[References under each heading are arranged generally in numerical order, but when the chief discussion of a subject is concentrated in a single place, that place is mentioned first.]

Abbé, and the Zeiss works 353-4, 360 n. Accounting, in early times 310; ideal system of 365—6, in a small business 366 n (See Cost-accounts)

Acworth, on nationalization of rail-

ways 494; 834 n.

Adam Smith, Appendix D, his criticism of mercantilism 44-5, 719; change in point of view since he wrote 45—6; on automatic cooperation 600; his influence on progress of economics 673-4, on relation of towns to country 686; on State intervention 719, 743-8; on J. S. Companies 727-29; on navigation laws 730; on colonies 732 n , 734; his large imperalism 734-5; his relation to the Physiocrats 741, 743, 745, Schmoller on 745; his strong national spirit 746 -7; his exceptions to "natural law of liberty" 747; on bounties 746-7; misunderstandings of his position 747-8 n.; on exportation of corn 749; in relation to his successors 758-60, 765; his protest against selfish practices 781

Addıs, Sir C., on British banking

619 n.

Advertisement, constructive and combative uses of 304—7; in the clothing trade 304 n.; of typewriters 305-6 n.; in U.S. 307 n.; and newspapers 307 n.; and psychology 307 n

Aeroplane industry, standardization

ın 227--8

Agent-in-charge 615—16

Agriculture, its financial structure 51-2; English system of 63-4; Protection to, 82-3,749-54; its empirical character till recently 199-200; incidence of taxes on 824-7 (See Land, Diminishing Return)

Air pressure, subtle applications of 212 n

"Alfred" (Samuel Kidd) on economists and Factory legislation 763

Aluminium, and electrical developments 803

American I vii, III, vii, viii, Appen-

dices G, N, leadership in standardızation 11, 140-1, 146-52, 232-3, 304 n; spirit of youth 141; early industrial conditions 143-6, 773-6, 778-9, homogeneity of demand 146 -50; railways compared with British 151-3, 446-7, 452; localized industries 151-2, 287-8 n.; scientific management 224, 370, 374, 382, 387-8, 390 n.; lavish use of advertisement 295, 304 n., 307 n.; massive retailing 296, 299 n., 302—4, high retail prices 303-4; J. S. Companies 318, 327; employees 327; company promoters 332; business men 156, 358—9, 361; railway science 445—6; protective tarifs 760—2, railway discrimination 836-8; method of way statistics 838-9; statistics of industrial establishments 846-9 (See United States)

Antı-trust Act 513, 517—18; and interlocking directorates 542 n.

Appendices, function of 11-12

Architecture, and masons' strike 409 Aristotle, his doctrine as to trade 253 Armour, J. Ogden, his defence of the beef monopoly 417 n., 489 n.

Art, in English industry 63, and in French 110—12, 113, 116, 118, 120, its relation to custom 197-8; and retail prices 282; in Tyrol 808 n.; in Florence 821 n.

Ashley, P. 635 n , 769 n.

Ashley, Sir W. 686 n., 707 n., 724 n.; on England's early woollen trade 718 n., 769 n.

Association, in laboratory work 100-1, 180; for trade information 102 (See Constructive cooperation)

Atkınson, H 385 n. Auerbach 354 n.

Australian, foreign trade 24 n.; industrial character 160-1; control of

monopolies 523 n.

Automatic organization, in British wool trade 49-51, 579, 716, in the cotton industry 599—603, in Holland 694 Aves, E, on London trades 816 n.

Babbage, on utilization of by-products 239 n.; anticipated ideas of scientific management 224—5, 376, 378; on methods of inquiry 376 n; his "Differential Machine" 377 n.; his work and Lardner's compared 449 n. Bacon, on dominion of the sea 731 Bagehot 92 n.; on private banks 346; on definition 680 n. Banking systems, British 53, 103, 313 n., 337-40, 346-9; 618-19; German and American 341-8, 558, 566-8; Dutch 695—6; expansion of unit in 340, 618—19 Barker, J. Ellis 130 n. "Basing-points" 837 Bechhofer and Reckitt, on National Guilds 855 n., 659 n. Bedstead Makers' Federation 606 n. Beef, monopoly 417 n.; joint products 806 Belgium 107 Benn, on Science and Industry 609 n., 633 n. Biology, and structure of business 163~ Black Death 705-6 Blanket rates 837 Blondell 109 n.; on French character 115 Bonar, Dr 396 n. Booksellers, profits of 302 n. Boot and shoe industries, standardization in 232-4; tying contracts in 232-3n., 536, 626 n.; in Tyrol 714 n. Booth, Charles, his estimate of London poverty 78; on London trades 816 n. Bounties, and German protective duties on coal 564; Adam Smith on 746—7; on exportation of grain 749-50 Bowring 768 n., 769 n. Bradford Dyers' Association 605 Branch-shop Companies 298; compared with shipping companies 434 "Branded" goods, their influence on methods of marketing 300-2 Brassey, Thomas, on diet of navvics in England and France 115 n. Bray, on changes of fashion 809 n. Brentano, on Cartels 548 n., 572, 586 n. Britannia Languens, 1680, contrast between English and French work 113 n., 711 n., 722 n., 731 n. British III, IV-VI, XI-XII; and German efficiency compared 95 n., 101 n., 103, 556-7; education reforms 95-102, 129, 132, 357; fruits of invention reaped by others 101 n.; banks 103, 338—40, 347—9, 618—19; Confederation of Nations 103; "Trade Corporation" 348-9, 505 n.; railway science 449; characteristics in

railway traffic 452—4, 464, 490—2, Canals 451, 497-506; Trusts 510, 595—8; Trust legislation 542—3 n.; individuality 580, 582—3, 588 -9; coal vend 509, 585--6; steel mdustry, 587, 621-2; Pottery Manufacturers' Association 604, Dye-stuffs Corporation 608; Manufacturing Corporation 615-16 n.; dependence on mechanical appliances 650 (See English) Brown, H. 693 n. Brown, Prof. H. G. 836 n. Browne, Sir Benjamin, on standardization and the skilled artisan 209 Bucher 55, 378 n; analysis of "domestic industry" 718 n. Bureau of Corporations (matured as the Federal Commission) 517, 576; in relation to the U.S. Steel Corporation 530, the Lumber industry 531, and the exploitation of water power 532; its report on Petroleum and other industries 533 n., 535 n., 536 n. Bureaucratic control, its danger in a democratic country 602 n , 851, 666 **-7,** 669**--**71 Business, elementary forms of 165 n.; changes in 167—70, 179, 215—18; ambiguity of terms "large business" 173—4, and "head" of 311; qualities required for 173, 354-6, 358, 583-4, 646; growing importance of exact balance sheets in 310; esprit de corps in 326-7; philanthropy in 353-4; University training for 357, 361; Scientific Management applied to 381—94; and risk taking 645—6 Business Finance, enlargement of its basis 346-9, 618-19 Business men, and the study of Economics 11, 679, 821-3; change in their competitive character 179, and in their relations to employees 350-1 Business unit, expansion of 214—21, 340, 509, 846—9, some technical influences on its size 235—42; how affected by standardization specialization 244-7, 508-9 Butter, standardization of 812 Buyer, in relation to seller 271-4, 402, 419-20, 620-1 By-products, and the expansion of the business unit 238-42 Byron, on monopolistic power of "Con-

ferences" 438 n.

Cab fares, effect of a rise in 300 n. Cable Makers' Association 607 Calico Printers' Association 597 n., 606

Calwer, on Berlin High-finance 343 a.

Campbell, C. W. 682 n.

Canada, relation of her leadership to that of U.S. 160; and control of monopolies 522-3 n., 542-3 n.

Canals III, vr; early history of 40,831; German systems of 125, 499, 500, present weakness of British 498combined with motor traffic 501-2; aided by electricity 501-3; in relation to railways 500-1, 504-6, and the State 505-6; in France 499; and nature of agricultural land 504 n., and decentralization of populations 502, 505

Prof., on nationalization Cannan, 856 n.

Capital, origin and early forms of 36, 47, 51, 67, 691, 709—13, chiefly saved by middle and upper classes 649

Capitalization and stock watering 331-7, 842-4; of U.S. Steel Corporation 530

Carey, on Protection 761, 782 n., 783 n., 784 n.

Carnegie, on the rise of the office boy in business 156 n., 359, on attractive power of raw maternal 169 n; and standardization in bridge building 222; on University training for business 361; and the U.S. Steel Corporation 364 n., 529, 605

Cartels III, IX—X; a form of "Regulative Association" 216; monopolative Association 216; monopol listic element in 280, 399-402, 420-1, 559 n.; their relation to "pools" 488; growth of in Germany 341-3, 568-9; and Trusts compared 510-11; and retail trade 547-8; and standardization 548-50; statistics of 549 n.; allies of strong rather than weak 558-9; aided by banking system 341-3 n., 558, 566-8, and Protection 563-5, 851-3; their claim to stabilize industry 629-35; their relation to labour and to the State 570-6

Carter 577 n.; on use of tying clause by Bradford Dyers' Association 586 n. Carver, Prof, on English and German working man in U.S. 387 n.

Cement, adapted for local firms 236 586; Trust in relation to the Steel Union 563 n; cartel 571 n.
"Chain-stores" 298

Chalmers 38 n.

Chapman, S. J., on small manufacturers 231 n.; on working class factories 320 n., 601 n., 645 n.; and Knoop 801 n.

Character, effect of migration on 34; and cooperation 289, 295; and English climate 700—1

Checks, in relation to size of business 324-5, 366-7

Chemistry, its industrial significance (See Science in industry, and Colour industries)

Cherington 295 n.; on "regular" retailers 298 n.; on "chain-companies"

299 n , 306 n., 307 n. Child, Sir Josiah 731 n., 732 n.

Children, employment of under domestic and early factory systems 73, 75-7; education of 819-20

Chisholm, on trade in 1590, 683 n. Chordals' Letters 283 n.

Clapham, Dr, on mechanical inven-tions 62 n., 232 n.; on Navigation Acts 71 n.; on Norfolk wool industry 707 n.

Clark, Prof. J. B., on trusts 521 Clay, and the "compromise tariff" 778; on Protection 780 Clayton Anti-trust Act 517-8, 542

Cleveland-Steven 832 n. Cliffe, Leslie 755 n.

Coach services in relation to monopoly and competition 426-9

Coal, marketing of 267, 451 n , 585—6, 789, 814; and canal transport 503; "combination under proper supervision" of anthracite 531-2 n.; Cartel 552-6, 548 n.; and Britain's future 628 n.

Coal-tar industries, Germany's advance in 95, 240

"Coal-Vend," anticipated leading ideas of Coke and Coal syndicates 509, 585--6

Coats, trade mark on cotton 403-4; growth of its monopoly 595-7, 626 Cohn. on Coal-Vend 585 n.

Colbert and French industry 113; anticipated standardization 740—1

Cole, G. H. D., and the "work fund" 640 n.; on National Guilds 658-60

"Collective" piece work 642, 659 Colonies, changed problems of in twentieth century 104-5, 735, 653; Adam Smith on 142; age rapidly when isolated 143, and the Mercantile system 731 - 6

Colour industries, German 232, 240-2 Colson 109 n., 400 n., 449 n., 836 n Combinations in relation to partial monopoly 196; in retail trade 280, 300 n.; "Defensive" 401, of buyers and sellers 402; in the shipping trade 433—9; and constructive co-operation 519, Schmoller on 544 n.;

meanings of the term 654 (See Cartels, Monopoly, Trusts)

Commissions of inquiry, regulative in-fluences of 440—4, 634

Common Law, in relation to Trusts 511---12

"Common" or "allied" costs, distinguished from "joint" and "general" 192-4

"Communities of interests" 340-3, 343-6, 540-2, 570

Competition III, III-vi; not necessarrly aggressive 179-80, 396; its interpermeation with monopoly 396. 397, 423-9, 448, 512; Stephenson's dictum as to 409, 485; and road traffic-426-9; and ocean traffic 435-8; destructive forms of com-bated by Federal Trade Act 518, 520, 521, 522; "unfair" methods of

537; meanings of the term 653-4 Conder, on canals in relation to railways 499 n.

"Conditional" or "incomplete" monepoly 397, 398; and railway problems . 450 n.; in multiple ownership (Ap-

pendix L)
"Conferences" 435—40; South African 438 n., 439, 441-2 n., 444 n.

Conrad, on wheat prices 261, 757 n.; on purchase of coffee 814 n.

Constant Return, and elasticity of supply 188 n; in relation to monopoly price 404

Constructive cooperation III, XI-XII; and industrial research 99-102, 179-80, 604-9; contrasted with destructive competition 179, 518-20; and cartels 179, 562; and the work of the company promoter 329—31; of railways 487—92, and canals 505; automatic forms of 598-603; in engineering and electrical trades 591-2, 615; in pottery and other industries 603-10; in export trade 612-16; in marketing 611-16, 633, 813 n.

Consular service, improvement in

Consumer 215; effects of machinery on 248 n.; and price regulation 622; defenceless against network of cartels 623-6; Adam Smith on 747-8 n.; changes in habits of 804

Continuation schools, in England 98, 351; in Germany 131 n.

Cooke Taylor, W., on child labour in domestic industry 73 n.; on Miss Martineau 765

"Cooperation" on the Rochdale plan 289-95; and marketing 299 n., 301, 813 n., 815, 854; and mills owned by working men 319-20; in dairy produce 812 (See Constructive cooperation)

Copartnership 292 n., 295, 854-5 Copper, foreign supplies of 283 n.; Amalgamated Company 539 40 n.;

INDEX

and electricity 803 Corn-laws 82—3, 749—54 "Corner" in wheat 260 n.; Leiter's 263 n.; in cotton 800 n.

"Corporation" 513 (See Joint Stock Companies)

"Cost-accounts" 365-7; under scientific management 367-9; how aided by associations of industry 606, 610; of railway property 840 (See Accounting)

Cost of production real and money 183; relates to whole processes 181, 190-2, 269; for a market 183-4; and profits of middle man 184-5 n; of joint products 181, 191-2; its relation to value 184, 194-6, to monopoly price 404—5, and to price policies of far-seeing trusts 523—6

Costs of marketing 184; attach to whole processes 269-71; and "costs of production" 274, for different classes of goods 274-82, 804-11

Cotton industry, and inventions 67 n : and standardization 56-7; and slave labour 145 n.; vertical and horizontal expansion in 230; and localization 286, 595, 601-3; and Joint Stock Companies 320 n.; and standard wages 382-3; specialization in 601-3; and association for scientific research 606, 608; early history of in U.S. 778-9 n.; markets 799-802

Countries, new and old contrasted 141-2, 696 n.

Craft gilds, early formed by weavers and bakers 704; their regulations 707 n.

Crask 44 n., 712 n., 731 n.

Crump 264 n.

Cunningham, Archdeacon, on capital-ism in exotic trades 717 n; on "domestic" industry 716 n., 718 n.; 702 n., 707 n., 724 n.

Currie, Sir Donald 441-2 n.

Curtiss, 782 n.

Custom, its influence in early civilizations 197-9, 706 n.; and in agriculture 199-200; its aid to industrial technique 198, 201, 797; had no sway on prices of harvest products 797—8 n.; more plastic than it seems 797

Cutlery trade, obstacles to machinery in 213 n; and "industrial atmosphere" 284

Cycle industry, changes in 243

Dairy produce, and cooperation 292 n.. 812-13

Darwin's "law of the survival of the fittest" often misunderstood 175 ---B

Davenant 724-5 n.

d'Avenel, on ransoms as a source of wealth 171 n; on wheat prices in France 795-6 n.

Dawson, W. H. 124 n., 562 n , 575 n. "Defensive" combinations 401

"Deferred rebates" 439-42; their resemblance to "tying clauses" 234, 536, 626-7; and American railroads 550 n.

Definition in Economics 214, 680 Defoe, on character of the English

40 n.; on child labour 73 n; on English workman 113 n., 706 n.

Demand, elasticity or responsiveness of 181, 186, 403, 405, 794, 826, its adjustment to supply 185—8
Democracy, in relation to Scientific

Management 389-94; and dangers of bureaucratic control 602 n., 666 -7, 669-71, 851

Demolins 114 n.

Denmark, cooperation and standardization of dairy produce 812 Dent, on State railways 496

Denton, England in the Fifteenth Century 702 n.; on inland ports 703 n.; on Black Death 706 n.; on wages 709 n.

Department Stores 296-9

"Deposits" of a bank, their relation to national wealth 339 n. Depression of trade, influence of price

regulations on 629-35 Dewey, Prof. 777 n., 778 n.

Diercke 109 n.

Diminishing Return, in agriculture and mining 188-9; distinguished from mappropriate distribution of resources 189—90 n; m building 190 n; and taxation 405 n.; in relation to colonies 731, and to Protection 760-2

Discrimination, in retail trade 282, 416, 439-40, 521, 810-11; in railway traffic 416, 439—40, 460—2, 472, 482, in the beef industry 416— 17 n; constructive and destructive 417—18; regional 836—7

Disraeli, on effect of war loans 78 n.—

Division of labour, Abbé on 353; rise of 682 (See Specialization)

Dodd, George, The food of London 804 n.

"Domestic" industry 49, 715-16; in Germany 124 n.

Dress, influence of Paris and London on 112, and fashion 808-10 Drury 373 n.

Dudley North, on Money 723

Dumas, on fortunes amassed by statesmen 171 n.

Dumping, by Britain 157, 630-1, 781 -2; by railways 479; or "local price cutting" 521-2; by Germany 563 4, 629-30; American legislation on 630

Dyche, J. A., "the Jewish Immigrant" 247 n.

Dyeing and finishing, generally worked by powerful firms 231, 595, 597

Dyer and Martin 205 n.

Dyestuff industries, and intercommunication of processes 241; secrecy in 508; in Germany 570, Corporation 608; state assistance to 672 n.

Eckert 753 n.

Economics, method of, Appendix A; and business men 663-4, 805-7; in first half of 19th century 758 **—**60

Economies, external and internal 167; due to advance in technique 206-13; in the steel industry 219-28, 528; of uniform and continuous process 235-42; in the clothing trade 304 n. due to agreements of railways 487—

Economists, not opposed to Factory Acts 77, 763-6; their overstatements of arguments for Free-trade 84 -5,758-60, and economic method 673-4; political use of term 755

Edgeworth, Prof., on theory of monopoly 399 n.; on mathematical aide

poly 399 n.; on matternation and of railway science 449—50 n. Education, Appendix K; in Scotland 53, 96—7; reform of in Britain 95—9, 636—8, 672; British and German compared 97 n., 129—32, 357, technical and workshop 351-4, and spelling reform 352, function of 356, 819-21; of business faculty 356-7, 583-4, 821-2

Efficiency, conditions of 350-4; and scientific management 374 n., 377—8, 384—8 368-9,

Eggs, grading of 812 n. Ehrenberg 171 n., 692, 722 n.

Elasticity, or responsiveness of demand 181, 186, 405, 794; in relation to monopoly 403, 404, 826 Elasticity of supply, with regard to

short periods 188 n.

Electricity, Appendix H, 2; organization of its industry in Germany

569-70, 817; and small producers 717 n., 789—90

Electric Supply Company and exclusive dealing 536-7

Ellison, 58 n.

Emerson, his method and Taylor's compared 368, 373 n., 385 n., 391 n. Emery, Prof. 260 n., 775 n.

Emigrants, cost of transport of 430 n. Employee, growth of espret de corps of 326; and relations to employer 327, 350-4, 381-3 (See Labour)

Engineering trades, advance in technique of 206—10, 218—21; during the world-war 223—8; in relation to standardization 221-2

English I, III—v; characteristics 35, 55—6, 61—2, 101 n., 247 n., 453, 464, 701, 810; agriculture 51-2, 63-4; education reform 95-102 (See British)

"Equal pay for equal output" 846 n. Equilibrium price 194; instance of unstable 421

Esprit de corps as a business motive 325—7

Evolution of Industry 9-10, 697-8 Expenses of production, in relation to marketing 183-4 n.; and value 194--5

Export prices, of German steel 564-5; of potash 575; in Germany 768,770; m U.S. 781—2 (See Dumping)

Export trade, changes in its methods 613; constructive cooperation in 613-16; functions of agent and merchant in 614-18

External economies 167; in relation to Increasing Return industry 187; and standardization 227, 244—7

Factory Acts, not opposed by leading economists 77, 763-6

Factory system, causes of degradation which accompanied it 71-7, 183, 717---18

Fairs, and modern exhibitions 705 Fashion 118-20; and French industry 112; in cotton and woollen goods 802: in retail trade 808-10

Fatigue, in relation to scientific man-

agement 386-8

Fay, C. N. 514 n. Fay, C. R. 657 n., 813 n.

Federal Reserve Act of 1913, 344 Federal Trade Commission, and restrictive competition 517-8, 520 -2; and monopoly 531--2, and cooperation in export trade 634

(See Bureau of Corporations) Federation of British industries 612 Ferry, traffic on, illustrates interpermeation of competition and monopoly 424-6

"Fighting brands" 435 n.; and Standard Oil Company 533; and Tobacco trust 535

Finance, its control of industry 103 n., 343-6, 540-3, 558, 566-8, 570, 803 n.; and company promoting 330-7

Fish, retail price of 610 n., 805, 806 Flint, on profits of industrial amalgamations 332 n.; on leaders of consolidations 364 n.

Flour mills, growth in size of 236 Ford motor works and standardization of operation 237-8

Foreign trade I, n; its relation to national industry 3-5; and relations of imports and exports 627-8; early forms of 682-4, 686

Fortrey 113 n., 709 Foulle, on variations in price of wheat

in France 109 n.

"Franchise trusts" 514

Free Trade, Appendix E; and British shipbuilding 590; and overstatements by economists 760-2

Freight rates 430 n.; influence of Tramps on 431—2; of Liners 434—6 French I, vr; individuality 115-817; leadership in fashion goods 112, 118-20; team work in design 116, railway policy 477-8; canala 499; mercantilism 740-3

French war, and British industry 64-7; distress caused by 73-7; and fiscal policy 77-85; corn prices during 749-51

Fruit, marketing of 275, 805, 813 n. Function, in relation to risks 266; organization by 371-5

Furniture, costs of marketing 807-8 "Futures" 260; in wheat and other organized markets 261-7, 801-3

Galton, on Evasion of Wages Acta 738 n. Gambling and speculation 253, 258 Gantt and scientific management 368, 373, 385, 391

Garcke and Fella 369 n.

Garden cities 818 n. Gardiner, W. M. 101 n.

Garton Foundation Report 393 n. Gaskell, on employment of children

76 n.; on domestic industry 716 n. Gattie, and railway goods traffic 490 n. Gee, on colonial trade 733; on fishing

industry 744 n. General and Particular Standardization 201-2, 221-3

General charges of a business 181, 191, 192-4, 413; in relation to prime cost

274; in cost accounting 367-9, and monopoly 413-15; of a railway 467-71

German I, vii, III, ix—x, Appendix F; characteristics 101 n , 122, 136, 138, 545-6; gain from Thomas' invention 94-5, 135 n , 557, 834, chemical and colour industries 95, 133-4, 241, 570, methods of education 97 n., 129 —32, 357 n, 636—8; adaptability .104 n.; Universities 123, 129—30, 357; "scientific proletariat" 131; "team work" 134, methods of mar-keting 135—6, resemblance to a new country 137; association of banks with industry 341-3 n, 347-9, 558, 566-70, 803 n.; law against stock watering 336 n.; ports 435 n; Hamburg-Amerika shipping line 434 -5 n.; čanals 125, 499—500, 447 8; railways 125-6, 447-8, 478; Metal Buying Combination 570; leadership in cartels 343, 544—7, 568, 851; Company Law 545; tendencies towards giant businesses and trusts 569-70; monopoly of potash 575; protective tarif 563-5, 852-3, 769-72; wages and purchasing power of money 853, debt to Jews 582; semi-military organization of labour 582,851, commercial strategy 613n; cotton market 801 n.; misunderstandings of Adam Smith 747-8 n.

Giant businesses, growing self-suf-ficiency of 167-70, causes of their increase 172-4, 242-4, 507-11; and social well-being 174-6; influence of strong men in 363-4; in U.S. 527-43; in Germany 556, 569-70; and export agents 614 (See Trusts)

Gibb, Sir G. S, on State ownership of railways 494; and railway statistics

Gilbreth, on economy of effort 380 n. Gilds 137; their patriotism and their selfishness 685-6; their influence on decay of towns 707 n. (See National Guilds)

Gladstone, and the purchase of English railways 833; on 3rd class travelling 834 n.

Glass industry and sectional interests 641 n.

Goldwin Smith 43 n.

Gothein, Dr G., on State ownership of mines 574 n.

Government, III, xIV, 8; changes in its possible and appropriate functions 42-3, 45; industries during the world-war 224, 593; regulative influences in Britain 440-4, 480, 491, 840 n., 843; and America 516 -20, discipline or ownership of railways 492-500; and shipping trade 442-4; in relation to electrical supply 502-3; and canals 505-6; monopoly of tobacco 534; in relation to cartels 574—6; in relation to scientific research 608—9, 671—2; and capital 648; and Adam Smith 719, 743--8

Grading of wheat 257 n.; ore and coal 267; cotton 799; wool 801-2, hops 811; dairy produce and eggs 812-13 (See Standardization)

Grain, speculation in 258-62, 275-6; as measure of purchasing power 709 n., 794; melastic demand for 794 n.; d'Avenel's diagram of mean prices of 795—6; Indian prices of 796—7; production and marketing contrasted 793 (See Wheat)

*Grands Magasins" or Department Stores 296, objections raised to 299

-300, 302 n., 815 n.

"Granger" meeting contrasted with Socialist 446 n.

Greeley, H., on migration and cooperation in U.S. 145

Green, Mrs 686 n. Gresham, Sir T. 729

Greville, on economists and factory legislation 764-5

Gross 685 n. Grosvenor 784 n. Gruber 127 n.

Hadley, President, on stock watering 336, 357 n.; on centralized administration of business 364; on State management 668 n.

Hales, on taxation of imports 723 n. Hamilton 776-

Hammond, M. B., on distribution of general costs of railway 469 n . 477 n. Handicraft and machine work con-

trasted 639-40 Harvests, and wheat prices 261, 750 n., 755---6

Hauser, Prof. 342 n.

Hawkins, on standardization in Britain 224 n.

Hayes, on methods of obtaining "original cost" 843 n.

Heeren 682, 684

Held 718 n.; on critical passages from Adam Smith 748 n.

Hewins, on Statute of Artificers 737 n. Heyman 559 n.

Hill, Miss Octavia, and purchase of coal in East London 814 n. Hilton 635

Hırst, Mıss 769 n.

"Holding Company" 514 Holland, Appendix B, 3; anticipated modern technique 33, 694-5 Hooker, on wheat prices 261 n.

Horizontal and vertical, expansions 215-16; in the steel industry 218-21, 528-31, 559-65; in the cotton industry 230—2; in relation to Britain's prosperity 590 Household or "homely" industry 48, 276, 715—18; in Tyrolese villages

714 p.,

Howard, Ebenezer, and "Garden Cities" 818 n.

Hoxie 373 n., 385-6, 391 n.

Huber 684 n.

Huet, and Dutch trade 692 n., 694 n. Hume, on money 723 n., 729-30 n; and the "Economists" 741, 743 n. Huskisson, his fiscal policy 81 n.

Hutchins and Harrison 73 n.

Ideals, and national life 3-4, 647, 650—1, 662—5; and cooperation 291—2

Ideas, their application to practice 172 —3, 203, 206

Tles 203 n.

Increasing Return 187; in the field of science 133; and elasticity of supply 188 n.; and monopoly price 404, 405; and taxation 405 n.; and patents 407; and Protection 760—2, 778

India, her future 162; and Protection 653 n.; fluctuations of wheat prices in 796-7 n.; influence of custom in 797-8 n.

Individuality, versus massiveness of production in France 116—20; a British characteristic 580; its strength and its weakness 583—4; in the steel industry 588—9; as an element of national wealth 583; m furniture 808

"Indivisible" industries 786 "Industrial atmosphere," of Sheffield

and Solingen 284, 287 Industrial Commission, its scope and

authority 259 n; its investigation of Trusts 523-4, 539-40 n.

Industrial Councils 393, 643-4

Industrial fluctuations, as affected by Trusts 540-3; by cartels 573-4, 629 - 35

Industrial leadership I, III—vIII, 3—4, 9-11; and foreign trade 14-16. 26 -7; and education 95-9; speculation as to future 159-62

"Industrial Revolution," merely one stage of Evolution 9; in limited sense of term 71

Industrial technique II, II—IV; its progress formerly dependent on custom 197-200, later on records and standards 201-2, 466; methods of its advance 203-5; its debt to engineering 206-8; and the working classes 212-13

Industrial unrest, causes of 643 n.
"Instruction card," its place in Scientific Management 372—4

Insurance 264; against opposite risks 255, 259-60

Interchangeable parts, anticipated by Holland 33, 694-5; in aeroplane engines 227-8 (See Standardization)

Interest, a fall in its rate indicates generally diminished charges for the services rendered by wealth to wellbeing 408; and growth of capital 710—11 n.

Interlocking directorates 344-6, 540 -3; provisions in Anti-trust Act against 542 n.

Internal economies 167

International Harvester Company, its exclusive dealing 536

International trade (See Foreign trade) Interstate Commerce Commission. principles governing 468—9, 477, on railways 466, 477—8, 480—1, 638, 842—3; and "dumping" 522, 840

Invention, in textile industry 58 n; characteristic of English 61-2, 101 n.; methods of 203—4, 207—10; triumphs of 210-12; and patents 244 n., 730 n.; ever-widening scope for 242; social gain from 325 (See Industrial technique)

Ireland, her relations with England 54, 733-4; her cooperative dairies 54, 292 n.

Iron, and English leadership 60-1; European sources of 126; German production of 95, 557 n. (See Steel) Italy 107

Jacob, on wheat supplies in 1826-7, 739 n.

Jannet, M. 540 n.

Japan, her education by foreign trade 22, her industrial characteristics [6] Jenks, J. W. and Kemmerer, E W., on "securities of industrial combina-

tions and railroads" 540 n. Jevons, H. S., on State management 668; 267 n., 586 n.

Jews, characteristics of 48, 54, 247 n.; and financial activity 103 n., 696; their value to Germany 582; Sombart on 696

Joint Committees of Employers and Employed 392, 643—4, 645 n.
"Joint products" 181, 192—3, 413,

806; railways as illustrating 467-

Joint Stock Companies II, vini—ix; origin of 35, 36, 68 n., 311—12, 691, 712—14; successors to Regulated Companies 36, 312, 725—30, drawbacks to 317—18, 321—4; and the ootton industry 320 n.; systems of checks in 324—5; and mutual stimulus of officials 325—7; compared with private businesses 327 8, 645-6, and financial control 344-6; element of cooperation in . 329; Adam Smith on 313, 712; Prof. Scott 313 n., 711 n., 728—9, Schmoller 714 n , Fortrey 725 Jones, J. H 284 n.

Jones, Richard 723 n. Jutzi, W., on trusts v. cartels 561 n.

Kapff, Dr., on the colour industry

Kartellen-Enquête, on profits in booksellers' trade 300 n ; character of its debates 546-7, 576

"Key" industries 671—2 King, Charles 724 n.

Kirdorf, on use of the word "bounty" 564 n.; on cartels and wages

Knies, on tendency of industrial stages to "synchronise" 698; on entical passage from Adam Smith 748 n. Knoppel 375 n.

Kropotkin, Mutual Aid 165 n.

Laboratories, and national industry. 99-102, in France 116, in Germany 131, 134; and team work 205, and large businesses 325

Labour, Marx on 71; net product of 72 n.; its increasing adaptability 168—70; machinery and demand for 152, 212—13, 237, 248 n., 698— 9; relation of scientific management to 381-94; and cartels 570-4; and Black Death 705-7, 708-9; and Mercantilism 737 (See Working class)

Lausser faire, laisser aller 84, 742-3 Lancashire, the home of automatic organization 286, 599—603

Land, its ownership and management contrasted 51; is in a class by itself 190 n., 827; speculation in Melbourne 265; monopoly of 82-3, 531, 750-1, 824-5; in relation to canals 504 n.; taxes on 827-9; for railways in London 844 Landauer 231 n., 232 n.

Lardner, Law of Squares 27, 28, 682 n.; laid foundations of railway science 449; on passenger traffic 684 n., 834 n.

"Large business," an ambiguous term 173-4 (See Giant businesses) Large cities, their industrial peculiarities 284—5, 815—17 Laspevres 745 n.

Lauderdale, Lord, contrasts English and French export trade 112-173, on Factory Acts 763 Launhardt 449 n.

Law of Squares in transport and trade 27, as affecting England's leader-ship 28; applied to Germany 127;

.m early forms of trade 682 n. Lawson, T. W 539 n. Leaf, on French artisans 116 n.

Lecky, on slavery laws 43 n.; 89 n., 727 n., 733 n , 743 n
Lectures, function of 356—7 n.

Leroy-Beaulieu 117 n. Levasseur, on art in French industry ,111 n.; 109 n., 110 n.; 113 n., 117 n., 741 n.

Leverhulme, Lord, on Copartnership 855 n.

Levi, Leone 68 n., 832 n. Levy, on early monopolistic tendencies of English 713 n.; 730 n., 590 n.

Lexis 670 n , 731 n. Limited Liability Acts 312

Last, on spirit of economic nationality 33; on English character 34 n.; on the Zollverein 124, 767, 768; on Protection 688—9, 761; on the "In-dustrial" system 697—9; on navigation laws 731 n; on Mercantilism 738—9, 741 n; on Adam Smith 746, 769, on English trade practices 768 782, on German import duties 768

Livesey, 855 Lloyd, G. T. H. 284 n.

Local taxation and expenditure 89-90 Localization of industry, in Dutch towns 33, 694, in America 150-2, 184, 287-8, influence of marketing on 283-8, 816; and movement towards the sea 283-4; in large cities 284-6, 816, of cutlery trade 284, 287; of cotton industry 286 n., 601—3; and railway discrimination 474—9

Locomotive industry; carried on by railways 322-3, 591

Loeb, Dr Ernest, on influence of the great banks 343 n.

London, external trade of 24; trade in the Mercantile age 39 n.; amalgamation of means of transport 428; coal supply 451 n; wheat prices 795, and meat 806, localization 815—16; rate of mortality 818 n.; railway land

"Long and short haul clause" 836—8

Lorenz, on Increasing and Diminishing Return in railway problems 457 n.; on value and cost of railway service 465 n.

Lowe 66 n.

Luxury, in relation to French industry 111; early trade in 683; railways and growth of 804

Macassey, Sir Lynden 641 n. Macdonell, Sir John 635 n.

Macgregor, Prof. 577 n.

Machinery, and employment of labour

138 n., 152, 168, 209, 212—13, 237, 248 n., 639—40, 698—9; benefits of to working classes 152, 640, 648—9, 698—9; effects of standardization on 206—15; as creating machines 206—8, 210—12; increasing specialization of 226, 245; and hand work contrasted 639—40; prohibitions of its export 774; in the furniture trade 808

Macpherson, on English fashions in France (1785) 112 n.; on Prussian character 123 n.; on variations of price of wheat in England 585 n.; 795; 726 n., 727 n., 731 n.

Macrosty 577 n., 597, 624 n.; on speculative market in iron 803 n. Madsen, on tobacco monopolies 534 n. Mahaim, Prof., on Belgian railways

Martland, F. W., his great dictum 701, 793; on amount of land in relation to supply of food 701 n.; on mediaeval conditions of labour 705 n., 798 n.

Manchester, as an international trade centre 286

Mandleberg, Sir C., and marketing of exports 616 n

Manufacture, characteristics of modern 55—9, 698—9; ever-rang prestige of 171—3; change m meaning of the term 718 n.

Marketing II, v—vii, Appendix J; in relation to production 47—9, 181, 184—5, 249, 274, 509, 511, 611, 715—17; compared to fly-wheel 251n.; costs and risk attach to whole processes of 269—271; changes in character and distribution of its general costs 274—8; and localization 283—8, 601—3, 816—16; of "branded" goods 300—2; of textiles 279 n, 286 n, 602 n., 799—801; of steel 283, 287, 592—3, 802—3; how aided by vertical expansion 587, 589, and by associations 611—16, 723 n.; of perichable goods 805—16

Markets, general and particular 182,

400—1, 629; organized 256—8; associations for control of 400—2, 611, 620—2, for wheat 258—9, coal 267, ootton 286, 602 n., and various commodities 801—3

Marshall, J., on wheat prices from 1700—1825, 753 n., 755 n., 774 n. Martineau, Miss, and the Factory Acts 765—6

Marx, Karl, his doctrine of "Surples Value" 71-2 n., 657; and the growth of large businesses 176-7; quotes Antiparos on water power 790 n.

Massive production I, III; methods of 59-63; versus individuality 116-20; in German education 131; in relation to Protection 138-9; of powdered and liquid materials 235-8; of by-products 238-42; in men's clothing 304

in men's clothing 304
Mathematics, and theory of monopolies 450 n.; and economic method 678 n.

Mavor, on marketing of wheat 799 n. Maximum net revenue price 404
Maximum total benefit, illustrated by ferry trafto 426

McCulloch, in favour of Factory Acta 763

McKillop on fatigue and cost 608 n. McPherson, Prof., excellence of his railway tables 480 n.; on regional rate structures 837 n., 838 n.

Meade, 332 n., 331 n.

Meakın 353 n.

Meat, an illustration of "joint products" 192, 806; packing firms 237, 239 n.

Melbourne land speculation 265 n. Mendelian doctrine 164—5 n.

Mercantilism, Appendix D; its policy adapted to transient conditions 41—6; and the relation of buyers to sellers 272; List on 697; and protection 723—4; and labour 737—8; in France 740—3

Merchants, their work and that of manufacturers compared 171—4; services of 616—18; as financiers in early times 710, 717

Meyer, B. H., on principles governing Interstate Commerce Commission 468—9; on U.S. railway rates 840 n.

Middleman, in relation to cost of production 184—5 n.; functions of 278—80; profits of in fish trade 610, wall papers 610 n., and dairy produce 813

Migration, of heavy industries to open country 228—9; and to the sea 283—4

Mill, James, 674, 758

Mill, J. S., on partnership 313 n; on over production 640 n; his writings 674, on French mercantilism 740 n.; on protection 760; on Factory Acts 763

Milling, flour 235; paper 234; insurance in 258-60; and action of National Association 624 n

Mining, a transport industry 787; economy of large production in 787; and State management 669

Mixed works 215; contrasted with pure 220, in the steel industry 218—21, 554—9

Money, value and social value 45—6; strengthened the position of buyer relative to seller 271—2; "Trust" 541; depreciation of 709 n; and mercantilism 720—4 (See Purchas-

ing power of) Monopoly III, I-IV, Appendix L; in mediaeval history 43, 578, 685, 713, 725-7; partial and permanent 196; in buying and selling 272, 402, 620; "conditional" or "provisional" 397—8, 450 n.; obstacles to absolute 398—9, 403 n; element of in cartels 399-400; Profs Edgeworth and Pigou on theory of 399 n.; net revenue 404, maximum net revenue price 404, and unfair uses of competition 396, 512, 516-20; and the price which the market will bear" 404-5, 425, 835-6, and elasticity of demand 405, in relation to Increasing and Decreasing return industries 404—5; policies which benefit the public 405—9; taxes on 410—12, 414, 824—7, distribution of general costs of 413—15; and price discriminations 415—18; problems of correlated 419—22, 559 n.; in multiple ownership 421, 824—9; traces of in road traffic 426—9; in the shipping trade 429— 31, 438 n; appropriate control of based on thorough studies 516-20, 531-2, 576, 578-9; of landlords 531, 578, 750-4; and Bradford Dyers' Association 605; of cotton thread industry 595-7, and class advantages 636-9

Monotony, Abbé on 353-4; in relation to scientific management 388

Moody, 539 n., 541 n.

Morgan, Pierpont, and the financial control of trusts 541

Morison, Sir Theodore, on the Indian market for wheat 796

Morris, R., and U.S. railway statistics 840 n. Motor industry, standardization in

Motor traffic, and localization of industry 286; may sid canals and railways 428—9, 501—3, 787; in relation to London transport 428; and distribution of percels 428 n.

"Multiform" standardization, America's leadership in 140—1 (See Standardization)

Mun, anticipates notion of "invisible exports" of shipping services 38 n; 711, 722 n., 723, 724

Munition work, specialization in 224

-6, 592, 641-2; and cost-accounts
610 n.

Munsterberg 307 n., 378 n.

Music, German training in 131 n.; standardized by unwritten tradition 198 n.

National Cash Register Company 537 n National Guilds, III, xiv, 7; 651; and profit-sharing 855 n.; their difficulties 660, 662

National Income, distribution of 649 —50

Nationalization of railways, in Germany 447; reasons for its success in Prussia 447 n.; good and evil of 492—7

Navigation Laws 71, 730—1 Nebenius, Roscher on 124, 768

Necessaries, absorb a diminishing share of family income 275

Net product of labour 71—2 n. "new" countries and "old" compared 141—2, 696 n.

Newmarch, on economies after French war 87 n.; on Factory Acts 763 (See Tooke)

Neymarck 741 n.

Nicholson, Prof, influence of Adam Smith and Ricardo on Pitt and Peel 758 n.

Notz, W. 614 n.

Ochenkowski 722 n.

Oddy 66 n.

Olsson, W., on addition to British banking system 347

Oppenheimer, Consul-General, on commercial combinations 546 n., 572 n.; action of Coal Syndicate 553—4 n; conflict between wire and nail carriels 559 n.; export prices 564 n.

Over production 770; J. S. Mill on 640 n.

Owen, Robert 289

Palgrave, Sir R. H. Inglis, and the financing of canals 503 n.

Paper mills, in Black Forest 235 Paris, attracts creative faculty of France 119, 817

Parkhurst 374 n.

Particular, Standardization 201; tendencies for it to become General 202, 221—**3**

Passenger traffic, economy of time in British 453 (See Railways)

Patents, and invention 244 n.; and law of Increasing Return 407; problem of tax on 421; in the tobacco industrý 534--6; laws 536--7; in early tımes 730 n.

Pax Romana, its influence on viability

Pax Cosmopolitana 2

Peel, his fiscal policy 82-4

Periods, long and short in problems to value 185—8, 396—7; in relation of "special" and "general" costs 192, 456; and the interests of buyers and . sellers 272-4; in railway problems 453---8

Person, Prof., on cooperation of empleyees in scientific management 390 n.

Petroleum, its by-products 239; a transport industry 786

Petty, his great rule 33, 106, 112, 167; on trade and heterodoxy 34 n.; his estimates of England's trade 38 n.; on labour of Seamen and Freights as exports 693

"Physical valuation" of railways 843 Physiocrats 741-3

Pieno manufacture, and German training in music 131 n.; and air pressure 212

Piece-work wages, generally preferred by employers 381; objections to 382; standard rate of 382-3

Pigou, Prof., on the theory of monopolics 399 n.; and railways 449 --50 n.

Pitt, on England's foreign trade in 1798, 66 n.; his loans 78; his fiscal

policy 80-2 "Planning Department" 370-3 (See Scientific Management)

Plunkett, Sir H, and restrictions on Irish industry 733-4

Pomsard 114 n. Pollard 738 n.

"Pooling" of railway traffic 488-9; and wagons 489 n.; uses of term 511

"Poor," Charles Booth's definition of

Poor-law, increased the evils of early factory system 76; and the French Revolution 78

Population, of England 700-1; and of her colonies compared 105; distribution of in U.K., Germany and France 126 n.; composition of American 149 n., 152 n., 158-9; canals and decentralization of 502, 505

Ports, mcrease in size of 433, 791; remote from coast 703 n.

Postal services, anomalies of 428 n. Potash, German monopoly of 126, 575 Pottery Manufacturers Association 604 Powell, G. H. 813 n.

Powers 776 p.

Pratt 473 n.

.Preferential Rates (See Discrimina-

Price II, 1; its relation to demand and supply 182-9; "which the market will bear" 404-5, 425, 810, maintenance of in particular markets 400-1; regulations 620-2

Price, W. H., on early patents 62 n.

Prime Cost 181, 191; and normal
price 274; and "general" costs 191,
274, 413, 840—1; and cost-accounts of a business 367

"Productive" industries 170

Profit-sharing 856

Profits, of small shopkeepers, how estimated 294 n.; of middleman 610 n.; in retail trade 810-11; rate of m early times 710

Progress, and war 2, and the quality of life 5; dependent on freedom of institutive 174, 199, 249, 325, 645-6; in relation to records and standards 199-202; influence of small businesses on 325, 525, and purchasing power 392-3, 408

Promoter of companies, his functions and methods 329—36

Property, in relation to distribution of wealth 675—6

Protection, to English agriculture 81-5; in France 120, in relation to massive production 138-9; to com- bination 526, 530; and cartela
 563-5, 632; in US. 157, 776-84; its effect on wages 853 n.; and national prosperity 578, and mercantilism 723-4; in Venice and Spain 688-9, and Decreasing and Increasing Return 760—2; and localization of industry in U.S. 779; "educative" 777—80; in Germany 769—72, 851

Prothero, R. E., 200 n., 706 n., 714 n. Prussia, her railway policy 447—8, 454 478, 493 n.; her canals 500, 502 n.; and wheat production 758 n.; and Germanization 769

--3

Psychology, its use in Advertising 307 Publicity, in stock exchange transactions 336-7; obtained by Royal Commissions 442, gains from 634 Publisher, services of 302 n.

Purchasing power of money, in rela-tion to wages 9, 385, 708—9, 737—8: how influenced by technical progress 408; as affected by Protection 794; and price of grain 708-9 n , 794 Pure monopoly and railway problems

Quesnay 744 Quintance, Dr 773 n.

450 n.

Railways III, IV-VI, Appendix M; growth and characteristics of British 68-70, 89-90 n, 449, 450, 453-5, 463-4, 516, 785-6, 830-3, in France 109, 477, 495 n, 835 n; in US. 151-2, 445-7, 452, 454, 477, 495 n., 764, 836—8; as manufacturers 322—3, 591; Lardner and science of 449-50 n; and economy of time 452-4, 463-4, 490-1; goods and passenger traffic compared 462-4; and shipping companies 456, 463-4; as illustrating "joint products" 467-8, and localization of industry 474-9; and "keeping everyone in business" 476—7; cooperation and pooling 487—92; State regulation of 480, 840 n, 843; and ownership of 492-7; in relations to canals 478, 479,499-501,504-6; and war 492; and the working classes 804, 834-5, Statistics 838-41; capitalization 841-5; British directors of 845

Rawson, on variations in price of wheat 755 n

Real cost of production, in relation to social problems 183

Rebates, and American railroads 550 n.; in the engineering trade 632 n. (See Deferred rebates)

Records, their aid to modern tech-nique 201-2, 204, 466

Redfern, P 293 n.

"Regulated companies" 36, 312, 711, 712

Rent, and the French war 78, 750-1; and a tax on land 824-5

Representative or typical firm 181,509; in relation to the growth of Joint Stock Companies 314—16; expansion of 509, in U S. 846-9

Research, in relation to industry 99-102; 671-2; in France 116; in Getmany 131, 135; and team work 205

Retail prices II, vi, Appendix J; influence of demand on 275, 804-6;

of various classes of goods 281-2, 807-10, high in America 304; of fish 806 n., in wealthy and working class districts 807-8

Retail trade II, vi, vii, Appendix J, its relation to wholesale 278-80, social waste in 280, 300, in US 298 n., cartels and 280, 547-8, diserimination in 282, 416, 810-11

Ricardo, on foreign trade 19 n , on relation of cost to value 396-7, and progress of economic science 674, 758 n., on colonial trade 734

Riesser, on German credit banks 341n 342 n.; cartels 549 n.; the fusion of industry and banks 567 n., 568 n. Riley 721 n.

Ripley, on time element in railway problems 457 n., rule of direct costs 464—5 n.; pooling of railway wagons 489 n., railway valuation 843 n., 838 n ; 845 n.

Risks II, v, dealings in 252—5, 258—60; balance of 255, 259—60, as related to functions 266—8, 270, 645 - 6

Roads, and monopoly 426-8; in relation to canals 500-1; in England in early times 702, 703; national interest in 785, 787; cost of trans-

port on 798 Roberts, Map of Commerce 712 n. Robertson-Smith 682 n.

Robertson, W. A., on railway discrimination 474 n., 476, on railway

pooling 488—9 n. Rockefeller, J. D., his "power of control" 359 n.

Rogers, on fluctuations in price of stock 313 n; on English roads 702, on wages, 708, 709, 737 n., 714 n , on fluctuations in wheat prices 795 n.

Roscher 682 n.; on services rendered by "old" peoples to "new" 696 n, on List 768 n, 732 n.

Route clerk 375 n. (See Scientific Management)

Rowntree, G. Seebohm, on Belgian railways 495 n Royal Commissions, regulative in-

fluence of 442-4

Saint Léon, E. Martin 815 n. Salt, England's trade in 64-5 n; England's predominant supply of 586 n Salzmann 707 n.

Sauerbeck 632 Savary 39 n.

Schanz 731 n.

Schmoller, on English character 34; on education of business men 357 n;

on combinations and cartels 544 n., 573, 575-6; on Nile delta and Holland 684 n.; on trade between towns 686 n.; on early Companies 714 n.; on Mercantilism, 720-1; on Adam Smith 745

Schulze-Gavernitz, on high organization of cotton market 231 n.

Schumacher, Prof., on relation of banks to industry in Silesia 343 n., his eulogy of Prussian railways-447 n.

Schwab, on the control of large business 364 n.

Science, in industry, 95, 97 n , 101 n., 132-4, 179-80, 203-5, 232, 240-3, 538, 569-70, 608 n.; demand for extended study of 98-102, 593-4, 608 n.; ever widening scope for 242-3. State in relation to 609, 671-2; in education 820-1

Scientific Management II, xi-xii; its aims and methods 368-70, 466; specially suited to American industries 370, 374, 382, 393; "staff" or "functional" organization of 371 -5; a chief idea of, suggested by Babbage 376-7; and "a standard rate of wages" 381-4; and efficiency of plant 384-5; and the well-being of the worker 384-91; and demo-cratic control 391-4; in relation to the Whitley Report 393 n.; and business associations 607-8; Cole on 640 n.

Scotland, forces making for her union with England 53-4; her education 53, 96—7, her banking system 54, 313 n., 338

Scott, Prof., on Joint Stock Companies 313 n., 712 n.; on educative influence of imitation 351 n.

Seager 537 n.

Secrecy in business, 583

Sectional interests, changes in character of 4-5, 8-9; in relation to national interests 394, 620-1, 652 -3, in railway politics 494, 495, in the glass industry 641 n.

See, on selection of employees 247 n; on markets for materials and for products 283

Selfridge 297 n; "Organization Chart" 375-6 n.; map of Stourbridge Fair 703 n.

Senior, and the Factory Acts 763-4 Shaw, A. W. 304 n.; on advertising 307 n

Sheffield, and the cutlery trade 213 n. 587, 607; an epitome of Britain 587; Cutlers' Technical Society 607 Sherman Act 513, 517

Sherwood, Professor, on early forms of business 165 n.

Shifts, economy of 650 n.

Shipbuilding, early history of 33, 90, 679; standardization 226—8, 590 -1; fluctuations in 334, 633, in relation to steel industry 633, constructive cooperation in 591-2

Shipping Companies III, III; and railways, a case of correlated monopolies 421; competition of "Tramps" with 431-8, 440-1 n., 791; their resemblance to Branchshop Companies 434, growth of 433—4; German 434—5 n; and railways compared 456, 463-4

Shipping Rings, Committee on 440-Ships, sailing and steam contrasted 90, 429; their growth in size 227, 431 n, 433, 691, 790-2; exports of British and German compared 556; in long and short distance traffic 791; and caravan transport compared 682 n. "Shop disciplinarian" 374

Shovelling as illustrating elemental time studies 376, 378-80

Silk weaving at Lyons 116

Sliding Scale, and price of wheat 82-3 n , 735—8

Slot-machine system, its possible extension 301 n.

Small producer, survival of 227, 247— 9, 366 n.; in cutlery trades 213 n.; aided by standardization 223, 227, 234, 242-9, 582; influence on Britam's industry 525, supersession by large in steel trade 558; and electricity 789

Small shops, their hold on poor districts 813-15

Smiles 39 n.

Smith, Rollin E., on the grading of wheat 259 n.

"Social credit" 165-6

Social value, in relation to money value 45-6; of invention 325

Socialism, and the growth of large businesses 176-7; in Frankfort 446 n; changes in 651, 660 n.; and Physiocrats 744

Sombart, Prof. 59 n., 124 n.; on influence of Jews in finance 696

South Africa, industrial character of 160-1; and shipping rings 338 n., 439, 441-2 n., 444 n.

Spain 107 Spearman, on railway strategy 845 n. Specialization of Industry, stimulated by world-war 224-6, 593; Babbage on 224, in relation to standardiza-

tion 233-4, 244-5, 592; and size of business unit 508-9; in the

cotton industry 599-603; its anticipation of by Holland 694-5 Speculation II, v; in ordinary life 252; "constructive" 252-4; and gambling 253-4, 258, lessens risks in grain trade 252, 258—62, 799; manipulative 262—3, evil of ill-informed 264; in land 264-5; in cotton 799-801

Spelling, time wasted in 352 Spirits, consumption of in 1743, 44 Spontaneity, and German education 129-30

Stability of industry and trade, influence of trusts on 541; of cartels 573-4, 629-35

Standard, its place in modern technique 201—2; rate of wages 381—5 Standard Oil Company, its history 512, 532-4; its control of banks 54 l

Standardization, Multiform 141; Particular and General 201-2, 221-3, its early use in Dutch shipping 33, 694-5; in English manufacture 56-8, and in American 146-52, by custom 197-8, and alchemists 211; and Colbert 201 n., 740, developed by Boulton, Maudslay, Whitworth 206—9; and the skilled artisan 209 -10, 213, and speculation 223, in various industries 222-34, 304 n , 502-3, 594, 811-12, aids moderate sized firms 223, 227, 234, 244-9, 582; of conditions and methods of work by scientific management 385; in relation to cartel policy 548-9, lack of m locomotive industry 591

State (See Government)

Statistics, of wealth in U.S. 154 n.; of trade in ships 556 n; of cartels 549 n; of wages in mediaeval England 708-9 n.; of corn prices in England, France and Germany 757 n; and tanf changes 783-4; of railways 838-41; of expansion of business unit in US 846-9

Steel industry, and Bessemer's proces 91, and Thomas' process 94-5, 135 n., 557, 850, progress of in Germany 94—5, 125—6, 556—8, 850; localization of 126, 283, expansion of its business unit 218—21, 528, 589— 90, 594; and progressive standardi-30, 594; and progressive standardi-zation 223—7, exports, British and Germas compared 556; and cartel policy 554—9, 849—51; fusions in British 605 n.; in relation to shipbuilding 590-1, 622, 792; marketing of American 618 n.; speculation m 802, 803

"Steel products" corporation 618 n. Steelworks Union, 559-65, 588; and constructive cooperation 562, and Protective tarif 563-5, 631-2. 852

Steffen, on the Black Death 706 n., his analysis of history of wages in England 708--9 n.; 737 n.

Stephenson, on combination and competition 409, 485

Stock Exchange, standardization of its securities 256, 319, publicity on 337 Stocks, recent changes in amount and distribution of 274-8

Stock-watering 333, 336, 841; German law against 336 n.

Stourbridge Fair 703

Sumner 778 n.

Sumply II, 7; its adjustment to demand 194-6, 274-6, 396-7, "elasticity of" 188 n. "Sweating" System 72-3
Swire Smith, Sir 97 n.

Switzerland, her facilities for foreign trade 26; 655 n

Sykes, Colonel 797 n.

Symons 115 n.

Syndicates 551, 552; in banking 349 n.; and Trusts contrasted 561, and price fluctuations 572 n. (See Cartels)

Tarbell, Miss 534 n.

Tanf, and eartel policy 563—5,851—3; in Germany since the Zollverein 769-80, changes in American 776 -80; influence of on national prospenty 783-4

Taussig, on danger of nepotism 538 n 778 n.; on the historical method 784 n.

Taxes, due to French war 78—80; and loans 78-9 n., in relation to Increasing and Decreasing Return industries 405 n.; shifting of 410-11; on monopoles 411—12, 824—7; on "joint products" 414 n.; 414 n.: their imposition may benefit traders 444 n., and German cartel policy 851 -3: on land and agricultural produce 824-7, "onerous" and re-

muneratory 828; local 828—9
Taylor, F. W., and Scientific Management 368, 371, 374 n., 375, 386, 387; his method and Emerson's 373, 385 n, 391 n., m relation to Babbage 377—8

Team work in scientific study 11, 134, 205; in French design 116

Telephone, in business administration 234, 363 n.

Temple, Sir W., his survey of trading

cities and nations 690; on localization of industry in Dutch towns 694 n.

Tendencies and economic method 677-8

Terminal charges, in relation to railway costs 29, 464, 470
Terms, use of in economics 214,

Terms, use of in economics 214, 680 n.

Textile industries, deal with materials standardized by nature 56—7, inventions in 58 n.; standardization in 269 n., 229—32, localization in Lancashire 286, 599—603; markets for 801—3

Thomas, effect of his invention on Germany 95, 135 n, 557, 850 Thompson, C. Bertrand 373 n.; on

increase of output due to scientific management 374 n.

Thompson, Sanford E, his appreciation of Babbage 376 n; on elemental time studies 380 n.

Thomson 783 n.

Timber, monopoly of 531

Time element in relation to custom 198; dominates problems of value 185—8, 396—7; in "special" and "general" costs 192, 456; in the interests of buyers and sellers 272—4; in railway problems 456—8, in tarif problems 783—4

Time, high value of, a British characteristic 453, 464, 618, 810
Timplate industry, in Britain and

Tinplate industry, in Britain and Germany compared 621-2

Tithes, incidence of 825—6 Tobacco trust 534—6

Tooke, on harvests during French war 750 n.; on sliding scale 752—5 n.; in favour of factory acts 763; on demand for wheat 794

Tosdal, Dr 561 n., 575 n.

Towns, their patriotism and their selfishness 685—6

Trade, its relations to industry 3—4, gain of 18, 253; of Mercantile Age not large 37, 38—9 n.; m early times 682—4

"Trade Corporation," a link between British industry and the investor 348—9

Trade-marks, difficulties with regard to their ownership 301—2 n.; value of in fine cotton and thread industry 403—4, 595—7; in Danish trade 812 (See "Branded" goods)

Trade Unions, their influence on output 103, 137, 352—3, 381, 409, 418—19, 639—42, and standard rates of pay 382—3, 390 n.; and scientific management 390—1; in

relation to cartels 573, 574—5 n.; and national well-being 620—1

"Tramps" 431; their effect on cost of transport 431—3, 437, in grain and coal trades 432—3 n; in relation to "Conferences" 437, 440 n; their extinction deferred 791

Transport III, III—vi, 423; its influence on course of trade 29—31, 40n; and on prices of freely imported goods 627—8; and marketing 251,

goods 627—8; and marketing 251, 276—8, its problems illustrated by ferry traffic 423—6, on land and sea compared 431 n.; early phases of 684—7

Tribunal of Investigation 635

Trusts III, vii—viii, meaning of term 217, 345, 514; and cartels compared 507, 510—11; rise of in US. 511—15, 540 n; Standard Oil 512, 532—4, 541, estimates of their numbers 514—15 n; their dependence on supply of high and rare ability 515, 525, 538; American control of based on thorough studies 516—20; price policies of far-seeing 523—6, Protection and 526, US steel 528—30, Tobacco and other 534—6; and stability of trade and industry 537—40; control of by financial groups 529—30, 540—2, 566; "Money" 541; German tendencies towards 569—70; in Britain 510, 591—8, 621—2, Committee on 510 n, 634—5

Tucker, on English manufacturers 41 n., 727 n, 735 n.

Turgot, on free trade in England
743 n

"Tying" or exclusive contracts 538—7; in relation to questions of deferred rebates 234, 439

Typewriters, advertisement of 305 n —6 n.

"Undertakers," their place in the organization of English industry 47-9, 171-4, 716

United States, growth of her town population 151—2 n., 773 n; economic study in 157; statistics of her farm values 153 n.; conditions approach those of the Old World 157; influence on other New Countries 159, leadership and that of Canada 160; banking system 344—6, 540—3, 566—7; Trusts 217, 511—15, 527—43; control of monopolies 516—22, 531—2, 576; associations in export trade 613—14, protective tarifs 776—84 (See American)

United States Steel Corporation, its

economies 220-1; administration of 364 n., 605; history of 527-32, 605, marketing of 618 n.
"Universal Providers," and early cooperative stores 291, 296

Unwin, Prof. 40 n., 50 n., 707 n., 715 n.,

Ure, on use of the word "manufac-ture" 718 n.

Valuation, difficulties of 333-7 (See Capitalization)

Value II, I; money and social 45-6; its relations to cost 194-6

Vanderbilt, W. H., on controllers of the Standard Oil Trust 534 n. Vanderlint, on Statute of Artificers

738 n

Venice, List's verdict on 688-9

Vertical and horizontal expansion 215-16; in the steel industry 219-21, 528-9, 559-61, 587, 589, m textile industries 230-2; relative advantages compared 587, 589 Vinogradoff, Prof. 705 n., 798 n.

Viscosity and the shifting of taxes 411

Vogelstein, Dr 632

Wages, Marx's theory of 72; in re-lation to net product 72 n.; influence of machinery on 138 n., 168, 213; Protection and 82; "standard rate of" 381-3, influence of scientific management on 383-9; in Germany and Britain compared 853 n., cartels and 573-4n.; effect of Black Death on 705—8; and wheat prices 709 n.; and purchasing power of money 640, 737, 853

Wagner, Adolf, in Kartellen-Enquête debates 547 n.; on nationalization of steel industry 558—9

Walford 39 n., 682 n , 795 n.

Walker, F. A., on Captains of Industry 169; on protection in relation to combination 526 n , and the American census 847—8 n.

War, and economic progress 2, 87—8; effect of French war on landlords and farmers 78, 750—1; and on England's fiscal policy 79-85 (See World-war)

Waste, in retail trade 300; of combative advertisement 305-7; business checks on 366 n, 367, 368-9, 374, of rate-wars 438, in British railway traffic 454—5, 486, 490; in marketing coal 503, 553, 789, of anthracite 531 n.; in State manage-

Water supply, and England's early

trade 702-3; a national problem 786; as a source of electricity 788; its services to industry and trade 790

Watkins 361 n. Way-leaves, influence of 786-7

Wealth, and quality of life 5; and constructive speculation 253; and the work of the promoter 330; and banking "deposits" 339 n.; in re-lation to well-being 527; and rights of property 675; m relation to money 720, 729 Webb, 707 n

Weber, Adolf 343 n.

Weber, Alfred 27 n.

Webster, Jenkinson, on cost accounts 610 n.

Wedgwood, R, on use of ton-mileage statistics 840 n.

Weeden 774 n. Weld 812 n.

Well-being, sacrifice of material wealth to 5, and routine work 152, 388; large and small businesses in relation to 175-7, 249, and monopolistic policies 180, 405-9; and constructive speculation 253, influences of scientific management on 388-94; in relation to sectional interests 394, 620-1; and fall of rate of interest 408; and the price of staple grains 793

Westerfield 50 n.

Westphalian Coal Syndicate 552-6 "What the traffic will bear" 404-461; illustrated by a ferry 425; for valuable freight 430; in relation to Shipping Conferences 435; and to railway traffic 835-6 n.; in retail trade 810

Wheat, trade in 18th century 65, m relation to wages 78, 82; protection and price of 82—3, 749—58; movements in its price after 1849, 83 n.; variations in its price in France 109 n; a pioneer crop in America 144, 775—6; Exchange 258—63; grading of 259 n.; its price in Middle Ages 708—9 n; prices and harvests 750 n , 755-6; trade during first half of 19th century 751-7; price of in various countries 757 n.; inelastic demand for 794; local variations in its price 794-6 (See Grain)

Whitaker, 704 n.
Whitley Report 643-4. 645 n.: in relation to Scientific Management

Wholesale dealers, services of 278-

Williams 473 n.
Wood, and iron in shipbuilding 90
Wool combing, generally worked by
powerful firms 231, 595, 597—8
Woollen and Worsted industries, pioneers in organized transport and
industry 49—51, 579, 703—5, 714—
18; standardization in 56, 231—2,
801—2; decay of in Norfolk 707 n.
Work-Fund 640—1
Working class, and education 4—5,
96—8, 351—3, 636—8, and technical
progress 212—3, 640, 641, 646, 648;
ownership of factories 319—20, and
scientific management 388—94; and
fall of rate of interest 408; and cartels 570—4; and supply of business
power 359, 646, 661—2; and Protection 852—3, and railways 804,
834—5 (See Labour)
"Works Committees" 393

World-war, reveals national need of science 99, 129; its demand on standardization and specialization 224—8, 593, 641—2; in railway organization 491—2; on fiscal policy 519, and wages 641 n, 643 n.—4 n.

Yarranton, on navigation of rivers 40 n Young, Arthur, on large and small farming 52 n.; 61 n; on French servants 115 n; his dietum 751 n., on Settlement Act 737 Youngman, Dr 361 n.

Zeiss works 353—4, 360 n.
Zollverein, Appendix F; in relation
to British Empire 124, in England
and France 742, and German progress 123—4, 768—9

WORKS ON ECONOMICS

By ALFRED MARSHALL

- PRINCIPLES OF ECONOMICS. An Introductory Volume. Eighth Edition. 8vo. 18s. net.
- INDUSTRY AND TRADE. A Study of Industrial Technique and Business Organization; and of their Influences on the Conditions of various Classes and Nations. Fourth Edwion. 8vo. 18s. net.
- MONEY, CREDIT, AND COMMERCE. 8vo. 10s. net.
- ELEMENTS OF ECONOMICS OF INDUSTRY. Being the first volume of "Elements of Economics." Third Edition. Crown 8vo. 4s. 6d.
- OFFICIAL PAPERS BY ALFRED MARSHALL. 8vo. 10s. 6d. net.
- MEMORIALS OF ALFRED MARSHALL. Edited by Prof. A. C. Pigov. With Portraits, 8vo. 12s. 6d. net.

By Prof. A. C. PIGOU

THE ECONOMICS OF WELFARE. Second Edition. 8vo. 30s. net.

INDUSTRIAL FLUCTUATIONS. 8vo. 25s. net. A STUDY IN PUBLIC FINANCE. 8vo.

By J. M. KEYNES

- THE ECONOMIC CONSEQUENCES OF THE PEACE. 8vo. 8s. 6d. net.
- A REVISION OF THE TREATY. Being a Sequel to "The Economic Consequences of the Peace." 8vo.

 7s. 6d. net.
- A TRACT ON MONETARY REFORM. 8vo. 7s. 6d. net. A TREATISE ON MONEY. 8vo.

MACMILLAN AND CO., LTD., LONDON.

Williams 473 n. Wood, and from in shipbuilding 90 Wool combing, generally worked by powerful firms 231, 595, 597-8 Woollen and Worsted industries, pioneers in organized transport and industry 49-51, 579, 703-5, 714-18; standardization in 56, 231-2, 801—2, decay of in Norfolk 707 n. Work-Fund 640—1

Working class, and education 4-5, 96-8,351-3,636-8, and technical progress 212-3, 640, 641, 646, 648; ownership of factories 319—20; and scientific management 388—94; and fall of rate of interest 408; and cartels 570—4; and supply of business power 359, 646, 661—2; and Pro-tection 852—3, and railways 804, 834-5 (See Labour)

"Works Committees" 393

World-war, reveals national need of science 99, 129; its demand on standardization and specialization 224-8, 593, 641-2; in railway organization 491-2; on fiscal policy 519, and wages 641 n, 643 n.— 4 n.

Yarranton, on navigation of rivers 40 n.

Young, Arthur, on large and small farming 52 n.; 61 n , on French servants 115 n; his dictum 751 n.; on Settlement Act 737

Youngman, Dr 361 n.

Zeiss works 353-4, 360 n. Zollverein, Appendix F; in relation to British Empire 124, in England and France 742; and German progress 123-4, 768-9

WORKS ON ECONOMICS

By ALFRED MARSHALL

- PRINCIPLES OF ECONOMICS. An Introductory Volume.

 Eighth Edition. 8vo. 18s. net.
- INDUSTRY AND TRADE. A Study of Industrial Technique and Business Organization; and of their Influences on the Conditions of various Classes and Nations. Fourth Edwion. 8vo. 18s. net.
- MONEY, CREDIT, AND COMMERCE. 8vo. 10s. net.
- ELEMENTS OF ECONOMICS OF INDUSTRY. Being the first volume of "Elements of Economics." Third Edition. Crown 8vo. 4s. 6d.
- OFFICIAL PAPERS BY ALFRED MARSHALL. 8vo. 10s. 6d. net.
- MEMORIALS OF ALFRED MARSHALL. Edited by Prof. A. C. Pigou. With Portraits. 8vo. 12s. 6d. net.

By Prof. A. C. PIGOU

THE ECONOMICS OF WELFARE. Second Edition. 8vo. 30s. net.

INDUSTRIAL FLUCTUATIONS. 8vo. 25s. net.

A STUDY IN PUBLIC FINANCE. 8vo.

By J. M. KEYNES

- THE ECONOMIC CONSEQUENCES OF THE PEACE. 8vo. 8s. 6d. net.
- A REVISION OF THE TREATY. Being a Sequel to "The Economic Consequences of the Peace." 8vo. 7s. 6d. net.
- A TRACT ON MONETARY REFORM. 8vo. 7s. 6d. net.
 A TREATISE ON MONEY. 8vo.

MACMILLAN AND CO., LTD., LONDON.

OTHER WORKS ON ECONOMICS

PALGRAVE'S DICTIONARY. OF POLITICAL ECONOMY. New Edition. Edited by Henry Higgs, C.B. Medium 8vo.

Vol. I. A.-E. 36s, net. Vol. II. F.-M. 36s, net. Vol. III. N.-Z. 36s, net.

- PAPERS RELATING TO POLITICAL ECONOMY. By Prof. F. Y. EDGEWORTH. 3 vols. Super royal 8vo. 50s. net.
- FIRST ESSAY ON POPULATION (1798). By Thomas ROBERT MALTHUS. With Notes by Dr. James Bonar. 8vo. 10s. 6d. net.
- THE STATE THEORY OF MONEY. By G. F. KNAPP. Abridged Edition. Translated by H. M. Lucas and J. Bonar. 8vo. 10s. 6d. net.
- TRUSTS, MONOPOLIES AND CARTELS IN BRITISH INDUSTRY. A Second Edition of "Monopoly and Competition." By Prof. Hermann Levy, Ph.D. 8vo.
- THE FUNDAMENTAL PRINCIPLES OF TAXATION IN THE LIGHT OF MODERN DEVELOPMENTS. (The Newmarch Lectures for 1919.) By SIR JOSIAH STAMP, G.B.E., D.Sc. 8vo. 10s. 6d, net.
- PUBLIC FINANCE. By Prof. C. F. BASTABLE. Third Edition. Syo. 16s. net.
- THE THEORY OF INTERNATIONAL TRADE WITH SOME OF ITS APPLICATIONS TO ECONOMIC POLICY. By Prof. C. F. Bastable. Fourth Edition, revised. Crown 8vo. 4s. 6d. net.
- PRINCIPLES OF ECONOMICS. By Dr. N. G. Pierson.
 Translated by A. A. Wotzel. 2 vols. 8vo. 15s. net
 each.
- PRINCIPLES OF ECONOMICS. By Prof. F. W. TAUSSIG.

 Third Edition. 2 vols. 8vo. 12s. 6d. net each.

MACMILLAN AND CO., LTD., LONDON.