42 "
29th Rises 2 39 morn.		Sets 6 40 aft.	

New Moon, 1st .....	0 24 aft.	Full Moon, 16th .....	1 17 aft.
First Quarter, 8th .....	10 5 morn.	Last Quarter, 24th.....	5 40 morn.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	W	1798	Battle of the Nile
2	Th	1870	Battle of Sedan
3	F	1732	Bank of England started
4	S	1873	<i>Cheshire Branch opened &amp; Leicester Works purchased</i>
5	S	1876	<i>Leicester Works First Extension opened</i>
6	M		Bank and General Holiday
7	Tu	1821	Queen Caroline died
8	W	1827	George Canning died
9	Th	1631	Dryden born
10	F	1831	G. J. Goschen born
11	S	1863	<i>Co-operative Wholesale Society enrolled</i>
12	S		<b>Twelfth Sunday after Trinity</b>
13	M		<i>Old Lammas Day</i>
14	Tu	1880	<i>Heckmondwike Boot and Shoe Works commenced</i>
15	W	1771	Sir Walter Scott born
16	Th	1873	<i>C. W. S. Insurance Fund established</i>
17	F	1786	Frederick the Great died
18	S	1870	Battle of Gravelotte
19	S		<b>Thirteenth Sunday after Trinity</b>
20	M	1868	Abergele Accident
21	Tu	1889	W. P. Hemm, director C. W. S., died
22	W	1800	Rev. Dr. Pusey born
23	Th	1862	CORNER STONE, BLACKLEY STORE, LAID
24	F	1572	Massacre of St. Bartholomew
25	S	1886	<i>Longton Crockery Depôt opened</i>
26	S		<b>Fourteenth Sunday after Trinity</b>
27	M	1816	Algiers bombarded
28	Tu		<i>Voting Lists : Last day for receiving</i>
29	W	1887	<i>Heckmondwike Currying Department commenced</i>
30	Th	1877	Battle of Plevna
31	F	1688	John Bunyan died

# September.

## SUNRISE AND SUNSET.

1st Rises at.. 5 13	Sets at .. 6 45	15th Rises at.. 5 36	Sets at .. 6 13
8th „ .. 5 25	„ .. 6 30	22nd „ .. 5 47	„ .. 5 57
29th Rises at 5 58. Sets at 5 41.			

## RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises 7 11 morn.	Sets 7 21 aft	15th Rises 6 23 aft.	Sets 5 39 morn.
8th „ 4 5 aft.	„ 10 25 „	22nd „ 9 23 „	„ 2 52 aft.
29th Rises 6 8 morn Sets 5 39 aft.			

First Quarter, 7th..... 1 3 morn.	Last Quarter, 22nd ..... 0 32 aft.
Full Moon, 15th ..... 4 21 „	New Moon, 29th ..... 5 44 morn.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	S		Newcastle and London Branch and Divisional
2	S	1871	“CO-OP. NEWS” FIRST ISSUED [Quarterly Meetings
3	M	1878	SS. “Princess Alice” disaster
4	Tu	1870	French Republic declared
5	W	1800	Malta taken
6	Th	1870	H.M.S. “Captain” foundered
7	F	1533	Queen Elizabeth born [COM. BUSINESS, 1868
8	S		General Quarterly Meeting—SCOTTISH WHOLESALE
9	S	1891	William Green, director C. W. S., died
10	M	1771	Mungo Park born
11	Tu	1882	Capture of Tel-el-Kebir
12	W	1819	Blücher died
13	Th	1884	LIFEBOAT “CO-OPERATOR No. 1” presented to R.N.L.I.
14	F	1852	Duke of Wellington died
15	S	1873	Leicester Works commenced
16	S		<b>Seventeenth Sunday after Trinity</b>
17	M	1863	PAISLEY MANUFACTURING SOCIETY STARTED
18	Tu	1854	Battle of Alma
19	W	1881	President Garfield died
20	Th	1884	21st Anniversary of C.W.S., Commemoration of
21	F	1832	Sir Walter Scott died
22	S		Co-operative Wholesale Society Quarter Day
23	S		<b>Eighteenth Sunday after Trinity</b>
24	M	1889	Eliza Cook (poetess) died
25	Tu	1870	Siege of Paris commenced
26	W	1857	Relief of Lucknow [Premises, Hooper Square
27	Th	1880	London Drapery Department commenced in New
28	F	1870	Strasbourg surrendered
29	S	1884	Bristol Depot commenced - S. C. W. S. Stocktaking
30	S		<b>Nineteenth Sunday after Trinity</b>

# October.

## SUNRISE AND SUNSET.

1st Rises at .. 6 2	Sets at .. 5 37	15th Rises at.. 6 25	Sets at .. 5 6
8th „ .. 6 13	„ .. 5 21	22nd „ .. 6 37	„ .. 4 51
29th Rises at 6 50. Sets at 4 37.			

## RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 8 56 morn.	Sets 6 6 aft.	15th Rises 5 6aft.	Sets 7 12 morn.
8th „ 3 41 „	„ 11 38 „	22nd „ 11 24 „	„ 2 48 aft.
29th Rises 7 53 morn. Sets 4 27 aft.			

First Quarter, 6th..... 7 1 aft.	Last Quarter, 21st..... 6 56 aft.
Full Moon, 14th ..... 6 41 „	New Moon, 28th..... 5 57 „

Day of Month	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	M		<i>Cambridge Michaelmas Term begins</i>
2	Tu	1786	Admiral Keppel died
3	W	1883	Burnham Beeches made public
4	Th	1819	F. Crispi born
5	F	1874	<i>Durham Scap Works commenced</i>
6	S	1884	<i>Launch of s.s. "Progress"</i>
7	S		<b>Twentieth Sunday after Trinity</b>
8	M	1871	Great Fire at Chicago
9	Tu	1759	Eddystone Lighthouse finished
10	W	1885	"Hell Gate" dynamited
11	Th	1492	America discovered by Columbus
12	F	1886	<i>Launch of s.s. "Federation"</i>
13	S	1822	Canova died
14	S	1872	<i>C.W.S. Bank Department commenced</i>
15	M		<i>Fire Insurance expires</i>
16	Tu	1834	Houses of Parliament burnt
17	W	1874	First Hospital Saturday
18	Th	1826	Last English Lottery
19	F	1745	Dean Swift died
20	S	1823	Thomas Hughes born
21	S		<b>Twenty-second Sunday after Trinity</b>
22	M	1890	<i>Northampton Saleroom opened—Cardiff Saleroom</i>
23	Tu	1869	Earl of Derby died [opened, 1891]
24	W	1852	D. Webster died
25	Th	1415	Battle of Agincourt
26	F	1859	"Royal Charter" lost
27	S		<i>Nomination Lists: Last day for receiving</i>
28	S		<b>Twenty-third Sunday after Trinity</b>
29	M		Hare Hunting begins
30	Tu	1841.	Great Fire at Tower of London
31	W	1882	<i>Leeds Saleroom opened</i>

# November.

## SUNRISE AND SUNSET.

1st Rises at .. 6 55	Sets at .. 4 32	15th Rises at.. 7 20	Sets at .. 4 9
8th „ .. 7 8	„ .. 4 20	22nd „ .. 7 32	„ .. 4 1
29th Rises at 7 43. Sets at 3 54.			

## RIISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 11 42 morn.	Sets 6 4 aft.	15th Rises 5 9 aft.	Sets 10 28 morn.
8th „ 2 40 aft.	„ 1 2 morn.	22nd „ 1 29 morn.	„ 1 53 aft.
29th Rises 10 26 morn. Sets 4 49 aft.			

First Quarter, 5th ..... 3 16 aft.	Last Quarter, 20th ..... 2 8 morn.
Full Moon, 13th ..... 7 49 morn.	New Moon, 27th ..... 8 54 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	Th	1882	<i>Tea and Coffee Department, London, commenced</i>
2	F	1887	<i>London Branch New Warehouse opened—Manufac. of</i>
3	S	1800	<i>Battle of Hohenlinden [Cocoa and Chocolate com.</i>
4	S	1891	<i>Wheat Sheaf Works, Leicester, opened</i>
5	M	1861	HALIFAX INDUSTRIAL SOCIETY INAUGURATED
6	Tu	1860	Admiral Sir Charles Napier died
7	W	1801	R. D. Owen, reformer, born
8	Th	1886	<i>Trial trip s.s. "Federation"</i>
9	F	1841	Prince of Wales born
10	S	1483	Martin Luther born [ <i>Depôt new premises opened, 1889</i> ]
11	S	1887	Manchester Ship Canal, first sod cut— <i>Longton</i>
12	M	1849	Brunel (Thames Tunnel engineer) died
13	Tu	1851	Telegraph between England and France completed
14	W	1844	Abercrombie, metaphysician, died
15	Th	1871	Stanley discovered Livingstone
16	F	1891	<i>Aarhus Branch opened</i>
17	S	1858	Robert Owen died
18	S		<b>Twenty-sixth Sunday after Trinity</b>
19	M	1758	British Museum established
20	Tu	1869	Suez Canal opened
21	W	1835	The "Ettrick Shepherd" died
22	Th	1804	Rochdale Canal opened
23	F	1641	Irish Rebellion
24	S	1879	Sergeant Cox died
25	S		<b>Twenty-seventh Sunday after Trinity</b>
26	M	1871	<i>Opening of Newcastle-on-Tyne Branch</i>
27	Tu		<i>Voting Lists : Last day for receiving</i>
28	W	1814	<i>Times printed by steam</i>
29	Th	1889	Martin F. Tupper died
30	F		<i>St. Andrew's Day</i>

# December.

## SUNRISE AND SUNSET.

1st Rises at .. 7 46	Sets at .. 3 53	15th Rises at.. 8 2	Sets at .. 3 49
8th .. 7 55	.. 3 49	22nd .. 8 7	.. 3 51
29th Rises at 8 6.		Sets at 3 49.	

## RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 11 43 morn.	Sets 7 5 aft.	15th Rises 6 50 aft.	Sets 10 53 morn.
8th .. 1 17 aft.	.. 2 23 morn.	22nd .. 3 20 morn.	.. 0 39 aft.
29th Rises 10 9 morn.		Sets 6 4 aft.	

First Quarter, 5th..... 0 15 aft.	Last Quarter, 19th..... 11 16 morn.
Full Moon, 12th..... 7 46 ..	New Moon, 27th..... 2 20 ..

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	S		<i>Newcastle and London Branch and Divisional</i>
2	S		<b>Advent Sunday</b> [Quarterly Meetings]
3	M	1821	Lord Coleridge born
4	Tu	1795	Thomas Carlyle born
5	W	1870	Rome made Italian Capital
6	Th	1882	Trollope, novelist, died [from Eastham to M'chester
7	F	1893	Directors of Ship Canal sailed on s.s. "Snowdrop"
8	S		<i>General Quarterly Meeting</i>
9	S		<b>Second Sunday in Advent</b>
10	M	1768	Royal Academy founded
11	Tu	1869	Edward Hooson, director C.W.S., died
12	W	1757	Cibber died
13	Th	1884	Attempt to blow up London Bridge
14	F	1861	Prince Consort died
15	S	1891	Samuel Taylor, director C.W.S., died
16	S		<b>Third Sunday in Advent</b>
17	M		<i>Oxford Michaelmas Term ends</i>
18	Tu	1862	Slavery abolished in the United States
19	W	1805	Lord Beaconsfield born
20	Th	1848	Napoleon elected President
21	F	1888	J. J. B. Beach, director C.W.S., died
22	S		<i>Co-operative Wholesale Society Quarter Day</i>
23	S		<b>Fourth Sunday in Advent</b>
24	M	1863	Thackeray died
25	Tu		<b>Christmas Day</b> —OLDHAM INDUS. SOCY. COM., 1850
26	W		Boxing Day—Bank Holiday
27	Th	1834	Charles Lamb died
28	F	1802	Earl Grey born
29	S	1809	Rt. Hon. W. E. Gladstone b.—S. C. W. S. Stocktaking
30	S	1885	C.W.S. Fire, London Tea Department
31	M	1882	Gambetta, statesman, died

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