# Contents

| Forewo  | ORD   | v           |
|---------|---|-------------|
| PREFAC  | Peneral   | vii         |
| I REFAC | E   | VII         |
| LIST OF | FILLUSTRATIONS  | XV          |
| List of | F TABLES  | xvi         |
|         |   | PAGE        |
| I.      | THE SOUTH IN 1815   | 1           |
|         | Wasteful Farm Practices Plight of the Tobacco-Growing Areas The Westward Trek | 3<br>5<br>5 |
|         | Cotton Planting in the South  | 7           |
|         | New Lands in the Trans-Appalachian States                                     | 10          |
|         | Land Policies in Kentucky and Tennessee                                       | 13          |
|         | The Lower South and Sugar   | 15          |
|         | Farming in the Newer South  | 20          |
| II.     | Northern Agriculture in 1815  | 22          |
|         | The Land of New England   | 23          |
|         | Land Speculation in New York  | 29          |
|         | Landlordism and Tenancy   | 36          |
|         | Farm-Making in Pennsylvania   | 40          |
|         | Farming in New Jersey   | 46          |
|         | Growth of Ohio  | 47          |
|         | Farming in Indiana, Illinois, and Missouri                                    | 50          |
| III.    | Public-Land Policies  | 51          |
|         | Ohio Enabling Act   | 52          |
|         | Private Land Claims   | 53          |
|         | Surveying the Public Domain   | 54          |
|         | Revenue Land Policy   | 55          |

### CONTENTS

|       | Speculation in Public Land Abandonment of the Credit System | 57<br>63 |
|-------|---|----------|
|       | Bounty Land Acts Growth of Tenancy                          | 65<br>66 |
| IV.   | THE BUSINESS IN LAND: PUBLIC-LAND POLICIES, 1835–1861       | 70       |
|       | Moneylending to Squatters                                   | 72       |
|       | Panic of 1857   | 74       |
|       | Steps toward Free Land                                      | 77       |
|       | Land Speculation in the Fifties                             | 80       |
|       | Absentee Owners   | 85       |
|       | Railroad Land Grant Policies                                | 89       |
|       | Farm Mortgages  | 92       |
|       | Malfunctioning of the Land System                           | 94       |
| V.    | THE BORDER SOUTH: TOBACCO, FLAX, AND HEMP                   | 99       |
|       | Tobacco: A Problem Staple                                   | 100      |
|       | Changes in Farm Practices                                   | 107      |
|       | Principal Tobacco Producing Areas                           | 110      |
|       | Hemp and Flax   | 115      |
| VI.   | RICE AND SUGAR  | 118      |
|       | Rice  | 118      |
|       | Sugar   | 122      |
|       | Economics of Sugar Plantations                              | 126      |
|       | Attempts at Economic Self-Sufficiency                       | 130      |
|       | Buying and Selling of Sugar Plantations                     | 131      |
| VII.  | Cotton  | 134      |
|       | Cotton Planting   | 134      |
|       | Cotton Picking  | 136      |
|       | Farm Management Practices                                   | 138      |
|       | Problems of the Cotton Planter                              | 144      |
|       | Attitudes of the Large Cotton Planter                       | 146      |
|       | Cotton Marketing  | 152      |
|       | The Economics of Slavery                                    | 154      |
| /III. | Grain Farming   | 156      |
|       | Wheat Raising   | 156      |
|       | Transportation Problems                                     | 159      |

|      | CONTENTS   | xi         |
|------|--|------------|
|      | The Geographic Shift in Wheat Farming  | 163        |
|      | Corn Growing   | 169        |
|      | Other Grains   | 172        |
|      | The Trade through New Orleans  | 174        |
| IX.  | Prairie Farming  | 179        |
|      | Deterrents to Prairie Farming  | 180        |
|      | Railroads Open the Prairies  | 183        |
|      | Fencing  | 186        |
|      | Capitalists Invest in Prairie Lands  | 188        |
|      | Farm Laborers  | 196        |
|      |  |            |
| X.   | Livestock  | 200        |
|      | Neglect of Livestock   | 200        |
|      | Imports of Purebred Cattle   | 203        |
|      | Supply of Beef Cattle  | 208        |
|      | Driving Cattle to the East   | 209        |
|      | The Role of the Railroads  | 212        |
|      | Pork in the American Diet  | 214        |
|      | Hog Breeding   | 218        |
|      | Sheep Raising  | 221        |
|      | Use of Oxen  | 227        |
|      | Horse Breeding   | 228        |
|      |  |            |
| XI.  | Dairy Farming  | 232        |
|      | Dairy Breeds   | 232        |
|      | Milk Production  | 234        |
|      | Milk Standards   | 236        |
|      | Railroads Enlarge the Milksheds  | 239        |
|      | Butter and Cheese  | 241        |
|      | Co-operative Cheese Making   | 245        |
|      | Poultry Raising Income of the Northern Farmer  | 246<br>247 |
|      | income of the Northern Farmer  | 241        |
| OEC  | The same of the sa |            |
| XII. | HAY, FRUIT, AND VEGETABLES   | 249        |
|      | The Hay Crop   | 250        |
|      | Growth of the Fruit and Vegetable Industry   | 255        |
|      | Vineyards and Wineries   | 258        |
|      | Growth of the Nursery Business   | 259        |

### CONTENTS

|       | The Value of Orchard and Garden Products  | 261        |
|-------|---|------------|
|       | The Role of the Potato                    | 262        |
|       | Commercial Production of Vegetables       | 267        |
|       | Effect of Cities on Agriculture           | 269        |
| XIII. | LABOR AND FARM MACHINERY                  | 271        |
|       | Farm Labor                                | 272        |
|       | Farm Wages                                | 275        |
|       | Improved Farm Implements                  | 279        |
|       | The Reaper                                | 285        |
|       | Development of Other Farm Machines        | 289        |
|       | Social Effects of Improvements            | 293        |
|       |   |            |
| XIV.  | SEARCH FOR NEW SPECIES                    | 295        |
|       | Introduction of New Crops                 | 296        |
|       | The Role of the Federal Government        | 298        |
|       | Reception of New Varieties by Farmers     | 301        |
|       | The Silkworm Craze                        | 303        |
|       | Other Agricultural Crazes                 | 306        |
|       |   |            |
| XV.   | GOVERNMENT CONCERN FOR THE FARMER         | 312        |
|       | Role of the County Fair                   | 312        |
|       | Agricultural Societies                    | 314        |
|       | Soil Surveys                              | 316        |
|       | State Aid to Agriculture                  | 317        |
|       | Federal Aid to Agriculture: Tariffs       | 322        |
|       | Guano Imports                             | 327<br>329 |
|       | The Patent Office and Agriculture         | 336        |
|       | Creation of the Department of Agriculture | 330        |
| XVI.  | AGRICULTURAL PERIODICALS AND JOURNALISTS  | 338        |
|       | The Almanac                               | 338        |
|       | Weekly Newspapers                         | 339        |
|       | Farm Journals                             | 341        |
|       | Common Criticisms of the Press            | 344        |
|       | Problems of the Press                     | 350        |
|       | Notable Farmer-Writers                    | 353        |
|       | Books on Farming                          | 356        |

|        | CONTENTS  | xiii   |
|--------|---|--|
| XVII.  | Education for Future Farmers  | 358  |
|        | The Movement for Vocational Education Lectures on Science in Agriculture Bequests for Education Development of Agricultural Colleges Government Aid to Education  | 359<br>361<br>366<br>370<br>373                                    |
| XVIII  | New Land and Farm Problems in the Far West  | 383  |
| Pann   | Problems of the Mormons Oregon Territory California   | 383<br>386<br>387  |
| XIX.   | ECONOMIC PROBLEMS   | 398  |
|        | Credit as a Problem Need for Markets Close of an Era  | 403<br>413<br>420  |
| Biblio | GRAPHY  | 421  |
|        | Bibliographies and Guides General and Regional Works Museums Government Publications State Publications Agricultural Periodicals and Journalists Farmers' Guides Travel Accounts Settlement and Economic Development Land Policies and Land Companies | 421<br>423<br>425<br>425<br>425<br>426<br>427<br>428<br>430<br>431 |
|        | Crops: Cotton Grain Hemp Rice Sugar Silk Tobacco  | 433<br>434<br>434<br>435<br>435<br>435                             |
|        | Livestock Agricultural Machinery Marketing Problems   | 435<br>437   |

#### CONTENTS

|        | Food Consumption       | 438 |
|--------|------------------------|-----|
|        | The Role of Government | 438 |
|        | Farm Labor             | 438 |
|        | Agricultural Education | 439 |
| Lamper |                        | 441 |

### *Illustrations*

| Map, "Agriculture in 1860"  | xviii               |
|---|---------------------|
| New York Canal Lands on Sale  | 32                  |
| No Oppression! Justice to the old Settlers!   | 37                  |
| Vendue!   | 38                  |
| Original Land Entries, 1800-1934  | 71                  |
| License to pasture a cow (1829)   | 235                 |
| BETWEEN PAGES 140-141   |                     |
| From pioneering to commercial farming on the Hollan<br>York<br>Circular (1847) urging farmers to buy stock in a rails |                     |
| Land advertising pamphlet distributed by Illinois Centr   | ral Railroad (1857) |
| Plat showing selections of land by Illinois Central Rai<br>Various stages in tobacco growing                          | iiioau              |
| Field hands picking cotton  |                     |
| Gathering sugar cane  |                     |
| Hauling baled cotton to the river landing   |                     |
| Use of the cradle in harvesting grain   |                     |
| Sketch depicting pioneer life as easygoing—according offer (1859)   | to a railroad land  |
| Custom plowmen breaking tough prairie sod   |                     |
| Western prairie farmer running the "Fire Guard"   |                     |
| Grain boats and elevators on the Chicago River  |                     |

### Between Pages 300-301

Butter making by farmers' wives

Progress in hog raising
Invoice of an order for garden seeds (1839)
Directions for making and preserving cider
Pitching fresh hay
Mowing machine, horse-drawn rake, and a hayrack
McCormick reaper of 1851

Advertisement of a thresher, a steam engine, and a si

Advertisement of a thresher, a steam engine, and a small grinding mill

Horace Greeley and Marshall Pinckney Wilder

Machinery Hall, Fifth Annual Exhibition of the United States Agricultural Society (1857)

Cover page of the Prairie Farmer (February, 1846)

An early announcement of the Iowa Agricultural College (founded 1858)

## Tables

| Principal Whiskey-Producing States in 1810                        | PAGE<br>13 |
|---|------------|
| Value of Exports, 1815  | 20         |
| Number and Size of Farms in the Virginia Military Tract in 1860   | 58         |
| Price and Production of Cotton in Mississippi and Alabama         | 60         |
| Lands—Ceded, Surveyed, Offered, and Sold to September 1, 1835     | 72         |
| Acreage of Public Land Entries, 1845–1860                         | 79         |
| Wheat and Tobacco Production in Maryland, Virginia, North Caro-   |            |
| lina  | 109        |
| Tobacco Production in Leading Counties, 1859                      | 115        |
| Growth and Profits of the Louisiana Sugar Industry                | 127        |
| Number, Acreage, and Average Size of Farms, 1850-1860             | 146        |
| Size of Farms in Highest Yielding Counties in Alabama, 1860       | 147        |
| Wheat Yield in Thousands of Bushels and Percentage of Total Crop  |            |
| in Leading States   | 160        |
| Amount and Value of Wheat and Wheat Flour Exported from the       |            |
| United States   | 168        |
| Corn Production in Leading States                                 | 171        |
| Imports into New Orleans from Interior and Exports                | 174        |
| Flatboat Cargo, Indiana to New Orleans, 1826                      | 175        |
| Flatboat Cargo, Leavenworth, Indiana to New Orleans, 1830         | 176        |
| Flatboat Cargo, Cincinnati to New Orleans, 1836                   | 176        |
| Flatboat Cargo, Indiana to New Orleans, 1837                      | 176        |
| Receipts at New Orleans from the Interior, 1848-1849              | 177        |
| Farmers and Farm Laborers in Four Champaign Townships, 1860       | 198        |
| Weekly Consumption at Revere House, Boston                        | 215        |
| Number of Hogs per Capita in Certain Western, Southern, and East- |            |
| ern States  | 216        |
| Livestock Receipts in the New York Market                         | 217        |
| Receipts from the Interior and Exports from New Orleans for Year  |            |
| Ending August 31, 1849  | 220        |
| Value and Number of Livestock per Farm in Four States and in the  |            |
| United States   | 231        |
| Quotations of Butter in New York Market, February 21, 1861        | 243        |
| Value of Orchard and Garden Products, 1859                        | 270        |
| Number of Farms, Farmers, and Farm Laborers as Shown in the       |            |
| Census of 1860 in Principal Northern States                       | 273        |
| Employment Make-up of the New York House of Representatives,      |            |
| 1850  | 381        |
| Status of Farming in Washington and Oregon, 1860                  | 387        |

## Index

Absentee ownership, in Deep South, 121 Agricultural press (continued) discrimination against, 87 advice of, 343-344 exaggerated staple crop evils, 133 characteristics of, 341-353 fads and follies of, 347-348 on sugar plantations, 129 Western attitude toward, 85-88 numbers, 343 Acadians, early settlements, 16, 19 slight attention to women, 348-349 planters contempt for, 127-128 Agricultural societies, growth of, 314small holdings of, 53-54 315 Adams, John Q., on Patent Office Report, transactions of, 314-315 331 Agriculture, affected by urban growth, opposed national university, 367 Addison County, Vt., horse center, 229 Department of, movement for, 336-337 sheep center, 224 Agriculture, pioneer, in Indiana and Il-Affleck, Thomas, farm journalist, 353 linois, 50 Agrarianism, in California, 392 in Kentucky, 12-13 directed at absentee owners, 86 in New York, 2, 8, 33 directed at Pulteney estate, 37 in Ohio, 48 Home League, 93 in Tennessee, 13 in Pennsylvania, 41 Ague, on prairies, 181 promoted by land speculation, 85 Aimé, Valcour, large sugar planter, 123 stay laws, 92 Alabama, cattle in, 205-206 Agricultural colleges, movement for, 359, early attractions of, 7 land speculation in, 59-63, 81 Agricultural education, beginnings of, 370 large plantations in, 147 at Oberlin, 360 purebred livestock in, 205-206 at University of Georgia, 370 tenancy in, 15 at University of North Carolina, 370 Albany, N.Y., market fair, 414 Agricultural fairs, criticism of, 315 Albany Cultivator, argued for protection, races at, 315 348 Agricultural humbugs, 302 major farm journal, 342 Agricultural labor, costs, 269 Alcorn, James L., large land purchases Agricultural machines, and commercialof, 141 ization of agriculture, 293 Alexander, John T., cattle feeder, 211 and costs of farm making, 293 Allen, A. B., editor, American Agriculpatents on, 290-291 turist, 351 prizes for improvement of, 292-293 farm machinery business of, 351 reluctance to buy, 291-292 Allen, Lewis, Herdbooks, 205 value of, 291 Allston, Robert F., on improved farm Agricultural Museum, early farm journal, tools, 135 Allston, Thomas, rice planter, 120 Agricultural press, advertising in, 350-Almanacs, farmers, 338 351 Altamaha River, rice plantations, 118

American Agriculturist, major farm paper, on agricultural education, 359 on government seed distribution, 332 questioned Morrill bill, 376 American Institute, and silk craze, 305 American Land Company, investments of, American Pomological Society, 262 Amherst College, agricultural chemistry in, 360 Andrews, Israel D., report of, 161 Apples, English imports of, 258 varieties, 256 Arks, carried wheat on Susquehanna, 35 Artesian wells, and irrigation, 395 Ashe, Thomas, on prices of farm goods, 49 Assessments, higher on absentee owned land, 86n Ayrshires, breeders, 207

leading dairy breed, 233

Baldwin, Thomas, introduced new species, 297
Baler, hay, 289
Baltimore, investigation of milk supply, 239
Bank of United States, Second, and land speculation, 57
Banks, expansion of note circulation, 408
Banks, Nathaniel P., pressed fight vs. pleuropneumonia, 318
Barley, used in breweries, 173
Barney, W. J., land for sale, 83
Bartram, John, botanist, 298
Bartram, William, botanist, 298
Bateham, Mrs. M. B., on women's labor, 342

Beale, Edward F., 389
Beatty, Adam, agricultural authority, 116
Bell, John, bought land of United States,
141
supported Morrill bill, 376

Bibb, Thomas, land speculation of, 63 Bibb, William, land speculation of, 62 Bingham, A. L., sheep breeder, 225 Bingham, William, Pennsylvania land speculator, 42

Birkbeck, Morris, settlement promoter, 188–189 Bisland, William, Mississippi planter, 141
Black Hawk, famous stallion, 229
Black stem rust, on wheat, 163
Blanding, Abram, southerner, invested in North, 407
Blight, potato, 264–266
Bluestem grass, on prairies, 181
Bond, Joseph, extensive cotton planter, 147
Borden, Gail, milk condensing plant, 240–241
Boré, Etienne, improvement in sugar

manufacture, 17
Boston, investigation of milk supply, 239
milk adulteration in, 237
Boston and Indiana Land Company, 82
Boston and Mississippi Cotton Land Company, 82

Boston and New York Chickasaw Land Company, 82

Boston and Western Land Company, 82 Boston Common, cows pastured on, 235 Boston Cultivator, condemned slavery, 348

Brahan, John, receiver, speculations of, 60-61

Brahman, importation of, 208 high price of, 208n

Breck, Joseph, cautious farm editor, 356 opposed controversial writing, 354 proprietor, agricultural warehouse, 351

Brent, Thomas L. L., southerner, invested in North, 407

Breweries, dairies associated with, 237 Bridport, Vt., horse center, 229

Bright Tobacco Belt, 111

Brown, Amos, favored Morrill bill, 379 Brown, J. H., large cotton production of, 147n

Brown, Thomas, Shorthorn advocate, 352 Browne, Daniel J., Commissioner of patents, criticism of, 333

jealous of subordinates, 334

removed, 334

seed collection in Europe, 300, 307 books of, 356

Buchanan, James, ordered land sales in depression, 75 vetoed homestead bill, 79 vetoed Morrill bill, 379–380

Buckwheat, 173

Buel, Jesse, agricultural editor, 342 favored agricultural education, 359 on government aid to agriculture, 336 Buffalo, buyers in, 413 wool depot, 415 Burke, Edmund, Commissioner of Patents, Burlington and Missouri Railroad, swamp land dispute, 95 Burnham, George, poultry fancier, 309-Burnside, John, sugar planter, 126 Bussey, Benjamin, fund for botanic

Butter, grades of, 243 making, 241 marketing of, 241 Orange County the best, 242

studies, 361

Cabel, Landon R., southerner invested in North, 407 Caird, James, settlement promoter, 185 Cajuns, see Acadians Calhoun, John C., on protection, 21 spokesman for southern crops, 22 California, cattle business, 393 drainage of tule lands, 395 irrigation, 394-395 land claims, 388-389 large grain farms, 394 preemption on unsurveyed land, 391size of farms, 396 squatters on land claims, 390 title confusion, 392 California Farmer, 343 Calvert, Charles, dairy farms, 111 rotation of crops, 109 Canals, connect lakes with Ohio, 182 reversed trade routes, 174-176 Capitalists, invested in prairies, 188-193 Carroll, Charles H., landed proprietor, 31 tenants of, 39 Cary, F. G., on Morrill bill, 379 struck at Buchanan's veto, 380 Case, J. I., thresher manufacturer, 283

factory in Racine, Wisc., 288 Cattle, beef, distribution of, 208-209 business, in California, 393 dairy, see Dairy Cattle

Cattle (continued) driven to East, 209-212 feeders, business of, 210-211 on prairies, 193 in Southeast Pennsylvania, 45 on Louisiana prairies, 19-20 neglect of, 200-201 purebred, importation of, 203 weight loss on eastern drive, 210n Champlain Valley, prosperous farms in, Chapman, John, 253 Charleston, S.C., marketing center, 413

Cheat, nuisance of, 157 Cheese, factories, 246 made by cooperatives, 245-246 making, 243 production of, 244 Cheese press, 291

Chemung River, transportation on, 35 Chenango River, transportation on, 35 Cherokee Neutral Tract, anti-landlordism on, 93

Chesapeake and Ohio Canal, 113 Chess, nuisance of, 157 Chester hog, American breed, 219 Chicago, investigation of milk supply, 239 markets, 413 wheat center, 162-163

Chicago Board of Trade, grades of, 163 Chicago Tribune, agricultural column in,

Chickasaw, allotments, speculation in, 81 Chillicothe, marketing center, 415 Chinese sugar cane, excitement about, 307

Chinese yam, introduction of, 300 Choate, Rufus, opposed national university, 367

Chocchuma, land sales at, 81 Cholera, slave deaths from, 128 Church, William, gentleman farmer, 31 Cider, production, 255

Cincinnati, investigation of milk supply, 239

marketing center, 413 meat packing in, 215

Cincinnati, Peru and Chicago Railroad, 83

Cincinnatus, favored Morrill bill, 378 Cities, growing market for cattle, 209

Claiborne, John, on markets for cotton, 324 Claiborne, W. C. C., quoted, 17 Claim associations, at Huntsville sale, 60policed auction sales, 67 tolerated speculative purchasing, 72 Clark, Daniel, 17, 131 Clark, William, investment in sugar country, 105 Clarke estate, land rentals, 39 Clay, Cassius, Shorthorn breeder, 206 Clay, Henry, Hereford importer, 203 protectionist, 21 spokesman for southern crops, 22 Cleveland, wool depot, 415 Cleveland Plain Dealer, agricultural column in, 341 Cloud, Noah B., agricultural reformer, 145, 353 on Morrill bill, 377 Clover, from England, 251 on Pennsylvania German farms, 43 Coastal plain, agriculture in, 3-4 Cobb, Williamson R. W., 407 Cobden, Richard, 185 Cockleseed, 157 Coffee, John, land speculation of, 61 Coler, W. N., land agent, 83n Collamer, Jacob, supported Morrill bill, 376 Colman, Henry, European Agriculture, 355 farm writings, 354 on wages of farm labor, 269, 271, 275-Columbus, land speculation at, 81 Combahee River, rice plantations, 118 Compost, use of, 347 Conestoga wagon, for hauling wheat, 159 Connecticut, farm land values in, 29 Connecticut Land Company, interest in Ohio, 47 Connecticut Valley, prosperous farms in, Cook and Sargent, Iowa banking firm, 74 land for sale, 83 Cooper, William, landed proprietor, 31 Cooperatives, cheese, 245

woolgrowers, 414-415

tobacco farmers, 415

cultivation of, 170 harvesting of, 170 leading states, 171 New Orleans trade, 174 prairie soils, 172 uses of, 169 yield in Virginia, 4 Corn Belt, emergence of, 199 hog production in, 219 Corn planter, 289-290 Corning, Erastus, land business of, 82 Cotton, and soil erosion, 142 crops, 145 early centers of, 19 expansion of planting, 1815, 8 fear of foreign competition, 324 inspection laws, 319 long staple, centers of, 134 primitive farm practices in, 135 marketing, 152 picking, 136-137 prices, 143 prices and land speculation, 60 prices and production, 59 problems of, 144 sea island, where cultivated, 142 seed improvement, 301-302 size of farms, 146-147 upland areas of, 136 Cotton gin, improvements in, 136, 283 Cotton plantations, assembling of, 140small portions cultivated, 141 Cotton planters, efforts at self sufficiency, Cotton press, improvements in, 283 Cottonseed, improvements in, 301 use of, 152 Cottonseed meal, dairy feed, 234 Country Gentleman, 342 Craven, Avery, on agricultural improvement, 109 Credit, expansion of, 408 farmers' major problem, 403 government, abandoned in land sales, 63 on government land sales, 56 New England Farmer on, 405 permitted farm improvement, 412 storekeepers provided, 404

Corn, chief southern staple, 99-100

Creeks, allotments, speculation in, 81 resisted white penetration, 10 Croom, Isaac, large Alabama planter, 147n Crop liens, 97–98 Cushing, John P., farm operations of, 313

Dabney, Thomas, moved slaves to Mississippi, 105
Dairies, associated with distilleries, 237
Dairy cattle, fed distillery slop, 237
late development of, 232
in Maryland, 111
Dairying, butter making, 241–242
cheese making, 243

effects of railroad building on, 239
Danville, Va., tobacco manufacturing center, 104

Darby, William, planter, 16
Davis, David, prairie landlord, 194–195
De Bow, J. D. B., on Connecticut farms,
114

De Bow's Review, called for agricultural improvement, 139

on Chinese sugar cane, 307 disliked government aid to agriculture, 332

Deere, John, inventor of steel plow, 181, 281

Delta, fast growing cotton economy, 19 large plantations in, 147

Demaree, Albert L., author, American Agricultural Press, 343

d'Estrehan, Jean Noel, sugar planter, 17 Devon cattle, popularity of, 207, 233 Diaries, planters, use of, 138 Dickinson, Rodolphus, author, 28 Dickson, David, agricultural innovator,

Distilleries, dairies associated with, 237 Dix, Dorothea, land grant bill of, 375 reformer, 374

Dogs, killers of sheep, 226
Dorking, English fowl, 209–311
Downing, Andrew J., landscape architect,
357

Drainage, in California, 395 need for, 199 in New York, 290 problems on prairies, 182 Drills, in Middle West, 285
introduced, 157
Drovers, cattle, 13, 210
Dunbar, William, large cotton planter, 18
Duncan, Stephen, cotton planter, 147–
148
household slaves of, 154
lands of, 141
stock ownership of, 407
sugar planter, 133
Dunlap, M. L., agricultural writer, 341
Dwight, Timothy, 24
Dysentery, on prairies, 181

Easley, James S., extensive money lender, 74 foreclosures, 75

land speculation, 81–82
Eaton, Amos, geologist, 317
Edisto River, rice plantations, 118
Edwards, Ninian, upheld credit sales, 64
Elgin Botanic Garden, in New York, 298
Ellsworth, Henry L., Commissioner of
Patents, advocated national uni-

versity, 367
Annual Reports of, 331
collected agricultural statistics, 330
land business of, 96n
prairie landlord, 190–192
seed distribution, 299–300

Ellwanger and Barry, nursery firm, 259 English capitalists, invest in prairies, 188– 189

English Prairie, settlement on, 188 Entomology, New York begins work in, 319

Erie Canal, effect on transportation costs, 159

reversed trade routes, 174 stimulated construction elsewhere, 113 Erie Railroad, enlarged New York milkshed, 239

hauled milk to New York, 239 transportation of cattle, 212–213

Erosion (see Soil Erosion)

Erwin, Joseph, dealt in sugar plantations, 132

Evans, George Henry, land reformer, 76 Evans, John, 195 Evans, Paul, on Pennsylvania squatters,

41

Evansville, Ind., marketing center, 415 Everett, Horace, 195 Exports, 1815, 20

Factors, cotton, 413 friction with planters, 153 Fairs, patronized by gentry, 312-313 Faneuil Hall, market in, 267 Farm homes, impermanence of, 399-400 Farm implements, improvements in, 279 Farm labor, English, compared with American, 278-279 numbers, 196-197, 272-275 proportion of in farm population, 95 scarcity of, 274 wages, 275 in West, 95, 197-199 Farm machinery, corn shellers, 290 farmers' reluctance to buy, 290 patents on, 290-291 prizes offered for improvements in, 292-293 reapers, 285 steam powered gins and presses, 283steam powered grinding mills, 284 steam powered rice threshers, 284 threshers, 288 value of by states, 291 Farm making, and capital creation, 398-399 costs of, 34 Farm mortgages, in New York, 410 in politics, 93 stay laws, 92 Farm practices, improvements in Vir-

ginia, 107–109
on cotton land, 142
on rice plantations, 120–121
on sea islands, 135
on small vs. large plantations, 138
with upland cotton, 136
wasteful, 3

Farm values, profits in rise of, 403 Farmers, basic attitudes, 2 diversification of, 247–248 improvements in life of, 418–419 in New York legislature, 381 not attached to land, 400 political influence of, 381–382 Farmers' Cabinet, refused advertising, 350 Farmers' College, Cincinnati, 371 Farmers' High School, of Pennsylvania, 371

Farmers' Register, 341–342 on agricultural humbugs, 302 on destructive tillage, 101

Farming in New England, distorted picture of, 23 diversification, 26 land values, 29

livestock, 27 rich valleys, 25

Fearon, Henry, on Ohio farmers, 49 on Pennsylvania German farms, 44 Featherstonhaugh, George W., geologist, 317

Fencing, difficulties on prairies, 186 wire and board, 188 Fertilizer, frauds in, 363–366 in tobacco culture, 103 (See also Guano)

Fessenden, Thomas G., agricultural writer, 356

Fitch, Asa, New York entomologist, 319 Fitzhugh, William, gentleman farmer, 31 land rentals, 39

Flail, late use of, 119n, 157, 288
Flatboats, farm products on, 175–176,
221

number at New Orleans, 175n on Ohio, 49

Flax, in Kentucky and Tennessee, 15 production, 117

Fleischmann, Charles L., advocated national university, 367, 370 on purebred sheep, 223

Flour, in New Orleans trade, 174 inspection laws, 320

Flour mills, location, 159

Flower, George, settlement promoter, 188–189

188–189
Fonda Patent, in New York, 39
Fordham, Elias P., 188
Foreclosures, after Panic of 1857, 75
Forest, destruction of, 3
Fox and Wisconsin Improvement Company, 82

Franklin, Isaac, extent of plantation activities, 148 Franklin, Isaac (continued)
method of assembling plantation, 141n
Free land, demanded by West, 77
in Oregon, 386
French Canadians, Illinois Colony of, 198
Fruit growing, centers of, 255–257
in South, 260
value of, 261
Fuller, George, 83n
Fulton Market, 268
Funk, Isaac, prairie cattleman, 193
prairie groves of, 180n
Galloway, Andrew J., land business of,

Galloway, Andrew J., land business of, Garden products, value of, 261 Garrels, J. E., 83n General Land Office, in charge of public lands, 54 Genesee country, landlords in, 39 rush of settlers to, 30 Gentlemen farmers, defense of, 314n imported purebred livestock, 315 promoted fairs, 312-313 Gentry, Richard, 195 Geological surveys, states begin, 316-317 George, Henry, learned from California land squabbles, 392 precursors of, 85 Georgia, cotton inspection laws, 319

Georgia, cotton inspection laws, 319
destructive farm practices in, 142–143
extent of rice country in, 118
land disposal in, 9–10
neglect of cattle in, 201
sea island cotton in, 134
slight interest in purebred stock, 205
subsidized silk production, 303
Germans, increased demand for potatoes,
266
Germany, source of hired labor, 274
Gilchrist, Malcolm, money lender, 62

Goshen butter, 242
Government, aid to agriculture, 317
Gowen, James, 360
favored Morrill bill, 379
Graduation Act, 78
Grain drills, in Middle West, 285
Grain farming, and landlordism, 173
Granger movement, precursors of, 93

Gillett, John Dean, 193

Glaciers, effects of, 180

Grapes, centers of, 258 grants for growth of, 297 Gray, L. C., on size of Kentucky grants, Grayson, William J., investments in North, 407 Greeley, Horace, on credit costs to farmers, 409 disliked Patent Office reports, 333 emphasized agricultural news, 340-341 land reformer, 76 opposed land speculation, 81 trustee, People's College, 372 Greene, John S., land agent, 83n Greig, John, 23 Gridley, Asahel, moneylender, 411 Gridley and Helm, land agents, 83n Grigg, John, land business of, 189-190 Gristmills, distribution of, 158 tolls, 158 Guano, in agricultural reform, 144 and American imperialism, 328-329 in American-Peruvian relations, 328 commercial mixtures of, 346 imports of, 327 inspection laws, 321 on tobacco land, 108

Hairston, Samuel, greatest tobacco planter, 100 Half Breed Tract, squabbles over titles, 82, 95 Hammond, Edwin, sheep raiser, 225 Hampton, Wade, absentee owner, 132 sugar planter, 17 Hannibal and St. Joseph Railroad, land grant to, 184 promoted settlement, 185 Haraszthy, Agoston, California vineyardist, 396 Harlan, James, supported Morrill bill, 376 Harlem Railroad, hauled milk to New York, 239-240 Harper's Weekly, 341 Harris, Benjamin, 211 Hay, dependence on, 254-255 markets, 252 mowing machines, 251 prices, 252-253 production costs, 253 production methods, 250-251

Hay (continued) South imported, 249 timothy, 251 Hayward, John S., land agent, 83n Helper, Hinton Rowan, critical of southern agriculture, 249 Hemp, government purchases of, 326in Kentucky, 15 production, 116 used for cotton bagging, 117 Hen fever, 309 Henry, Joseph, Director, Smithsonian, on weather studies, 379n Herefords, importation of, 203 Herkimer County, cheese center, 244 Hessian fly, damages of, 163 in New York, 35 in Virginia, 4 Heyward, Nathaniel, large rice planter, 120 Hired man, 196 Hog cholera, losses from, 221 Hogs, distribution of, 216 importations of purebreds, 219 improved breeds, 218-219 railroads carried to New York, 219-220 razorback, 217 slaughtering, 221 Holland Land Company, alien land company, 33 cattle droves of, 45 Pennsylvania lands of, 41 promoted settlement, 27 purchasers of, 36 Holstein cattle, dislike of, 207 Homestead, on buying farm machines, 291 urged use of hired labor, 272 Homestead exemption, Solon Robinson on, 344 Hookworm, 14 Hornby estate, agrarian opposition to, 37 Horse fork, 289 Horse sweeps, 293 Horse treads, 293 Horses, breeding practices, 228 distribution of, 231 Kentucky, center of, 228

(See also Morgan horses)

House Committee on Agriculture, 322 Hovey, Charles Mason, editor, 260 Howard, Harrison, supported vocational education, 368 Hubbard, David, land advertisement of, Huntsville, land sales at, 60-62 Hussey reaper, 286 Hyde Hall, 23 Illinois, cattle in eastern markets, 213 corn growing in, 171 farm produce marketed in South, 174hogs in, 195 major hog raising state, 219 Normal University, 369 railroad farm mortgage in, 186n rapid growth of, 185 speculators' land in, 80-81 Illinois Central Railroad, construction pushed, 91 forfeited land contracts, 410-411 land grant, 89, 184 promoted settlement, 185 sales policies, 90 Illinois Land Company, 83n India, cotton in, 324n Indiana, cattle in eastern markets, 213 corn in, 171 farm produce marketed in south, 174major hog raising state, 219 small land purchases in, 56 soil deterioration, 168 Indians, land rights of, purchased, 52 Indigo, 7, 16 Inspection laws, criticism of, 321 in cotton packing, 319 tobacco, 320 Interest rates, in South and West, 409-Internal improvements delayed in South, 113 Iowa, agrarian experiments of, 85 farm laborers in, 197 growth of, 185 speculators' land in, 80-81

stay law, 92

371

Iowa State Agricultural College, founded,

Ireland, potato blight in, 265-266 source of hired labor, 274 Irish, increased demand for potatoes, 266 Irrigation, in California, 394-395 in Utah, 384

Jackson, Andrew, land speculation of, 61 James River and Kanawha Canal, 113 Jaques, Samuel, famous dairyman, 223-

Jarvis, William, sheep imports of, 222 Jefferson, Thomas, on agricultural decline, 5, 104

on deterioration of livestock, 202 on expendability of land, 101 warned against soil losses, 101

Jenkins, John C., Natchez planter, 409 picked cotton over four months, 136n slave deaths from Cholera, 129n Jersey cattle, attitude toward, 207

Jewett, Solomon W., sheep importer, 223 Johnny Appleseed, 255

Johnson, Samuel W., on fraud in fertilizers, 363-366

Johnston, James F. W., on farm wages, 277-278

lecture tour, 361-362

on support of agricultural education,

urged farm improvement, 292 writings of, 356-357

Johnston, John, advocated tiling, 353-354

agricultural experimenter, 164 Jones, George W., disliked government in agriculture, 379

Judd, Orange, 342, 364n Julian, George W., land reformer, 76

Kankakee Valley, large estates in, 97 Kansas, drought in, 75 farm laborers in, 197 land speculation in, 84 premature opening of, 95 surveys in, 79 title confusion, 95 Kelchum mower, 289 Kelly, Hall Jackson, 386 Kemble, Fanny, on soil depletion, 135

Kendall, Edward A., travel author, 29

Kennicott, John A., horticultural editor, 341, 389 Kent, Alexander, 193

Kent, Phineas, 193

Kentucky, beef cattle in New York, 220

hemp plantations in, 116 inspection laws, 320 large grants in, 11-12 led in horse breeding, 228 major hog raising state, 219 mixed farming in, 12 Shorthorn center, 205

size of farms in, 115 supported agricultural society, 314 tobacco in, 114-115

Kentucky bluegrass, superiority of, 251 Kentucky Bluegrass Region, intensively developed, 401

King, William R., cotton planter, 141 "King Cotton," Helper on, 249

Kirkland, Mrs. C. M., Forest Life in Michigan, 216

Klippart, John H., wheat authority, 168 Klose, Nelson, on plant introductions, 300 Kohl, J. G., settlement promoter, 185

Labor, farm, machine displacement of, 166, 287

on prairie railroads, 196

scarcity of, 165

wages on prairie railroads, 196 Lancaster County, intensively developed, 401-402

richest in United States, 111, 401 wheat production of, 44-45, 161

Land agents, 72 Land grants, to railroads, 183-184

Land policies, Federal, 51-68 bounty acts reduced land costs, 77 Cash Sale Act, 1820, 64 cession favored by West, 66

credit, 58, 63 Graduation Act, 78 land withdrawals, 91 military bounty land acts, 65 no limits on purchase, 84 permitted large engrossment, 56 pre-emption acts, 1790-1840, 67 produced title confusion, 94

railroad land grants, 89

sales for revenue, 55

Land policies, Federal (continued) sales in depressions, 75 speculation in fifties, 80-88 surveying, 54-55 Swamp Land Act, 78 Land policies, Georgia, 9-10 Kentucky, 11 New Jersey, 46 New York, 29 Pennsylvania, 40-41 Tennessee, 13-14 Land reform, leaders of, 76 Land speculation, bank circulation and, cotton boom fosters, 60 Huntsville, Ala., 61 in fifties, 80-88 New York, 29-30 peaks of, 70 Virginia Military Tract, 59 Western Pennsylvania, 41 Land speculators, denounced, 85-86 their lands plundered, 87 fought assessments, 88 Landed gentry, in New York, 31 in Ohio, 49 style of living, 39 Landlookers, 55 Landlordism, and grain farming, 173 in New York, 36-40 opposition to, 36-37 prairie, 190-195 Lands, school, donation of, 52 Lawrence Scientific School, founded, 361 Leases, farm, rental charges, 97 Lee, Daniel, editor, Southern Cultivator, Leghorns, poultry from Spain, 310 Lewis and Clark, scientific results of, 296 Lexington, Ky., marketing center, 415 Lima bean, imported, 298 Lincklaen, John, on Yankee restlessness, Linseed oil, flax raised for, 117 Livestock, deterioration, 202 neglect of, 200 number, per farm, 231 railroad destruction of, 417n results of good breeding, 393n Lobos Islands, guano deposits of, 328 Longhorns, in New York market, 214

Longworth, Nicholas, land business of, 58
vineyardist, 258
Loose, Joseph B., southerner investing in North, 407
Louisiana, cattle in, 19–20, 201
inspection of meat packing, 320
tobacco inspection laws, 320
Louisville, Ky., marketing center, 415
Lowell, John, patronized fairs, 313
Lumber, need for in prairies, 180
Lyman, Theodore, 361
Lynchburg, Va., tobacco manufacturing center, 104

McCormick, Cyrus, credit sales, 408 opposition to patent extension of, 286reaper, 286-287 McCoy, Joseph G., cattle drover, 211 McDonogh, John, confirmation of land claims, 17, 53, 132 McMaster, Guy H., New York historian, Mackay, John, hog breeder, 219 Macomb, Alexander, New York speculator, 30 Madison, James, distressed by agricultural decline, 5 Madison County, Alabama, slaves in, 19 Magazine of Horticulture, 260 Maine, blight in, 264 bounty on wheat, 317 oxen, 227 potatoes, 263 Malhiot, E. E., Illinois landlord, 97 Louisiana sugar planter, 407 Manning, J. L., large sugar planter, 126 Manny reaper, McCormick competition, Mapes, James J., contemporaries on, 352n Editor, Working Farmer, 251-252

Mapes, James J., contemporaries on, 352n Editor, Working Farmer, 251-252 guano adulteration of, 351-352 Maple sugar, on northern farms, 26 Marietta, O., marketing center, 415 Mark, David, prairie landlord, 197 Market Fairs, 44 Marketing, cooperative, 414-415 cotton, 152-153 tobacco, difficulties of, 104 Markets, varieties of, 413

Marshall, Levin R., Natchez cotton planter, 147 Maryland, agricultural decline in, 4-5 agricultural revival in, 108 appointed first agricultural chemist, 317 subsidized silk production, 303 Massachusetts, and hen fever, 309 dairy cattle in, 233-235 forbade milk adulteration, 239 part in silk craze, 303 pleuropneumonia, 318 State Board of Agriculture, 314 wheat bounty, 317 Massachusetts Horticultural Society, experimental garden, 262 Maud, John, on New York Military Tract, Meadow Fescue, introduction of, 300 Meat packing, centers of, 221 inspection laws, 320 Merchants, as farm creditors, 404 Merino sheep, fine wooled, 222-223 importation of, 222-223 inferior for mutton, 225-226 Vermont excelled in, 225 Merrimack Valley, 28 Messenger, famous stallion, 228 Miami Indians, well paid for lands, 53 Michigan, speculators' land in, 81 Michigan Agricultural College, 371 Michigan Central Railroad, and reversal of trade routes, 174 Michigan Southern Railroad, and reversal of trade routes, 174 Middlemen, and farmers, 414 Middlesex Canal, 28 Midge, wheat pest, 35, 163 Migratory labor, 96 on wheat farms, 165 Migratory workers, in haying season, 251 Military bounty land, 65 Military bounty tracts, land speculation in, 65 Military bounty warrants, land office money, 77 Military Tract, Illinois, 65 confusion in titles, 94 New York, speculation in, 30 Milk, adulteration of, 236-237 condensed, Gail Borden's plant for,

Milk (continued) 240-241 contaminated, death rate from drinking, 239-240 demand for pure, 238 from diseased cattle, 238 from distillery dairies, 237 low production of, 234 price limited demand for, 235 regulations concerning, 239 sales in cities, 235 standards of, 236 transportation difficulties, 235 Milksheds, railroads enlarge, 239 Millauden, Laurent, Louisiana planter, suffered levee break, 126 Milwaukee Corn Exchange, standards of, 183 Minnesota, wheat hauling, 161 Minor, William J., heavy mortality of slaves, 128 sugar planter, 132 Missions, California, irrigation, 394 Mississippi, cotton inspection laws, 319 land speculation in, 59-60, 81 slight interest in purebred stock, 205 Mississippi River, commerce on, 45, 174-Missouri, beef cattle in New York, 220 railroads in, 184-185 rapid growth of, 185 supported agricultural society, 314 tenancy in, 96n Mitchell, Samuel Augustus, author prairie guidebook, 189-190 Mix, James, land agent, 83n Mobile, Ala., markets, 413 society, 16 Molasses, consumed on plantations, 123 Moneylenders, cooperate with squatters, extent of operations, 74 foreclosures, 75 prairie, 194 terms of, 73, 92 Monroe, James, distressed by agricultural decline, 5 Moore, Clifton H., prairie landlord, 194-Moore, D. D. T., farm journalist, 342

Moore, John Hebron, on cotton breeding, 302

Moore's Rural New Yorker, 342 Morgan horses, best known breed, 229 on New England farms, 27

Morgan, Justin, famous stallion, 228 Morgan, Richard P., land business of, 83

Mormons, developed in Utah, 383 irrigation work, 384

progress of agriculture, 385

tithing houses, 385

Morrill bill, Buchanan vetoed, 379–380

farm journals on, 378 land grants for colleges, 376 lobbying for, 377–379 reintroduced, 1862, 380

Morrill, Justin S., land grant bill, 376 responsibility for agricultural colleges, 380n

Morris, Lewis G., cattle importer, 204, 207

Mortgages, extent of, 410

farm, 92–93 on farm purchases, 406

foreclosures, 410

in New York, 410

New England Farmer on, 412

reasons for, 405

on sugar plantations, 407

Morus Multicaulis, farm editors

Morus Multicaulis, farm editors' interest in, 306

speculation in, 304-305

United States brochures on, 322

Mosquito, disease carrier, 181

Mt Airy Agricultural College

Mt. Airy Agricultural College, 360 Mowing machine, improvements of, 289

introduced, 251 Mulberry trees (see *Morus Multicaulis*)

Mules, distribution of, 230–231 Muskingum Valley, tenancy in, 173

Mutton, sheep, 226

Nashville Basin, 13
Natchez, aristocracy in, 16
cotton center, 18
growth of plantations, 19
New Britain, Conn., markets, 414
New Brunswick, survey of, 362
New England, blight in, 264–266
farming in, backwardness of, 28
distorted picture of, 23

New England (continued)

diversification, 26

livestock, 27

potatoes, 263

richer valleys, 25

New England Farmer, puffed humbugs, 351

New Hampshire, bounty on crows, 319 oxen, 227

potatoes, 263

New Jersey, land policies, 46

land values, 47

subsidized silk production, 303

New Orleans, buyers, 413

meat trade, 220

society, 16

tobacco market, 114

trade through, 174-177

New Orleans Picayune, opposed reopening slave trade, 155

Newspapers, farmers, 339-340

New York and Boston Illinois Land Company, 82

New York and Harlem Railroad, milk carrier, 240

New York and Mississippi Land Company, investments of, 82

New York Central Railroad, cattle transportation, 212–213

attention to livestock, 212n

New York City, distilleries and breweries, 238n

meat consumption, 216-217

New York Land Company, 82 conflict with squatters, 95

New York, Mississippi and Arkansas Land Company, investments of, 82

New York State, agrarianism, 37 barley and rye in, 173 competition for land buyers, 33 flour inspection laws, 320 frontier mansions, 39 land speculation, 29–30 land values in, 45–46 landed gentry, 31, 39 landlords in, 36

leading fruit state, 262 leading hay state, 254

pioneering in, 34-35

potatoes in, 263

New York State (continued) settlement of, 29-40 supported agricultural society, 314 transportation problems in, 35 New York State College of Agriculture, established, 372 New York Times, agricultural column in, opposed Morrill bill, 378 New York Tribune, agricultural news in, circulation of, 343 on driving livestock, 213 North Carolina, emigration from, 7, 114 farm practices in, 6-7 tobacco inspection laws, 320 tobacco production, 109 Norton, John P., lectures on agricultural science, 362-363 Nursery business, 257 benefitted from plant importation, 297 frauds in, 261 growth of, 259-260 itinerant salesmen, 261 leading firms, 259 Nuttall, Thomas, 17

Oats, livestock feed, 172 northern grain, 173 Occupying tenants' rights, 65 Ogden, David A., land speculator, 31 Ogden, William B., on wheat in Chicago market, 161 Ohio, farming in, 47-48 farm produce marketed in South, 174fruit in, 262 inspection of meat packing, 321 leading hog state, 219 sheep in, 227 small holdings in, 58 tenancy in, 173 Ohio Cultivator, 342 on women's work, 348 Ohio Enabling Act, land donation of, 52 Ohio Farmer, 342 on women's tasks on farm, 348 Ohio River, commerce on, 45 Olcott, Henry S., author, 307 editor, 365

Olmsted, Frederick Law, on arrogance of planters, 150-151 on southern cattle, 201 on Virginia agriculture, 101-102 Orange County, butter, 242-243 in New York milkshed, 239-240 Orchards, value of products of, 261-262 Oregon, farming development, 387 free land in, 386. Osage orange, for fencing prairies, 187-Osage Reserve, in Kansas, 93 Owen, David D., advocated national university, 368 Owsley, Frank L., on southern farm types, 202 on yeomen farmers, 139 Oxen, common in North, 227 wheat hauled by, 159

Panic of 1819, 65 Panic of 1857, 90, 199, 402 Patent Office, Agricultural Division, 336 agricultural volume, 332, 335 agricultural work of, 330 appropriations for, 334 on diseases of cane, 334 value of its reports, 331-332 Patent Office Advisory Board of Agriculture, 379 Patents, on farm implements, 290-291 on plows, 280-282 Patterson, George, farm practices of, 108 Paulding, James K., criticism of European travellers, 23n Paxson, Frederic L., 140 Peaches, marketing, 257 Pearlash, farmers' production of, 34n Peck, J. M., author, 190 Pell, Robert, fruit grower, 256-257 Pennamite Wars, 42 Pennsylvania, barley and rye in, 173 fruit in, 262 high farming by Germans, 43-44 high land values in, 45-46 land policies in, 40-42 share renting disapproved, 44 subsidized silk production, 303 wheat in, 164-165 Pennsylvania Germans, farm practices of,

165

Pennsylvania German (continued) superior farmers, 43-45 People's College, in New York, 371-372 Perkins, Thomas H., leader of agricultural fairs, 313 Perrine, Henry, importer of new species, Perry, O. H., brought plants from Japan, 300 Peru, guano islands of, 327 dispute over, 328 Petersburg, Va., tobacco manufacturing center, 104 Petit Gulf, cotton seed, 301 Phelps and Gorham, 30 Philadelphia and Lancaster Turnpike, 45 Philips, Martin W., agricultural reformer, 145 fruit business of, 260 Mississippi agricultural writer, 353 poor results with Shorthorns, 205n Phillips, U. B., 10 on large vs. small planters, 137 Pickens, Andrew, Alabama planter, 141 Pickens, Israel, Alabama planter, 141 Pickering, Thomas, deplored livestock neglect, 200 hog breeder, 219 leader of agricultural fairs, 313 Pickett, A. J., Alabama dairyman, 236 Pierpont, H. B., land rentals, 39 offered land for sale, 32 Pioneer farmers, in Indiana, 50 in Ohio, 48 variations among, 140 Pioneering, characteristics of, 2 Pitts, John, threshing machine manufacturer, 283 factories, 288 Pittsburgh, farm marketing center, 45 Planters, advantages of large, 138 attitudes of large, 146 credit needs of, 406-407 grievances vs. factors, 153 hostility to large, 149-151 investments in North, 407 migrate westward, 5 multiple ownership of, 146 problems of cotton, 144 production of largest cotton, 147-148 rice, 120 sugar, debts of, 407

Planters (continued) sugar, economics of, 126 sugar, goal of self sufficiency, 130-131 sugar, politics of, 129 unfavorable to railroads, 151n Planters' Banner and Louisiana Agriculturist, on self sufficiency, 130 Pleuropneumonia, in Massachusetts, 318-319 Plough Boy, farm journal, 341 Plow, bull, 280 cast iron, 281 on cotton plantations, 136 improvement in, 280-283 Jethro Wood, patent on, 280-281 steel, 181 Plymouth Rock, poultry breed, 310 Polk, Leonidas, heavy mortality of slaves, strove for plantation self sufficiency, Pork, in American diet, 214-217 exports of, 217 marketed through New Orleans, 219 in New Orleans trade, 174 in western diet, 216 Pork packing, conditions of, 221 Porter, Alexander, method of assembling plantation, 141n Porter, John A., on agricultural science, Potash, byproduct of land clearing, 26 prices of, 34 Potatoes, blight, 264-266 in New England, 263 role of, 262 sweet, in South, 267 Potter, Arnold, landed proprietor, 31 Pottowatomie Indians, well paid for land, Poultry, on farms, 246 managed by farmers' wives, 247 market for, 247 purebred craze, 309 value of, 311 Powel, John H., cattle fancier, 203 Poydras, Julien, sugar planter, 17 Prairie Farmer, advocated industrial university, 369 on extent of farm laborers, 272 major farm periodical, 343 urged crop rotation, 172

Prairie farming, characteristics of, 179 Prairies, adaptation of plows to, 181 avoidance of, 183 diseases of, 180 drainage, 182 fencing problem, 186 land rush in, 185 in Ohio, 48, 179 railroads open, 183-185 speculator purchases in, 183 Preemption, on unsurveyed land, 391 early, 67 prospective, 58 Preston, John S., sugar planter, 125 Prince, William R., nurseryman, 259 Private land claims, confirmed, 53 in California, 390-392 in Florida and Louisiana, 53-54 Profits, in agriculture, from soil mining, from rising land values, 401 Public health, absence of regulations, 221 city ordinances, 239 movement for pure milk, 238 Public lands, theories of, 374 (see land policies) Pulteney Associates, alien land owners, 33 opposition to, 37

Quebec, source of hired labor, 274 Quincy, Josiah, gentleman farmer, 313 Quitman, John A., dealt in sugar plantations, 132

Race, "scientific" evidence on, 352-353 Railroad construction, in upper Mississippi valley, 80 Railroad farm mortgages, in Wisconsin and Illinois, 186 Railroad land grants, 89-92 amount of, 183-185 attitudes toward, 91 effects on settlement, 185 Railroads, carried hogs to East, 218-220 cattle transportation of, 212-213 construction in South, 113 destruction of livestock by, 417n effects on agriculture, 416-418 enlarged milksheds, 239 enlarged wheat raising, 165

Railroads (continued) government aid to, 186 mileage of, 184 prairie settlement, 183-185 reversed trade routes, 174-176 Rambouillet sheep, imports, 223 Randall, Henry S., authority on sheep, on sheep importation, 223 Reaper, development of, 285-287 permitted wheat expansion, 287 price complaints, 288-289 trials, 287 Red River, land claims on, 53 Relief Acts, for land buyers, 63 Renick, Felix, Ohio cattleman, 209-210 Rennet, cheese made with, 243 Rensselaer, Stephen, the last patroon, 360 Rensselaer estate, tenancy on, 36 Rensselaer Polytechnic Institute, 360 Revenue, defended, 77 in Federal land policies, 55-56 revived, 85 Rhode Island, feared spread of pleuropneumonia, 319 food to New York, 28 high land values in, 29 Rhode Island Reds, poultry variety, 310 Rice, in American diplomacy, 324 army rations excluded, 323 centers of production, 7, 118 exports, 20 farm practices, 121 plantation practices, 119 polishing machine, 119 prices, 122 primitive character of cultivation, 119 problems, 120-121 size of plantations, 120 slave concentration in counties producing, 119 steam powered thresher, 284-285 value of crop, 99 yields declining, 122 Richmond, Va., marketing center, 413 tobacco manufacturing, 104 Rillieux, Norbert, improved sugar refining, Riparian law, among Mormons, 384 Rives, William C., sheep importer, 226 Roads, lack of, 48 prairie, 182

Roanoke Valley, Old Bright Tobacco Belt, 111 soil suitable for tobacco, 108 tobacco producing center, 110-111 Robert, Joseph, on tobacco production, 103, 111 Robinson, Solon, edited The Plow, 344 on farm labor, 272 on meat consumption, 216-217 on New York cattle receipts, 213 on slavery, 345 travel accounts of, 353 upheld homestead exemption, 344 Rock Island Railroad, and reversal of trade routes, 174 Rogin, Leo, on importance of reaper, 287 on plow making, 281 Routh, John, great cotton planter, 147 Ruffin, Edmund, advocated agricultural education, 359 agricultural reforms of, 107 editor, Farmers' Register, 341-342 and Justus von Liebig, 345 on use of lime, 317 Ruffin, Frank, agricultural editor, 342 on inspection laws, 321 on self sufficiency, 308 Rural American, opposed slavery extension, 348 Russell, Robert, quoted, 111 on southern cattle, 201 Rutland County, Vt., sheep center, 224

Rye, used in breweries, 173 St. Johns River, land claims on, 53 St. Louis, land claims in, 53 livestock shipments through, 186 St. Marys Falls Canal Company, 82 Salt springs, given Ohio, 52 Sanders, Lewis, stock importer, 203 Santee River, rice plantations, 118 Winthrop, Sargent, Natchez cotton planter, 18 Saxon sheep, imported, 223 inferior for mutton, 225-226 produced top quality wool, 225n Saxton, C. M., publisher of agricultural works, 357 Scandinavians, in West, 274 Scarlet fever, discouraged demand for milk, 235

Science, studies in England, 295 in Germany, 295 Scioto Valley, cattle in eastern markets, 213 Shorthorn center, 206 Scotch Irish, 8 Scott, John F., land purchase in Mississippi, 105 Scott, Matthew, prairie landlord, 192 Screw press, 137 Scrip, land office money, 79 Scythe, in hay fields, 250 Seed selection, cotton, 134 Senate Committee on Agriculture, 322 Seward, William H., on guano islands, 329 Shakers, Shorthorns of, 204 Sheep, and tariffs, 226-227 foot rot, 226 losses from dogs, 226 mutton types, 225-226 purebred, in Vermont, 224 raising, 221-226 in New England, 27 in West, 224 Shirreff, Patrick, on farm wages, 276 Shorter, Eli, cotton planter, 141 invested in North, 407 Shorthorns, as dairy cattle, 222 craze, 232 breeders, 206 compared with Devons, 207 importations, 203 in South, 205 Sickle, on rice plantations, 119 used with wheat, 157 Silk, efforts to produce, 303 government subsidies to, 303 periodicals, 304 Silliman, Benjamin, on sugar manufacture, 325 Silliman, Benjamin, Jr., 365 Skinner, John S., copied from Liebig, 345 editor, American Farmer, 345 on need for hay baler, 253 opposed usury laws, 345 Slave trade, in Virginia, 105 Slavery, drew attention to South, 22 economics of, 154-155

upheld by Solon Robinson, 345

labor increasingly costly, 105

Slaves, diet of, 129

Slaves (continued) retarded use of farm machines, 294 on rice plantations, 119 sold into Deep South, 105 on sugar plantations, 123, 128 Slidell, John, invested in northern land, spokesman for southern crops, 22 sensitive to sugar planters, 325-326 Small farmers, migrate westward, 9 swallowed up, 5 Small holdings, 139 Smith, Robert, sold skim milk, 236 Smithson, James T., bequest, 366 plans for use of, 367-368 Smithsonian Institution, 368 Smut, damaged wheat, 163 Snuff, 104 Soil erosion, on cotton land, 139, 142 in New England, 26 Soil exhaustion, efforts to avoid, 107 Fanny Kemble on, 135 in Indiana, 168 induced by tobacco cultivation, 100, labor costs contributed to, 102 in New England, 26 in New York, 35, 39 recognized by authorities, 101 in south, 3-6 Soil surveys, states began, 316 Sorghum, introduced, 300, 307 molasses from, 308 Sotham, William H., Hereford breeder, 208 South Carolina, destructive farm practices in, 142 extent of rice country in, 118 migration from, 143 rice in, 7 sea island cotton in, 134 slave migration from, 121 Southern Agriculturist, 342 Southern Cultivator, 342 on selecting a wife, 349 Southern Planter, 342 Southwick, Solomon, 341 Speculation, in public lands, peaks of, 71 - 72Speculation, in sugar plantations, 131-

Speculators, at Huntsville sale, 60-62 land, an "unmitigated evil," 86 in Mississippi and Alabama, 59-60 Speculators' deserts, 84, 199 Squatters, on California land claims, 389 edge of settlement, 8-10 conflict on Half Breed tract, 95 conflicts of, 391 credit needs of, 72 organized claim associations, 67 rights protected, 88-89 in Southwest, 139 Stanton, Frederick, bought land of United States, 141 large cotton planter, 147-148 Stay law, in Iowa and Wisconsin, 92 Steam power, and cotton gin, 285 operated rice threshers, 284 scoop wheels for draining, 123 in sugar mills, 284 Stearns, Abel, cattle rancher, 389, 393 Steuben, Baron, 39 Stilwell, Lewis D., author, 401 Storekeeper, country, provided farmers credit, 404-405 Strawn, Jacob, cattle feeder, 212 prairie cattleman, 193 Strickland, William, on tenancy, 44 Stuart, Charles E., supported Morrill bill, 376 Sturges, Solomon, land dealer, 83n Sugar, in Louisiana, 122 production and prices, 124, 125-127 profits of planters, 126-127 refining process, 123-124, 284-285 tariff rates, 325 Sugar boiler, expert in sugar making, 124 Sugar cane, deterioration of, 308 farm practices of, 128 planting of, 16-18 Sugar houses, number, 125 Sugar planters, debts of, 407 Sullivant, Michael, bonanza farmer, 192-193 Sumner, Charles, neglect of northern agricultural interests, 22 Sumner, Edward, 193 Surget, Francis, arrogance of, 150 cotton planter, 147, 149 land purchases, 141 sugar plantations of, 132

Surget, James, land purchases of, 141
Mississippi planter, 149
sugar planter, 132
Surveying, of public lands, 54–55
progress of, 72, 79–80
Surveyors, on frontier, 55
Surveys, pushed rapidly, 79
Susquehanna River, wheat shipped down, 33, 35
Swamp Land Act, 78
Swamp lands, in California, 395
Symmes, J. C., 49

Tappan, Benjamin, advocated national university, 367 Tariff, on American rice, 323-324 tobacco, 322-323 hemp, 326 and cotton markets, 324 sheep farmers, 326 sugar duties, 129, 325 Taxes, induced speculators to sell, 85n Taylor, John W., land business of, 83 Tenancy, in Alabama, 15 becoming common, 96 on Ellsworth estate, 190 in Illinois, 197–198 land speculation encourages, 66 in New York, 36-39 in North Carolina, 9 in Ohio, 58 on Scully lands, 192 rents, 97 in Tennessee, 14 in Virginia, 6 Tenants, disputes with landlords, 37-Tennessee, cotton in, 15 land policies in, 13-14

sheep in, 227
Shorthorns in, 206
size of farms, 146
Texas cattle, shipped to New Orleans,
209n
slaughtered in New York, 214

supported agricultural society, 314

major producer of beef cattle, 227

Terre Haute, 415

Texas, beef cattle in, 209

migration to, 144

Thomas, David, 209 Thompson, Lewis, Investment in sugar country, 105 Thompson's Bank Note Reporter, 77 Threshing machine, development of, 288 introduction of, 157 Tiling, in New York, 290 John Johnston advocated, 352 Timber, lacking in prairies, 180 Timothy, from England, 251 Tithing houses, Mormon, 385 Tombigbee Valley, land rentals in, 15 plantation system in, 19 private land claims in, 53 Tobacco, convention, 323 cultivation produced soil losses, 101 curing, 103, 106 economics of, 102-103 English duties on, 323 exports of, 20 farm practices of, 102-103, 107-109 in Kentucky, 15 inspection laws, 320 planters regarded land expendable, 102 manufacturing centers, 104 marketing problems, 104 migration of planters, 105 new strains, 108 opposition to foreign duties on, 323 plug, 104 principal areas of, 110-115 problem staple, 100 in Virginia, 4-5 worms, 319 Tories, New York estates of, confiscated, Trade routes reversed, by canals, 174 railroads, 174 Transportation revolution, effects on agriculture, 416 Travellers, concentrated on farming of gentry, 22-23 criticism of accounts of, 23n Treadmills, 229 Trees, clearing, 122

prairie, 180

Trefoil, introduction of, 300

Tucker, Luther, farm journalist, 342

Turkish flint wheat, imported, 300

Trollope, Frances, 235 Truck gardening, 269–270 Turner, Frederick J., on mobility of farm population, 3 on pioneering, 140

Turner, Jonathon Baldwin, on industrial education, 369 nurseryman, 257

"Plan for an Industrial University," 335 responsibility for agricultural colleges, 380n

Undulant fever, discouraged demand for milk, 235

Typhoid, among prairie settlers, 181

Unearned increment, farm makers on, 399 United States, agricultural aid of, 296, 322

botanical garden of, 298 distributed seed, 299 encouraged plant importation, 297 sought improved cane, 308–309 Wilkes expedition, 298–299

United States Agricultural Society, and government agricultural policy, 336

organized, 315
University of Michigan, 373
University of Wisconsin, 373–374
Universities, state, stereotyped character
of, 373
Usury laws, 73, 92
Utah, farming in, 385

Valley Farmer, favored Morrill bill, 378 Van Rensselaer, Henry, gentleman farmer, 31

Mormons in, 383-386

Van Rensselaer, Stephen, 23 founder, Rensselaer Polytechnic, 360 Vegetable, gardening in California, 396– 397

Vegetables, marketing of, 267–268 value of, 261

Vermont, concerned about pleuropneumonia, 319
home of the Morgan horses, 229
hurt by western wool, 416-417
labor costs, 253
potatoes, 263
restlessness of farmers, 27
specialized in Merino sheep, 223-225
subsidized silk production, 303, 305 Veterinary medicine, in Philadelphia, 371 Vicksburg, trade at, 176 Vincennes, land claims in, 53 Vineyards, value, 261 extent of, 258 Virginia, agricultural decline in, 4 agricultural revival in, 108 backwardness of agriculture, 112-113 continued production of wheat in, 164-165 decline of slaves in, 106 farm values of, 113 migration from, 5, 104-106 size of farms in, 110 slave rearing state, 155 tobacco inspection laws, 319-320 unimproved land in, 112 water transportation, 113 Virginia Military Tract, effects of speculation in, 58-59 Vocational education, movement for, 359 von Liebig, Justus, influence of, 36, 317,

345-346

Veterinary College, Philadelphia, 371

Wadsworth, James, encouraged potash production, 34 landed proprietor, 22-23, 31 poor stock of, 201 set up distillery, 38 tenants of, 39 Wadsworth, William, 31 Wages, on construction, 198 farm, 275-279 Walker Tariff, 129 Warner, John, prairie landlord, 194-195 Washburn, Israel, supported Morrill bill, 376 Washington, George, troubled by land wastage, 101 Washington, John A., used guano at Mt. Vernon, 108 Water ram, 290 Watson, Elkanah, on Vermont farms, 25 promoted agricultural fairs, 313 Weaver, Herbert, 132, 152

Webster, Daniel, neglect of northern

agricultural interests, 22

on guano islands, 328

Wentworth, John, 219

West, attitude on public land policies, 66 on absentee speculators, 87-88 views on squatters, 88 Westward movement, 5 Wheat, buyers, 162 Chicago marketing center, 162-163 commercial production of, 167 decline in New York, 164 diseases, 163 distribution of planting, 156 drills, 157 exports, 20, 167-168 harvest hands, 165 hauling of, 159-162 improved cultivation of, 164, 288 Maine bounty for, 317 major crop in New York, 35 milling tolls, 158 Pennsylvania Germans' crop, 44-45 pests, 163 prairie cultivation, 166 prices in Crimean War, 166 production improved in Old South, 109 rental payments of, 173 shift from, 163, 169 produced soil deterioration, 168 in Virginia, 4 westward movement of, 160-161 in Wisconsin, 160-161, 166-169 Wheeling, market center, 415 Whigs, sugar planters supported, 129 Whiskey, in New Orleans trade, 174 production in New York, 35, 36 principal states in, 13 shipments of, 162 White, Miles and Elias, extensive money lenders, 74 foreclosures, 75 Whitfield, Nathan, cotton planter, 141 Wilder, Marshall P., fruit hybridizer, 257 fruit statistics, 261 leading pomologist, 354 lectured at Yale, 365 supported Morrill bill, 379 President, U.S. Pomological Society, Wilkes Expedition, scientific results of, 298-299 scramble for specimens of, 299

Willamette Valley, 386

Williams, Joseph R., lobbyist for agricul-

tural education, 377

Williamson, Charles, land agent, 36 Willingham, William W., extensive money lender, 74 foreclosures of, 75 Windsor County, Vt., sheep center, 224 Wine, making in Ohio, 258 Wisconsin, railroad farm mortgages in politics, 93, 186n state fair, farm machine display, 288 stay law, 92 wheat, 160-161, 166-169 Women, in farm press, 348–349 work in dairy, 244 Wood, fuel, market for, 26 Wood, Jethro, opposition to extension of patent of, 280-281 perfected improved plow, 280 Woodman, Cyrus, creditor, 408 Wool, fleeces, 225 grades and prices, 225 marketed through cooperatives, 415 tariff rates, 326 western depressed New England prices, 416 Wool growers' association, 415 Wool growers' bank, attempt to establish, Worcester County, Mass., land values in, pleuropneumonia in, 318 Worcester, Mass., plow manufacture in, Working Farmer, ties with fertilizer business, 351 Worm fence, 186-187 Worthington, Thomas, 49 Wright, John S., editor, Prairie Farmer, 343 Wyandott corn, 302, 306

Yale, agricultural science at, 362–365
Yankees, farming in Virginia, 113
restlessness of, 27
Yellow fever, slave deaths from, 128
Yeomen farmers, dislike of snobbish planters, 151–152
in Kentucky, 12
largest group in South, 139
Owsley school on, 140
Yerby, George, 83n
Youatt, William, writer, 356