

Agriculture.—As agriculture is a branch of industry coeval with the history of mankind, its connexion with the general welfare of the nation so intimate, its reciprocal bearing on manufactures so immediate—both admitted to form the base of prosperity and power of the people, as it is a branch of science, the prosperity of which, in all its resources, affects individuals of every order, and without which there could be no commerce—it has seemed proper, while exhibiting the actual condition of agricultural industry in the middle of the century, to present, in connexion therewith, some history of the character, introduction, and increase, of the most important of the agricultural productions of our country, and of their former and present commercial consequence to ourselves and other governments. Realizing that all human life is dependent upon it, and that the earth would be nearly depopulated by a year's failure, nearly all the nations of the earth, from the remotest period, have maintained institutions pre-eminently calculated for the promotion of agriculture, honoring husbandry, and encouraging the advancement of the science.

Agriculture is now fostered by the nations on the continent of Europe, is publicly taught in institutions designed for this special purpose, as well as in many of their colleges, and the result has been that, as formerly, while the ancients encouraged agriculture and it received the attention of orators, and its praises and precepts were recited by the bards and sung by poets, and monarchs participated in its labors, learning and agriculture went hand in hand, so that the greatest geniuses of the age identified themselves with its promotion; so in these later years, where properly fostered and encouraged, it has received the attention of some of the greatest intellects and scholars, who have striven to throw most light upon this “grand art of rendering mankind happy, wealthy, and powerful.”

In view of what has been done by other nations, of the little which has been accomplished by the official documents of our country, and in view of the fact that we possess no regularly organized office for the dissemination of agricultural information—although such an establishment was urged by Washington, and many of his successors in office to the present time—it is hoped that the devotion to this subject of more space than that needed for a mere table of figures representing our products of agriculture will be tolerated, and that you will approve of the short history attempted for each of our great productions of agriculture, well calculated, as such an account will be, to make our people better acquainted with the importance of their productions reciprocally, and lead to a more general and perfect sympathy among our citizens. The subject is one worthy more able pens, and we would shrink from the task, conscious of inability to do it justice, were it not supposed that this feeble effort may present points of practical value for embellishment by others better adapted to the duty.

Improved land.—The statement under this head in the agricultural table shows that the average quantity of improved land, by which is meant only such as produces crops, or in some manner adds to the productions of the farmer, is about $7\frac{1}{2}$ acres to each inhabitant; but as perhaps two-fifths of the population live in towns and villages, and are engaged in other pursuits than those of agriculture, the proportion of im-

proved land to be assigned to each person occupying or working it may be assumed as not less than twelve acres. In the New England States the average for the whole population is a little more than four acres to each person; in New York and Pennsylvania, 3.9 acres; in the other middle States, the same. In Virginia, the proportion is about seven acres; in South Carolina, six acres; in Kentucky, twelve acres; and in Tennessee, five acres. The value of the farms in the United States is returned at \$3,270,733,093.

Unimproved land.—This return is to be understood as including the unimproved land connected with, or belonging to, those farms from which productions are returned. In the present unsettled state of large portions of the country, this classification is of less practical utility than it will become at a future day, when similar returns will enable us to form calculations respecting the quantity of land brought into requisition annually for agricultural purposes. The following table will exhibit the quantity and value of the improved and unimproved land belonging to the farms and plantations of the several States, and, of course, includes the value of the buildings thereon :

Statement showing the number of acres of improved and unimproved land, in farms, the cash value thereof, and the average cash value per acre, in each State and Territory.

States and Territories.	Acres of improved land.	Acres of unimproved land in farms.	Total.	Cash value of land, improved and unimp'd.	Average cash val. per acre.
Maine	2,039,596	2,515,797	4,555,393	\$54,861,748	\$12 04
New Hampshire	2,251,488	1,140,926	3,392,414	55,245,997	16 28
Vermont	2,601,409	1,524,413	4,125,822	63,367,227	15 36
Massachusetts	2,133,436	1,222,576	3,356,012	109,076,347	32 50
Rhode Island	356,487	197,451	553,938	17,070,802	30 82
Connecticut	1,768,178	615,701	2,383,879	72,726,422	30 50
New York	12,408,968	6,710,120	19,119,088	554,546,642	29 00
New Jersey	1,767,991	984,955	2,752,946	120,237,511	43 67
Pennsylvania	8,628,619	6,294,728	14,923,347	407,876,099	27 33
Delaware	580,862	375,282	956,144	18,880,031	19 75
Maryland	2,797,965	1,836,445	4,634,350	87,178,545	18 81
District of Columbia.....	16,267	11,187	27,454	1,730,460	63 03
Virginia	10,360,135	15,792,176	26,152,311	216,401,441	8 27
North Carolina	5,453,977	15,543,010	20,996,987	67,891,766	3 23
South Carolina	4,072,651	12,145,049	16,217,700	82,431,684	5 08
Georgia	6,378,479	16,442,900	22,821,379	95,753,445	4 19
Florida	349,049	1,236,240	1,585,289	6,323,109	3 99
Alabama	4,435,614	7,702,067	12,137,681	64,323,224	5 30
Mississippi	3,444,358	7,046,061	10,490,419	54,738,634	5 22
Louisiana	1,590,025	3,939,018	5,529,043	75,814,398	13 71
Texas	639,107	14,454,669	15,093,776	16,398,747	1 09
Arkansas	781,531	1,816,684	2,598,215	15,265,245	5 88
Tennessee	5,175,173	13,808,849	18,984,022	97,851,212	5 16
Kentucky	11,368,270	10,972,478	22,340,748	154,330,262	6 91
Ohio	9,851,493	8,146,000	17,997,493	358,758,603	19 93
Michigan	1,929,110	2,454,780	4,383,890	51,872,446	11 83
Indiana	5,046,543	7,746,879	12,793,422	136,385,173	10 66
Illinois	5,039,545	6,997,867	12,037,412	96,133,290	7 99
Missouri	2,938,425	6,794,245	9,732,670	63,225,543	6 50
Iowa	824,682	1,911,382	2,736,064	16,657,567	6 09
Wisconsin	1,045,499	1,931,159	2,976,658	23,528,563	9 58
California	62,324	3,831,571	3,893,895	3,874,041	99
Minnesota Territory	5,035	23,646	28,681	161,948	5 61
Oregon	132,857	299,951	432,808	2,849,170	6 58
Utah	16,333	30,516	46,849	311,799	6 65
New Mexico	166,201	124,370	290,571	1,653,952	5 69
Aggregate.....	118,457,622	184,621,348	303,078,970	3,270,733,093	av. 10 79

Value of Farming Implements and Machinery.—For no stronger proof of the ingenuity and activity of the American mind need we search than that developed in the readiness with which labor-saving expedients for carrying on the commonest operations in agriculture are discovered and applied. One hundred and fifty-one millions of dollars would appear to be at this time invested in implements and machines for aiding and abridging the work of the hands in cultivating the earth and in preparing its produce for consumption. In most civilized countries of the Old World, so great is the density of the population, and so low the prices of labor, that less necessity is created for such machines; and nowhere does the same amount of ingenuity appear to

have been exercised in their preparation as is evinced by our mechanics and husbandmen.

In some portions of the Old World, where the necessity of improvement is felt and acknowledged by the intelligent, a predominating prejudice not unfrequently exists among others in the community against what is new, and prohibits the introduction of anything not stamped with the approval of their ancestors. Here, however, no such sentiment influences the farmer to reject a useful invention.

No greater delight was enjoyed by foreigners in London, during the great Industrial Exhibition, than that by Americans on the trial of the reaping machines, and the triumphant success of the American reaper. Of the whole sum expended in articles of this character, New York has invested \$22,084,926; Pennsylvania, \$14,722,541; Louisiana, \$11,576,938, (perhaps to a great extent in machinery for crushing sugar cane;) Ohio, \$12,750,585; Kentucky, \$5,169,037; Virginia, \$7,021,772.

Domestic Animals.—When we consider the social condition of nations long congregated and civilized, and necessarily existing under the impulses of utilitarianism, it is not surprising that man, whether possessing a permanent abode, or having emigrated to a distant land, should become attached to those animals which have proffered to him their perfect obedience, sagacity, courage, strength, velocity, milk, fleeces, flesh, &c., and should regard them with admiration, gratitude, and even affection. Such, doubtless, was the case with most of the adventurers who first sought a new home on our shores, and brought with them those animals which would render them the most assistance and subserve the best purposes for clothing and food.

The first animals brought to America from Europe were imported by Columbus, in his second voyage, in 1493. He left Spain as Admiral of seventeen ships, bringing a collection of European trees, plants, and seeds of various kinds, a number of horses, a bull, and several cows.

The first horses brought into any part of the territory at present embraced in the United States were landed in Florida by Cabeça de Vaca, in 1527, forty-two in number, all of which perished or were otherwise killed. The next importation was also brought to Florida, by De Soto, in 1539, which consisted of a large number of horses and swine, among which were thirteen sows, the progeny of the latter soon increasing to several hundred.

The Portuguese took cattle and swine to Newfoundland and Nova Scotia in the year 1553. Thirty years after, they had multiplied so abundantly that Sir Richard Gilbert attempted to land there to obtain supplies of cattle and hogs for his crew, but was wrecked.

Swine and other domestic animals were brought over to Acadia by M. L'Escarbot, a French lawyer, in 1604, the year that country was settled. In 1608, the French extended their settlement into Canada, and soon after introduced various animals.

In 1609, three ships from England landed at Jamestown, in Virginia, with many immigrants, and the following domestic animals, namely: six mares, one horse, six hundred swine, five hundred domestic fowls, with a few sheep and goats. Other animals had been previously in-

roduced there. In 1611, Sir Thomas Gates brought over to the same settlement one hundred cows, besides other cattle. In 1610, an edict was issued in Virginia, prohibiting the killing of domestic animals of any kind, on penalty of death to the principal, burning the hand and loss of the ears to the accessory, and twenty-four hours' whipping to the concealer. As early as the year 1617, the swine had multiplied so rapidly in the colony, that the people were obliged to palisade Jamestown, to prevent being overrun with them. In 1627, the Indians, near the settlement, fed upon hogs which had become wild, instead of game. Every family in Virginia at that time, who had not an abundance of tame hogs and poultry, was considered very poor. In 1648, some of the settlers had a good stock of bees. In 1657, sheep and mares were forbidden to be exported from the province. By the year 1722, or before, sheep had somewhat multiplied, and yielded good fleeces.

The first animals introduced into Massachusetts was by Edward Winslow, in 1624, consisting of three heifers and a bull. In 1626, twelve cows were sent to Cape Ann. In 1629, one hundred and fifteen cattle were imported into the plantations on Massachusetts bay, besides some horses and mares, several conies, and forty-one goats. They were mostly ordered by Francis Higginson, formerly of Leicestershire, whence several of the animals were brought.

The first importation into New York was made from Holland, by the West India Company, in 1625, comprising one hundred and three animals, consisting of horses and cattle for breeding, besides as many sheep and hogs as was thought expedient.

In 1750, the French, of Illinois, were in possession of considerable numbers of horses, cattle, and swine.

The present stock of the United States consists of the offspring of the animals first introduced, the crosses of the original breeds with one another, or the intermixture of the progeny of these crosses with those of more recent importation, and the pure-blooded animals brought directly from Europe, or the crosses of these with one another.

The principal breeds of horses, adapted for specific purposes, in the middle, northern and western States, are the Norman, the Canadian, the Morgan, the Conestoga or Pennsylvanian, the Virginian, and the Kentuckian. For carriages of heavy draught the Conestogas are regarded by many as the best. For the saddle, draught, and other useful purposes, the Morgans are highly prized, especially in New York. For roadsters, the Normans and Canadians are frequently sought. For blood, the Virginians and Kentuckians generally take the lead.

Among the various races of cattle existing among us, where strict regard is paid to breeding with a definite object in view, a preference is given to the Durhams or shorthorns, the Herefords, the Ayrshires, and the Devons. The *Durhams*, from their rapid growth, early maturity, and capability of taking on fat, are adapted only for high keeping, or to the richest pastures of the middle and northern States, and those of Ohio, Kentucky, and other parts of the West. The males, when judiciously crossed with the other breeds, or with the common cows of the country, often beget the best of milkers, and for this purpose they have been especially recommended. The Herefords, on the contrary, from their peculiar organization, are better adapted for poor or indif-

ferent pastures, and regions subject to continued drought; and for this reason they are well suited for California, New Mexico, Texas, and other parts of the South. The oxen of this breed are good in the yoke, and the cows, when properly fed, give an abundance of milk. The Ayrshires are best suited for a cool, mountainous region, or a cold, rigorous climate. They succeed well in Massachusetts, New Hampshire and Vermont, and are highly prized for their tameness, docile tempers, and rich milk. The Devons, from their hardihood, comparatively small size, and peculiar structure, appear to be adapted to almost every climate, and to all kinds of pasturage. From their stoutness, good tempers, honesty, and quickness of action, they make the best teams, and in this respect their chief excellency consists. The cows make fair milkers, and their flesh very good beef. They also possess great aptitude to take on fat.

The kinds of sheep most sought for are the pure-blooded Merinos, the Saxons, the Cotswolds, the Leicestershires, the Oxfordshires, and the South Downs. The *Merinos*, (including the Rambouillets,) the Cotswolds, the Leicestershires, the Oxfordshires, and the Saxons, are the most highly prized for their wool. The South Downs are particularly esteemed for the excellence of their flesh, and their wool is valuable for many purposes on account of the facility with which it can be wrought.

The prevailing breeds of swine in the middle, northern and western States, are the Berkshire, the Leicestershire, the Suffolk, the Essex, the Neapolitan, and the Chinese. From these and other varieties various crosses have been produced, the more important of which are the Byfield, the Woburn, the Bedford, the Grass, and the Mackay. The Neapolitans are particularly well adapted for a southern climate.

In 1627, the plantations on James river contained about 2,000 head of horned cattle, goats in great abundance, and wild hogs in the forest without number. In 1639, there were in Virginia 30,000 cattle, 200 horses, and 70 asses; and in 1648, there were 20,000 cows, bulls, and calves, 200 horses and mares, 50 asses, 3,000 sheep, 5,000 goats, swine both tame and wild, hens, turkeys, ducks, and geese, innumerable. There were exported from Savannah, in 1755, 48 horses, and 16 steers and cows; in 1770, 345 horses, 30 mules, and 25 steers and cows; and in 1772, 136 steers and cows. In 1820-21, there were exported from the United States 853 horses, 94 mules, 5,018 horned cattle, 11,117 sheep, and 7,885 swine; in 1830-31, 2,184 horses, 1,540 mules, 5,881 cattle, 8,262 sheep, and 14,690 swine; in 1840-41, 2,930 horses, 1,418 mules, 7,861 cattle, 14,639 sheep, and 7,901 swine; in 1850-51, 1,364 horses, 2,946 mules, 1,350 cattle, 4,357 sheep, and 1,030 swine.

According to the Census returns of 1840, there were in the United States 4,335,669 horses and mules, 14,971,536 neat cattle, 19,311,374 sheep, and 26,301,293 swine; of 1850, 4,335,358 horses, 559,229 asses and mules, 28,360,141 horned cattle, (including 6,392,044 milch cows and 1,699,241 working oxen,) 21,721,814 sheep, and 30,316,608 swine.

Horses.—In the tables of 1840, horses, mules, and asses were returned together; in those of the late Census the number of horses is given in one column, and asses and mules in another. The increase in the aggregate number of these three classes of animals during the ten

years was 559,053. It is presumed the greatest increase has occurred in the number of mules. Many suppose that the great extension of railroads has a tendency to dispense with the use of large numbers of horses; but one very good reason for the small apparent increase in the number of horses exists in the fact that the enumeration of 1850 omits all in cities, and includes only or mainly such as are employed in agriculture, or owned by farmers. In the State of New York, where there are less than a thousand mules, there appears to be a decline in the number of horses and mules together of 26,566; in Pennsylvania, of about 13,000; in New England, of 77,000, or more than 25 per cent.; while in all these States railroad conveyance has almost superseded the use of horses for travelling purposes along main routes of travel. We would more readily attribute the apparent diminution to the omission to enumerate the horses in cities and towns, than to any superseding of horse power, which the opening of railroads would often bring into requisition in various other operations not required previously. In Ohio and the new States of the Northwest, the increase of horses has kept pace with that of the population. The four and a quarter millions of these noble animals in the United States constitute a proportion of one to five of the inhabitants. New York has one horse to seven persons, Pennsylvania, one to six and six-tenths, Ohio, one to four, Kentucky, one to three free inhabitants. The number of horses in the United States is more than three times as large as that in Great Britain.

Asses and Mules.—As mentioned in the preceding paragraph, we find in the tables of 1840 no basis of comparison in regard to the raising of asses and mules. By the returns of 1850, it is shown that the number of these animals in the Union is 559,070, of which all but 30,000 are found in the southern States. For various employments the mule is far better adapted to that region than the horse. Extreme and long-continued heat does not enfeeble him, and the expense of his subsistence and general care is much less in comparison with the service he is able to perform. In some northern States a considerable number was reared formerly for export, and a brisk trade was kept up with the West Indies in this kind of stock. What are now exported from the points which formerly monopolized this branch of traffic, are brought from the South. Tennessee is the largest producer of mules, of which the number in that State, in 1850, was 75,303. Kentucky stands next, having 65,609. In New Mexico the number of mules was 8,654, greater by nearly four-fifths than the horses returned for that Territory. Much attention has been given to the improvement of mules in some of our southern States, and those sent from Kentucky, Tennessee, and Missouri, to be employed in army transportation in Mexico, were often not inferior in height to the horses of that country, and were at all times superior to them in strength, endurance, and usefulness.

Milch Cows.—Under the general term of "neat cattle" were embraced in the Sixth Census the three descriptions of animals designated in that of 1850 as milch cows, working oxen, and other cattle. The aggregate of the three classes, in 1840, was 14,971,586; in 1850, 18,355,287. The increase, therefore, between the two periods, was 3,383,701, or about 20 per cent. They appear to be distributed quite equally over

the Union. The amount of butter produced gives an average of something over 49 pounds to each milch cow. The average production of cheese to each cow is 16 $\frac{3}{4}$ pounds. As with horses, the same allowance must be made, on account of the omission of cows, except in connexion with agriculture. The only schedules in which the live stock of the country could be enumerated, were those used for obtaining the agricultural products of farms. From the fact that the schedules for enumerating agricultural productions and live stock were not used in cities, their live stock was necessarily omitted.

Butter and Cheese.—The Census of 1840 furnishes us no statistics from which we can accurately determine the quantity of butter and cheese then produced. The value of both is given under the heading of "value of the products of the dairy" at the sum of \$33,787,008. It is presumed that the marshals made their returns in accordance with the prices governing in their respective districts, which would differ so widely as to render any assumed average a mere conjecture. New York is far in advance of any other State in the productiveness of its dairies. They yield one-fourth of all the butter and nearly one-half the cheese produced in the Union. Pennsylvania, which makes 40,000,000 pounds of butter, is less prolific in cheese than several smaller States. In this latter article, Ohio is before all other competitors, except New York.

The following table shows the amount of dairy products exported from the United States for several years past:

Years.	Butter—pounds.	Cheese—pounds.	Value.
1820-'21	1,069,024	766,431	\$190,287
1830-'31	1,728,212	1,131,817	264,796
1840-'41	3,785,993	1,748,471	504,815
1841-'42	2,055,133	2,456,607	385,185
1842-'43	3,408,247	3,440,144	508,968
1843-'44	3,251,952	7,343,145	758,829
1844-'45	3,587,489	7,941,187	878,865
1845-'46	3,436,660	8,675,390	1,063,087
1846-'47	4,214,433	15,673,600	1,741,770
1847-'48	2,751,086	12,913,305	1,361,668
1848-'49	3,406,242	17,433,682	1,654,157
1849-'50	3,876,175	13,020,817	1,215,463
1850-'51	3,994,542	10,361,189	1,124,652

Sheep.—There was between 1840 and 1850 an increase of 2,309,108 in the number of sheep in the United States. It will be useful to observe with some closeness the progress of sheep-breeding in different parts of the country. We perceive that in New England there has occurred a remarkable decrease in their number. There were in that division of the Union in 1840, 3,811,307; in 1850, the number had declined to 2,164,452; being a decrease of 1,646,855, or 45 per cent.

In the five Atlantic middle States, New York, New Jersey, Pennsylv-

vania, Delaware, and Maryland, there was a decrease from 7,402,851 to 5,641,391, equal to 1,761,460, or about 22½ per cent. In Pennsylvania there was a gain, however, during this period, of 155,000 sheep.

We see that while there has been a positive diminution of 3,408,000 in the States above named, there has been an augmentation of 5,717,608 in those south of Maryland and west of New York. Ohio has gained most largely, having been returned as pasturing in 1840, 2,028,401; and in 1850, 3,942,929; an increase of 1,914,528, or nearly 100 per cent.

In each of the States south and west of the lines above indicated, there has been a very large proportional increase in this kind of stock, and there is reasonable ground for the opinion that the hilly lands of Virginia, North and South Carolina, Tennessee, and the prairies of Illinois, Iowa, and Texas, will prove highly favorable for the rearing of sheep for their wool and pelts.

New Mexico has the extraordinary number of 377,271 sheep—more than six to each inhabitant; proving the soil and climate of that Territory to be well adapted to this description of stock, and giving promise of a large addition from that quarter to the supply of wool. The importance of fostering this great branch of national production is shown by the fact, as assumed by an intelligent writer on the subject, that our population annually consumes an amount of wool equal to seven pounds for each person.

If this estimate be even an approximation to correctness, we are yet very far short of producing a quantity adequate to the wants of the country; and it is equally clear that we possess an amount of unemployed land adapted to grazing, sufficient to support flocks numerous enough to clothe the people of the world.

Value of Live Stock.—The very large sum representing the value of live stock in the United States cannot be considered extravagant, in view of the immense number of animals returned. It is an item of agricultural capital which affords a good indication of the wealth and prosperity of the country.

Wheat.—Wheat, where the soil and climate are adapted to its growth, and the requisite progress has been made in its culture, is decidedly preferred to all other grains, and, next to maize, is the most important crop in the United States, not only on account of its general use for bread, but for its safety and convenience for exportation. It is not known to what country it is indigenous, any more than our other cultivated cereals, all of which, no doubt, have been essentially improved by man. By some, wheat is considered to have been coeval with the creation, as it is known that upwards of a thousand years before our era, it was cultivated, and a superior variety had been attained. It has steadily followed the progress of civilization, from the earliest times, in all countries where it would grow.

The introduction of this grain into the North American colonies dates back to the earliest periods of their settlement by Europeans. It was first sown, with other grains, on the Elizabeth islands, in Massachusetts, by Gosnold, at the time he explored that coast, in 1602. In 1611, wheat, as well as other grains, was also sown in Virginia, and by the year 1648 there were cultivated many hundred acres in that colony. Although premiums were offered as an encouragement of its growth,

in 1651, it was not much cultivated for more than a century after, in consequence of the ill-directed attention to the culture of tobacco.

Wheat was introduced into the valley of the Mississippi by the "Western Company," in 1718, where, from the careless mode of cultivating it by the early settlers, and the sudden alternations of temperature, it would only yield from five to eight fold, running to straw and blade without filling the ear. In 1746, however, the culture had so far extended, that six hundred barrels of flour were received at New Orleans from the Wabash; and by the year 1750, the French of Illinois raised three times as much wheat as they consumed, and large quantities of grain and flour were sent to the same place.

Prior to the Revolution, the primitive soils of New York, New Jersey, and of New England, appear not to have rewarded the cultivation of this grain much, if any, beyond the wants of the inhabitants. Considerable quantities were raised on the Hudson, and in some parts of New Jersey and Pennsylvania, which were exported to the West Indies, and New England, and to Great Britain, France, Portugal, and Spain in years of scarcity, previously to 1723.

In 1776, there was entailed upon this country an enduring calamity, in consequence of the introduction of the Hessian or wheat fly, which was supposed to have been brought from Germany in some straw employed in the debarkation of Howe's troops, on the west end of Long Island. From that point this insect gradually spread in various directions, at the rate of twenty or thirty miles a year, and the wheat of the entire regions east of the Alleghanies is now more or less infested with the larvæ, as well as in large portions of the States bordering on the Ohio and Mississippi, and on the great lakes; and so great have been the ravages of these insects that, the cultivation of this grain in many places, has been abandoned.

The geographical range of the wheat region in the Eastern Continent and Australia, lies principally between the thirtieth and sixtieth parallel of north latitude, and between the thirtieth and fortieth degrees south, being chiefly confined to France, Spain, Portugal, Italy, Sicily, Greece, Turkey, Russia, Denmark, Norway, Sweden, Poland, Prussia, Netherlands, Belgium, Great Britain, Ireland, Northern and Southern Africa, Tartary, India, China, Australia, Van Dieman's Land, and Japan. Along the Atlantic portions of the Western Continent, it embraces the tracts lying between the thirtieth and fiftieth parallels; and in the country westward of the Rocky mountains, one or more degrees further north. Along the west coast of South America, as well as in situations within the torrid zone, sufficiently elevated above the level of the sea and properly irrigated by natural or artificial means, abundant crops are often produced.

The principal districts of the United States in which this important grain is produced in the greatest abundance, and forms a leading article of commerce, embrace the States of New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, Ohio, Kentucky, Michigan, Indiana, Illinois, Missouri, Wisconsin, and Iowa. The chief varieties cultivated in the northern and eastern States are the white flint, tea, Siberian, bald, Black sea, and the Italian spring wheat; in the middle and western States, the Mediterranean, the Virginia white May, the

blue stem, the Indiana, the Kentucky white bearded, the old red chaff, and the Talavera. The yield varies from ten to forty bushels and upwards per acre, weighing per bushel, from fifty-eight to sixty-seven pounds.

It appears that on the whole crop of the United States there was a gain, during the ten years, of 15,645,378 bushels. The crop of New England decreased from 2,014,000 to 1,090,000 bushels, exhibiting a decline of 924,000 bushels, and indicating that the attention of farmers has been much withdrawn from the culture of wheat. Grouping the States from the Hudson to the Potomac, including the District of Columbia, it appears that they produced, in 1849, 35,085,000 bushels, against 29,936,000 in 1839. (In Virginia there was an increase of 1,123,000 bushels.) These States embrace the oldest wheat-growing region of the country, and that in which the soil and climate seem to be adapted to the permanent culture of the grain. The increase of production in the ten years has been 6,272,000 bushels, equal to 17.4 per cent. The area of tilled land in these States is 36,000,000 acres, only 30 per cent. of the number of acres returned for the whole United States, while the proportion of wheat produced is 46 per cent. of the entire crop of the country. In North Carolina there has been an increase of 170,000 bushels; but in the southern States generally there was a considerable decrease. Indiana, Illinois, Michigan, and Wisconsin contributed to the general aggregate, under the Sixth Census, only 9,800,000 bushels; under the last they are shown to have produced upwards of 25,000,000 bushels, an amount greater than the whole increase in the United States for the period.

When we see the growth of wheat keeping up with the progress of population in the oldest States of the Union, we need have no apprehension of a decline in the cultivation of this important crop.

The amount of flour exported from New Jersey, in 1751, was 6,424 barrels; from Philadelphia, in 1752, 125,960 barrels, besides 86,500 bushels of wheat; in 1767, 198,816 barrels, besides 367,500 bushels of wheat; in 1771, 252,744 barrels; from Savannah, in 1771, 7,200 pounds; from Virginia, for some years annually preceding the Revolution, 800,000 bushels of wheat. The total exports of flour from the United States in 1791 were 619,681 barrels, besides 1,018,339 bushels of wheat; in 1800, 653,052 barrels, besides 26,853 bushels of wheat; in 1810, 798,431 barrels, besides 325,924 bushels of wheat; in 1820-21, 1,056,119 barrels, besides 25,821 bushels of wheat; in 1830-31, 1,806,529 barrels, besides 408,910 bushels of wheat; in 1840-41, 1,515,817 barrels, besides 868,585 bushels of wheat; in 1845-46, 2,289,476 barrels, besides 1,613,795 bushels of wheat; in 1846-47, 4,382,496 barrels, besides 4,399,951 bushels of wheat; in 1850-51, 2,202,335 barrels, besides 1,026,725 bushels of wheat.

According to the Census of 1840, the wheat crop of the United States amounted to 84,823,272 bushels; in 1849, according to the Census of 1850, 100,503,899 bushels, although in some of the largest wheat-growing States the crop of 1849 fell far below the average.

In the State of Ohio, especially, there was great deficiency, as was made apparent by the returns of the wheat crop for the ensuing year, made in pursuance of an act of the legislature of that State. From

the almost universal returns of "short crop," by the marshals in that State, in 1849, which fell below that of 1839, 2,000,000 bushels, and the ascertained crop of 1850, we are fully satisfied that the average wheat crop of Ohio, would appear 30 per cent. greater than shown by the Census returns. The same causes which operated to diminish the wheat crop of Ohio, were not without their effects upon that of other States bordering on the upper portion of the valley of the Mississippi.

In the London Exhibition very little wheat was exhibited equal to that from the United States, especially that from Genesee county, in the State of New York—a soft, white variety—to the exhibitor of which a prize medal was awarded by the Royal Commissioners, and recently transmitted to Mr. Bell by the President of the United States, the chairman of the American Executive Committee. The red Mediterranean wheat exhibited from the United States attracted much attention. The wheat from South Australia was probably superior to any exhibited, while much from our own country fell but little behind, and was unquestionably next in quality.

Rye.—This grain is supposed to be a native of the Caspian Caucasian desert, and has been cultivated in the north of Europe and Asia from time immemorial, where it constitutes an important article of human subsistence, being generally mixed with barley or wheat. Its introduction into western Europe is of comparatively recent date, as no mention is made of it in the "Ortus Sanitatis," published at Augsburg in 1485, which treats at length of barley, millet, oats, and wheat.

Rye was cultivated in the North American colonies soon after their settlement by the English. Gorges speaks of it as growing in Nova Scotia in 1622, as well as of barley and wheat. Plantagenet enumerates it among the productions of North Virginia, (New England,) in 1648, and alludes to the mixing of it with maize in the formation of bread. It was also cultivated in South Virginia by Sir William Berkeley previous to that year.

Geographically, rye and barley associate with one another, and grow upon soils the most analogous, and in situations alike exposed. It is cultivated for bread in northern Asia, and all over the continent of Europe, particularly in Russia, Norway, Denmark, Sweden, Germany, and Holland; in the latter of which it is much employed in the manufacture of gin. It is also grown to some extent in England, Scotland, and Wales. In this country it is principally restricted to the middle and eastern States, but its culture is giving place to more profitable crops.

The three leading varieties cultivated in the United States are the spring, winter, and southern, the latter differing from the others only from dissimilarity of climate. The yield varies from 10 to 30, or more, bushels per acre, weighing from 48 to 56 pounds to the bushel.

The production of rye has decreased 4,457,000 bushels in the aggregate; but in New York it is greater than in 1840 by about 40 per cent. Pennsylvania, which is the largest producer, has fallen off from 6,613,373, to 4,805,160 bushels. Perhaps the general diminution in the quantity of this grain now produced may be accounted for by supposing a corresponding decline in the demand for distilling purposes, to which a large part of the crop is applied.

This grain has never entered largely into our foreign commerce, as the home consumption for a long period nearly kept pace with the supply. The amount exported from the United States, in 1801, was 392,276 bushels; in 1812, 82,705 bushels; in 1813, 140,136 bushels. In 1820-'21, there were exported 23,523 barrels of rye flour; in 1830-'31, 19,100 barrels; in 1840-'41, 44,031 barrels; in 1845-'46, 38,530 barrels; in 1846-'47, 48,892 barrels, in 1850-'51, 44,152 barrels.

During the year ending June 1, 1850, there were consumed, of rye, about 2,144,000 bushels in the manufacture of malt and spirituous liquors.

According to the Census returns of 1840, the product of the country was 18,645,567 bushels; in 1850, 14,188,637 bushels.

Maize, or Indian Corn.—Among the objects of culture in the United States, maize, or Indian corn, takes precedence in the scale of crops, as it is best adapted to the soil and climate, and furnishes the largest amount of nutritive food. Where due regard is paid to the selection of varieties, and cultivated in a proper soil, it may be accounted as a sure crop in almost every portion of the habitable globe between the 44th degree of north latitude and a corresponding parallel south. Besides its production in this country, its principal culture is limited to Mexico, the West Indies, most of the States of South America, France, Spain, Portugal, Lombardy, and southern and central Europe generally. It is also cultivated with success in northern, southern, and western Africa, India, China, Japan, Australia, and the Sandwich Islands, the groups of the Azores, the Madeiras, the Canaries, and numerous other ocean isles.

Although there has been much written on the Eastern origin of this grain, it did not grow in that part of Asia watered by the Indus at the time of Alexander the Great's expedition, as it is not among the productions of that country mentioned by Nearchus, the commander of the fleet. Neither is it noticed by Arrian, Diodorus, Columella, nor any other ancient author. And even as late as 1491, the year before Columbus discovered America, Joan: di Cuba, in his "*Ortus Sanitatis*," makes no mention of it. It has never been found in any ancient tumulus, sarcophagus, or pyramid; nor has it ever been represented in any ancient painting, sculpture, or work of art, except in America. But in this country, according to Garcilaso de la Vega, one of the earliest Peruvian historians, the palace gardens of the Incas were ornamented with maize in gold and silver, with all the grains, spikes, stalks, and leaves; and in one instance, in the "*Garden of Gold and Silver*," there was an entire corn field of considerable size, representing the maize in its exact and natural shape, a proof no less of the wealth of the Incas, than of their veneration for this important grain.

In further proof of the American origin of this plant, it may be stated that it is still found growing in a wild state, from the Rocky mountains, in North America, to the humid forests of Paraguay, where, instead of having each grain naked, as is always the case after long cultivation, it is completely covered with glumes, or husks. It is, moreover, a well authenticated fact that maize was found in a state of cultivation by the aborigines, on the island of Cuba at the time of its discovery by Co-

lumbus, as well as in most other places in America first explored by Europeans.

The first successful attempt of the English in North America to cultivate this grain was made on James river, in Virginia, in 1608. The colonists sent over by the "London Company" adopted the mode then practised by the Indians, which, with some modifications, has been pursued ever since. The yield at that time is represented to have been from two hundred to more than a thousand fold. The same increase was noticed by the early settlers in Illinois. The present yield, east of the Rocky mountains, when judiciously cultivated, varies from twenty to one hundred and thirty-five bushels to an acre.

The varieties of Indian corn are very numerous, exhibiting many grades of size, color, and conformation. Among these are the shrubby reed, that grows on the shores of Lake Superior; the gigantic stalks of the Ohio valley; the tiny ears, with flat close-clinging grains of Canada; the brilliant, rounded little pearl; the bright-red grains and white cob of the eight-rowed hematite; the swelling ear of the big white; and the yellow gourd seed of the South.

From the flexibility of this plant, it may be acclimatized, by gradual cultivation, from Texas to Maine, or from Canada to Brazil; but, in either case, its character is somewhat changed, and often new varieties are the results. The blades of the plant are of great value as food for stock, and form an article but rarely estimated sufficiently, when considering the agricultural products of the southern and southwestern States especially.

The increase of production from 1840 to 1850 was 214,000,000 bushels, equal to 56 per cent. The production of New England has advanced from 6,993,000 to 10,377,000 bushels, showing an increase of 3,384,000 bushels—nearly 50 per cent. New York, New Jersey, Pennsylvania, Delaware, and Maryland increased 20,812,000 bushels—more than 50 per cent. In the production of this crop, no State has retrograded. Ohio, which in 1840 occupied the fourth place as a corn-producing State, now ranks as the first; Kentucky, second; Illinois, third; Tennessee, fourth. The crop of Illinois has increased from 22,000,000 to 57,500,000 bushels, or at the rate of 60 per cent. in ten years.

Of the numerous varieties, some are best adapted to the southern States, while others are better suited for the northern and eastern. Those generally cultivated in the former are the southern big and small yellow, the southern big and small white-flint, the yellow Peruvian, and the Virginia white gourd seed. In the more northerly and easterly States, they cultivate the golden Sioux, or northern yellow-flint, the King Philip, or eight rowed yellow, the Canada early white, the Tuscarora, the white flour, and the Rhode Island white flint.

The extended cultivation of this grain is chiefly confined to the eastern, middle, and western States, though much more successfully grown in the latter. The amount exported from South Carolina in 1748 was 39,308 bushels; from North Carolina, in 1753, 61,580 bushels; from Virginia, for several years preceding the Revolution, annually, 600,000 bushels; from Philadelphia, in 1752, 90,740 bushels; in 1767-'68, 60,205 bushels; in 1771, 259,441 bushels.

The total amount exported from this country in 1770 was 578,349

bushels; in 1791, 2,064,936 bushels, 351,695 of which were Indian meal; in 1800, 2,032,435 bushels, 338,108 of which were in meal; in 1810, 1,140,960 bushels, 86,744 of which were in meal. In 1820-'21, there were exported 607,277 bushels of corn and 131,669 barrels of Indian meal; in 1830-'31, 571,312 bushels of corn and 207,604 barrels of meal; in 1840-'41, 535,727 bushels of corn and 232,284 barrels of meal; in 1845-'46, 1,286,068 bushels of corn and 298,790 barrels of meal; in 1846-'47, 16,326,050 bushels of corn and 948,060 barrels of meal;* in 1850-'51, 3,426,811 bushels of corn and 203,622 barrels of meal. More than eleven millions of bushels of Indian corn were consumed in 1850 in the manufacture of malt and spirituous liquors.

According to the Census of 1840, the corn crop of the United States was 377,531,875 bushels; of 1850, 592,326,612 bushels.

Oats.—The oat, when considered in connexion with the artificial grasses and the nourishment and improvement it affords to live stock, may be regarded as one of the most important crops we produce. Its history is highly interesting, from the circumstance, that, while in many portions of Europe, when ground into meal, it forms an important aliment for man, one sort at least, has been cultivated from the days of Pliny, on account of its superior fitness as an article of diet for the sick. The country of its origin is somewhat uncertain, though the most common variety is said to be indigenous to the island of Juan Fernandez. Another oat, resembling the cultivated variety, is also found growing wild in California.

This plant was introduced into the North American colonies soon after their settlement by the English. It was sown by Gosnold, on the Elizabeth islands, in 1602; cultivated in Newfoundland in 1622, and in Virginia, by Berkeley, prior to 1648.

The oat is a hardy grain, and is suited to climates too hot and too cold either for wheat or rye. Indeed, its flexibility is so great, that it is cultivated with success in Bengal, as low as latitude 25 degrees north, but refuses to yield profitable crops as we approach the equator. It flourishes remarkably well when due regard is paid to the selection of varieties, throughout the inhabited parts of Europe, the northern and central portions of Asia, Australia, southern and northern Africa, the cultivated regions of nearly all North America, and a large portion of South America.

In this country the growth of the oat is confined principally to the middle, western, and northern States. The varieties cultivated are the common white, the black, the gray, the imperial, the Hopetown, the Polish, the Egyptian, and the potato oat. The yield of the common varieties varies from forty to ninety bushels and upwards per acre, weighing from twenty-five to fifty pounds to the bushel. The Egyptian oat is cultivated south of Tennessee, which, after being sown in autumn and fed off by stock in winter and spring, yields from ten to twenty bushels per acre. In the manufacture of malt and spirituous liquors, oats enter but lightly, and their consumption for this purpose does not exceed sixty thousand bushels annually in the United States.

* The fluctuations in the amounts exported in 1845-'46-'47 of this, as well as the other kinds of grain cultivated in this country, were occasioned by the great famine in Ireland, caused by the failure of the potato crops of those years.

The oat, like rye, never has entered much into our foreign commerce, as the domestic consumption has always been nearly equal to the quantity produced. The annual average exports, for several years preceding 1817, were 70,000 bushels.

By the Census returns of 1840, it will be seen that the total produce of the United States was 123,071,341 bushels; of 1850, 146,678,879 bushels.

Rice—the chief food, perhaps, of one-third of the human race—possesses the advantage attending wheat, maize, and other grains, of preserving plenty during the fluctuations of trade, and is also susceptible of cultivation on land too low and moist for the production of most other useful plants. Although cultivated principally within the tropics, it flourishes well beyond, producing even heavier and better filled grain. Like many other plants in common use, it is never found wild, (it is to be understood that the wild rice, or water oat, *Zizania aquatica*, which grows along the muddy shores of our tide-waters, is a distinct plant from the common rice, and should not be confounded with it,) nor is its native country known. Linnæus considers it as a native of Ethiopia, while others regard it of Asiatic origin.

At the Industrial Exhibition in London, last year, there were displayed many curious samples and varieties of rice, grown without irrigation, at elevations of 3,000 to 6,000 feet on the Himalayas, where the dampness of the summer months compensates for the want of artificial moisture. At the exhibition above alluded to, American rice received not only honorable mention for its very superior quality, but the Carolina rice, exhibited by E. J. Heriot, was pronounced by the jury "magnificent in size, color, and clearness," and to it was awarded a prize medal. The jury were free to admit that the American rice, though originally brought from the Old World, is now much the finest in quality.

The common variety is cultivated throughout the torrid zone, wherever there is a plentiful supply of water, and will mature, under favorable circumstances, in the Eastern Continent as high as the forty-fifth parallel of north latitude, and as far south as the thirty-eighth. On the Atlantic side of the Western Continent it will flourish as far north as latitude thirty-eight degrees, and to a corresponding parallel south. On the western coast of America it will grow as far north as forty or more degrees. Its culture is principally confined to India, China, Japan, Ceylon, Madagascar, Eastern Africa, the south of Europe, the southern portions of the United States, the Spanish Main, Brazil, and the valley of Parana and Uruguay.

This grain was first introduced into Virginia by Sir William Berkeley, in 1647, who received half a bushel of seed, from which he raised sixteen bushels of excellent rice, most or all of which was sown the following year. It is also stated that a Dutch brig from Madagascar, came to Charleston in 1694, and left about a peck of paddy (rice in the husk) with Governor Thomas Smith, who distributed it among his friends for cultivation. Another account of its introduction into Carolina is that Ashby was encouraged to send a bag of seed rice to that province, from the crops of which sixty tons were shipped to England in 1698. It soon after became the chief staple of the colony.

Its culture was introduced into Louisiana in 1718, by the "Company of the West."

The present culture of rice in the United States is chiefly confined to South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas. The yield per acre varies from twenty to sixty bushels, weighing from forty-five to forty-eight pounds when cleaned. Under favorable circumstances, as many as ninety bushels to an acre have been raised.

Another variety is cultivated in this country, to a limited extent, called Cochinchina, dry or mountain rice, from its adaptation to a dry soil without irrigation. It will grow several degrees further north or south than the Carolina rice, and has been cultivated with success in the northern provinces of China, Hungary, Westphalia, Virginia, and Maryland; but the yield is much less than that of the preceding, being only fifteen to twenty bushels to an acre. It was first introduced into Charleston from Canton, by John Bradby Blake, in 1772.

The amount of rice exported from South Carolina in 1724 was 18,000 barrels; in 1731, 41,957 barrels; in 1740, 90,110 barrels; in 1747-48, 55,000 barrels; in 1754, 104,682 barrels; in 1760-61, 100,000 barrels; from Savannah in 1755, 2,299 barrels, besides 237 bushels of paddy, or rough rice; in 1760, 3,283 barrels, besides 208 bushels of paddy; in 1770, 22,120 barrels, besides 7,064 bushels of paddy; from Philadelphia in 1771, 258,375 pounds. The amount exported from this country, in 1770, was 150,529 barrels; in 1791, 96,980 tierces; in 1800, 112,056 tierces; in 1810, 131,341 tierces; in 1820-21, 88,221 tierces; in 1830-31, 116,517 tierces; in 1840-41, 101,617 tierces; in 1845-46, 124,007 tierces; in 1846-47, 144,427 tierces; in 1850-51, 105,590 tierces.

According to the Census of 1840, the rice crop of the United States amounted to 80,841,422 pounds; of 1850, 215,312,710 pounds.

Tobacco.—Tobacco, from the extent to which it is cultivated, its importance in commerce, and the modes of employing it to gratify the senses, exhibits one of the most remarkable features in the history of man. From the solace only of the wild Indian of America, it has become one of the luxuries of the rich, and gives pleasure to the poor throughout the habitable globe, from the burning desert to the frozen zone. In short, its use for snuff, for chewing, or for smoking, is almost universal, and for no other reason than a sort of convulsion, (sneezing), produced by the first, and a degree of intoxication by the last two modes of usage. This plant is indigenous to tropical America, and was cultivated by the aborigines in various parts of the continent previous to its discovery by Europeans. Columbus found it on the island of Cuba, in 1492, where he was invited by a chief to partake of a cigar. In 1496, Romanus Pane published the first account of it as growing in St. Domingo, calling it *cohoba*, *cohobla*, and *giová*. Sir Richard Grenville found it in Virginia, in 1585, when the English, for the first time, saw it smoked by the natives in pipes made of clay. It is believed to have been introduced into England by Raleigh's colonists on their return from Virginia, in 1586. Soon after the settlement of Jamestown, from the increased demand in Europe, and the peculiar adaptation of the soil to its culture, considerable quantities were raised, and numerous

individuals, interested in the colony, contributed to induce that taste for it which had already been diffused among all classes.

In 1611, tobacco was first cultivated in Virginia by the use of the spade; previous to which, it had only been raised after the rude manner of the Indians. In 1616, it was cultivated in that colony to so alarming an extent that even the streets of Jamestown were planted with it, and various regulations were framed to restrain its production; but every admonition to the settlers was disregarded. James I. attempted, by repeated proclamations and publications, to restrain its use, but his efforts had very little effect; and the colonists continued to experience a more rapidly-increasing and better demand for this staple than for any other in the province.

Previous to the war of Independence, its culture had spread into Maryland, Carolina, Georgia, and Louisiana, from which nearly all Europe was supplied; but at present, most of the sovereigns of the Old World derive a considerable part of their revenue from the cultivation of this plant.

Independent of its production in the middle and southern States of the Union, tobacco is extensively cultivated in Mexico, the Spanish Main, Cuba, Brazil, Trinidad, St. Domingo, Turkey, Persia, India, China, Australia, the Philippines, and Japan. It has also been raised with success in nearly every country in Europe, Egypt, Algeria, the Cape of Good Hope, the Canaries and numerous other islands in the ocean, Canada, New Brunswick, and on the western coast of America.

The principal varieties cultivated in the United States are the Virginian, the large-leaved, the dwarf, the Cuba, and the common green tobacco.

In 1622, there were raised in Virginia 60,000 pounds. The amount exported from that colony in 1639 was 120,000 pounds; annually for ten years preceding 1709, 28,868,666 pounds; annually for several years preceding the Revolution, 55,000 hogsheads; in 1758, 70,000 hogsheads; from North Carolina, in 1753, 100 hogsheads; from Georgia, in 1772, 176,732 pounds. The amount exported from the United Colonies in 1772 was 97,799,263 pounds; in 1780, 17,424,267 pounds; from the United States, in 1787, 99,041,000 pounds; in 1791, 101,272 hogsheads, 81,122 pounds manufactured, and 15,689 pounds of snuff; in 1800, 78,680 hogsheads, 457,713 pounds manufactured, and 41,453 pounds of snuff; in 1810, 84,134 hogsheads, 495,427 pounds manufactured, and 46,640 pounds of snuff; in 1820-'21, 66,858 hogsheads, 1,332,949 pounds manufactured, and 44,552 pounds of snuff; in 1830-'31, 86,718 hogsheads, 3,639,856 pounds manufactured, and 27,967 pounds of snuff; in 1840-'41, 147,828 hogsheads, 7,503,644 pounds manufactured, and 68,553 pounds of snuff; in 1850-51, 95,945 hogsheads, 7,235,358 pounds manufactured, and 37,422 pounds of snuff.

According to the Census returns of 1840, the amount of tobacco raised in the United States was 219,163,319 pounds; of 1850, 199,752,646 pounds; showing a decrease in its culture of 19,410,673 pounds.

Cotton.—Cotton, which administers so bountifully to the wants of civilized as well as to savage man, and to the wealth and economy of the countries producing it, stands pre-eminent in the United States, both as regards its superior staple and the degree of perfection to which its

cultivation has been brought. One or more of its species is found growing wild throughout the torrid zone, whence it has been disseminated, and become an important object of culture in several countries thereto adjacent, from time immemorial. It is mentioned by Herodotus as growing in India, where the natives manufactured it into cloth; by Theophrastus as a product of Ethiopia; and by Pliny as growing in Egypt, towards Arabia, and near the borders of the Persian Gulf. Nieuhoff, who visited China in 1655, says that it was then cultivated in great abundance in that country, where the seed had been introduced about five hundred years before. Columbus found it in use by the American Indians of Cuba in 1492; Cortez, by those of Mexico, in 1519; Pizarro and Almagro, by the Incas of Peru, in 1532; and Cabeça de Vaca, by the natives of Texas and California, in 1536.

Of the precise period of the first introduction of the cultivation of this plant into the North American colonies, history is silent. In a pamphlet entitled "Nova Britannia offering most excellent fruits by planting in Virginia," published in London in 1609, it is stated that cotton would grow as well in that province as in Italy. It is also stated, on the authority of Beverley, in his History of Virginia, that Sir Edmund Andros, while governor of the colony, in 1692, "gave particular marks of his favor towards the propagating of cotton, which, since his time, has been much neglected." It further appears that it was cultivated for a long time in the eastern parts of Maryland, Virginia, Carolina, and Georgia, in the garden, though not at all as a planter's crop, for domestic consumption. In another pamphlet, entitled "A State of the Province of Georgia, attested upon oath, in the Court of Savannah," in 1740, it was averred that "large quantities have been raised, and it is much planted; but the cotton, which in some parts is perennial, dies here in the winter; which, nevertheless, the annual is not inferior to in goodness, but requires more trouble in cleansing from the seed." About the year 1742, M. Dubreuil invented a cotton gin, which created an epoch in the cultivation of this product in Louisiana. During the Revolution, the inhabitants of St. Mary's and Talbot counties, in Maryland, as well as those of Cape May county, New Jersey, raised a sufficient quantity of cotton to meet their wants for the time. It was formerly produced in small quantities, for family use, in the county of Sussex, in Delaware, near the headwaters of the Choptank.

The seed of the Sea Island cotton was originally obtained from the Bahama islands, in about the year 1785, being the kind then known in the West Indies as the "Anguilla cotton." It was first cultivated by Josiah Tattnall and Nicholas Turnbull, on Skidaway island, near Savannah; and subsequently by James Spaulding and Alexander Bisset, on St. Simon's island, at the mouth of the Altamaha, and on Jekyl island, by Richard Leake. For many years after its introduction, it was confined to the more elevated parts of these islands, bathed by the saline atmosphere, and surrounded by the sea. Gradually, however, the cotton culture was extended to the lower grounds, and beyond the limits of the islands to the adjacent shores of the continent, into soils containing a mixture of clay; and lastly into coarse clays, deposited along the great rivers, where they meet the ocean tides.

Previous to 1794—the year after the invention of Whitney's saw gin

—the annual amount of cotton produced in North America was comparatively inconsiderable; but since that period, there is probably nothing recorded in the history of industry, including its manufacture in this country and Europe, that would compare with its subsequent increase.

In the Eastern hemisphere, the growth of cotton is principally restricted to the maritime countries lying between the 40th degree of north latitude and a corresponding parallel south. On the easterly side of the Western Continent, this plant will perfect its growth in most of the districts adjacent to the tidal waters, including the regions bordering on the Mississippi, the Amazon, and the Parana, between latitude 39 degrees north and 40 degrees south; and on the west coast of America, between the 40th parallel north and a corresponding degree south.

The growth of this staple is chiefly confined to India, China, Japan, Australia, Persia, Turkey, southern Europe, Arabia, Egypt, Algeria, southern and western Africa, the southern section of the United States, British Guiana, New Granada, Venezuela, Peru, Brazil, Uruguay, the West Indies, and numerous other ocean isles.

According to Dr. Royle, who has recently investigated the subject, the different varieties of cotton may be classed under four distinct species, in the following manner:

1. *Gossypium indicum*, or *herbaceum*—the cotton plant of India, China, Arabia, Persia, Asia Minor, and some parts of Africa.

2. *Gossypium arboreum*—a tree cotton, indigenous to India.

3. *Gossypium barbadense*—the Mexican or West Indian cotton, of which the Sea Island, New Orleans, and upland Georgia, are varieties. It was long since introduced into the island of Bourbon, and thence into India; hence it acquired the name of "Bourbon cotton."

4. *Gossypium peruvianum*, or *accuminatum*—which yields the Perambuco, Peruvian, Maranham, and Brazilian cotton, especially distinguished by its black seeds, which adhere firmly together. This variety has long since been introduced into India.

The chief varieties cultivated in the United States are the black seed, or Sea Island, (*G. arboreum*), known, also, by the name of "long-staple," from its fine, white, silky appearance and long fibres; the green seed, (*G. herbaceum*), called "short staple," from its shorter, white staple, with green seeds, and commercially known by the name of "upland cotton;" and two kinds of Nankin or yellow, (*G. barbadense*), the Mexican and Petit gulf. The average yield is about five hundred pounds per acre.

The earliest record of sending cotton from this country to Europe is in the table of exports from Charleston, in 1747-'48, when seven bags were shipped; another parcel, consisting of 2,000 pounds, was shipped in 1770; and a third shipment of seventy-one bags was made in 1784, which England seized, on the ground that America could not produce a quantity so great. The amount exported from the United States in 1791 was 139,316 pounds; in 1793, 487,600 pounds; in 1794, 1,601,760 pounds; in 1795, 6,276,300 pounds; in 1800, 17,789,803 pounds; in 1810, 93,261,462 pounds; in 1820-'21, 124,893,405 pounds; in 1830-'31, 276,979,784 pounds; in 1840-'41, 530,204,100 pounds; in 1850-'51, 927,237,039 pounds.

According to the Census returns of 1840, the amount cultivated was

790,479,275 pounds; of 1850, 987,449,600 pounds; showing an increase of 196,970,325 pounds.

It appears that the culture of cotton is rapidly diminishing in Virginia and North Carolina. In those States it is doubtless giving place to other productions of the soil. There has been a very heavy falling off, also, in Louisiana, and no appreciable increase in Mississippi; but the diminution in the former State, and the failure of any advance in the latter, are accounted for by the terrible inundations of the Mississippi and its tributaries. But for that calamity, it is probable that their increased yield would have equalled that of Alabama, which now occupies the first place as a cotton-planting State, and has almost doubled its production since 1840. Immense as the extent and value of this crop has become, it is not extravagant to anticipate a rate of increase for the current decennial period, which will bring up the aggregate for the year 1860 to 4,000,000 bales.

The average annual yield for the five years ending with 1835, was estimated at 1,055,000 bales; for the same period ending in 1840, 1,440,000 bales; for a like period terminating with 1850, 2,270,000 bales. Had no disturbing cause interrupted the progressive advance, the amount of 1850 would have exceeded 3,000,000 bales.

Wool.—Analogous in the uses for which it serves to cotton, wool is a product of only less importance to the prosperity of the country than that leading staple of our agriculture and commerce.

It is a very gratifying fact that though the number of sheep has increased in ten years but 12 per cent., the aggregate weight of their fleeces has augmented 46 per cent.

In 1840, there were 19,311,374 sheep, yielding 35,802,114 pounds of wool, equal to 1.84 pound per head.

In 1850, the average weight of each fleece was 2.43 pounds, from which it would appear that such an improvement had taken place in the various breeds of the American sheep as to increase their average product about 32 per cent. throughout the United States. And a critical analysis of the returns of sheep and wool proves not only that our breeds are capable of such improvement, but that it has actually taken place.

In Vermont, the greatest attention has been given to sheep-breeding; time, money, and intelligence having been freely applied to the great object of obtaining a breed combining weight and fineness of fleece. These efforts have succeeded so well, that although the number of sheep in that State had declined nearly one-half in the period from the Sixth to the Seventh Census, the yield of wool remained nearly the same. The average weight of the fleece in this State in 1840 was 2.2 pounds, and in 1850 it had increased to 3.71, the gain being almost equal to 70 per cent.

In Massachusetts, also, where strenuous exertions have been made—though not on so large a scale as in Vermont—to improve their sheep, a correspondingly beneficial result has been obtained, and the average weight of the fleece has been increased from 2.5 to 3.1 pounds.

The State of New York produced 226,000 pounds more wool in 1850, from 3,453,000 sheep, than from 5,118,000 in 1840, showing that the weight of the fleece had been raised from less than two to nearly three pounds.

Our imports of wool during the past ten years have varied as follows:

Quantity and value of wool imported into the United States from 1841 to 1850, inclusive.

Date.	Quantity in pounds.	Value in dollars.
1841	15,006,410	\$1,091,953
1842	11,420,958	797,482
1843—9 months.....	3,517,100	245,000
1844	14,008,000	851,460
1845	23,833,040	1,689,794
1846	16,558,247	1,134,226
1847	8,460,109	555,622
1848	11,341,429	857,034
1849	17,869,022	1,177,347
1850	18,669,794	1,681,691

By this statement it is shown that the quantity of wool brought into the country of late years amounts to almost one-third of that produced in it, while at former periods, as from 1841 to 1845, the amount was nearly one-half. The largest proportion of this imported wool came from Buenos Ayres and the neighboring States on the Rio de la Plata, and is of a coarse and cheap variety, costing from six to eight cents per pound. It always will be cheaper to bring this kind of wool from regions where sheep are reared without care or labor, than to produce it at home; but there is no country in the world in which sheep may, by judicious treatment, be made a source of greater wealth and comfort to its inhabitants than the United States.

The importations of wool in 1850-51 exhibit a remarkable increase over the preceding or any former year, amounting in quantity to 32,548,693 pounds, and to the value of \$3,800,000.

Beans and Peas.—Various kinds of pulse, from the facility with which they are produced in almost every country of the globe, and the highly nutritive properties which they usually possess, have been a favorite food for man and animals among all nations, and in every age of the world. Thus we find that the Athenians employed sodden beans in their feasts dedicated to Apollo, and that the Romans presented them as an oblation in their solemn sacrifice called "Fabaria." Pliny informs us that they offered bean-meal cakes to certain gods and goddesses in these ancient rites and ceremonies; and Lempriere states that bacon was added to beans in the offerings to Cama, not so much to gratify the palate of that goddess as to represent the simplicity of their ancestors.

The bean came originally from the East, and was cultivated in Egypt and Barbary in the earliest ages of which we have any records. It was brought into Spain and Portugal in the early part of the eighth century, whence some of the best varieties were introduced into other parts of Europe, and finally into the United States.

The first beans introduced from Europe into the British North Amer-

ican colonies were by Captain Gosnold, in 1602, who planted them on the Elizabeth islands, near the coast of Massachusetts, where they flourished well. They were also cultivated in Newfoundland as early as the year 1622; in New Netherlands in 1644; and in Virginia prior to 1648. French, Indian, or kidney beans were extensively cultivated by the Indians of New York and New England long before their settlements by the whites; and both beans and peas, (calavances,) of various hues, were cultivated by the natives of Virginia prior to the first landing of Captain John Smith. Among these were embraced the celebrated cow pea, (*Phaseolus*,) or Indian pea, at present so extensively cultivated at the South for feeding stock, as well as for the purposes of making into fodder, and for ploughing under, like clover, as a fallow crop.

The varieties of beans cultivated at present in the United States, as field and garden crops, are too numerous to admit of repetition in this report. For field culture, the common small white, the red-eyed China, the turtle-soup, the Mohawk, and the refugee are preferred; for garden culture, the Mohawk, the early six-weeks, the early Valentine, the yellow six-weeks, the black Valentine, the royal white kidney, the Carolina, or Sewee, the cranberry, the London horticultural, and the Dutch caseknife. The yield usually varies from thirty to sixty bushels per acre, weighing sixty-three pounds to the bushel.

The common pea is supposed to have been indigenous to the south of Europe, and was cultivated both by the Greeks and Romans. Its introduction into the British North American colonies probably dates back to the early periods of their settlement by Europeans, as it is enumerated in several instances among the cultivated products of this country by our early historians.

The cultivation of the pea, as a field crop, is principally confined to the middle, eastern, and western States, the varieties of which are distinguished as the early and the late ripening. The early varieties are generally small and dark-colored, among which the grey and grass are the most common. The yield varies from twenty-five to forty bushels per acre, weighing sixty-four pounds to the bushel. The marrow-fats are among the richest of the field peas, which are much preferred for good lands. The small yellow are thought to be best for poorer soils. A very prolific "bush pea" is cultivated in the southern States, bearing pods six or seven inches in length, which hang in clusters, and are filled with fine white peas, much esteemed for the table, either green or dry.

The amount of peas exported from Savannah, in 1755, was 400 bushels; in 1770, 601 bushels; from Charleston, in 1754, 9,162 bushels; from North Carolina, in 1753, 10,000 bushels; annually from Virginia, before the Revolution, 5,000 bushels; annually from the United States, twenty years preceding 1817, 90,000 bushels. The amount of beans annually exported during the last-named period from 30,000 to 40,000 bushels.

Buckwheat.—Buckwheat is cultivated in almost every part of the temperate and arctic climates of the civilized world for the farinaceous albumen of its seeds, which, when properly cooked, affords a delicious article of food to a large portion of the human race. It also serves as

excellent fodder to milch cows, and the straw, when cut green and converted into hay, as well as the ripened seeds, are fed to cattle, poultry, and swine. It is believed to be a native of central Asia, as it is supposed to have been first brought to Europe in the early part of the twelfth century, at the time of the Crusades for the recovery of Syria from the dominion of the Saracens; while others contend that it was introduced into Spain by the Moors, four hundred years before.

This grain appears not to have been much cultivated in this country prior to the last century, as it is not often mentioned by writers on America previous to that period. Holm, in his History of Pennsylvania, (Nieu Swedeland,) published at Stockholm in 1702, mentions it among the productions of that province; and Kalm, the Swedish naturalist, who visited this country in 1748-'49, speaks of it as growing in Pennsylvania, New Jersey, and New York; and several American writers on agricultural subjects have treated of it since.

The cultivation of buckwheat, in one or other of its species, is principally confined to Great Britain, France, Switzerland, Italy, Netherlands, Germany, Sweden, Russia, China, Tartary, Japan, Algeria, Canada, and the middle and northern portions of the United States.

In this country, from thirty to forty-five bushels per acre may be considered as an average yield in favorable seasons and situations, but sixty or more bushels are not unfrequently produced.

This grain heretofore has never entered into our foreign commerce. According to the Census returns of 1840, the annual quantity raised in the United States was 7,291,743 bushels; of 1850, 8,956,916 bushels.

Barley.—Barley, like wheat, has been cultivated in Syria and Egypt for more than three thousand years; and it was not until after the Romans adopted the use of wheaten bread, that they fed this grain to their stock. It is evidently a native of a warm climate, as it is known to be the most productive in a mild season, and will grow within the tropics at an elevation of three or four thousand feet above the level of the sea. It is one of the staple crops of northern and mountainous Europe and Asia.

The introduction of barley into the North American colonies may be traced back to the periods of their settlements. It was sown by Gosnold, together with other English grains, on Martha's Vineyard and the Elizabeth islands, in 1602, and by the colonists in Virginia in 1611. By the year 1648, it was raised in abundance in that colony; but soon after, its culture was suffered to decline in consequence of the more profitable and increased production of tobacco. It has also been sparingly cultivated in the regions of the middle and northern States for malting and distillation, and has been employed, after being hulled, as a substitute for rice. Although believed to have been indigenous to the countries bordering on the torrid zone, this grain possesses the remarkable flexibility of maturing, in favorable seasons and situations, on the Eastern Continent, as far north as seventy degrees, and flourishes well in latitude forty-two degrees south. Along the Atlantic side of the continent of America, its growth is restricted to the tract lying between the thirtieth and fiftieth parallels of north latitude, and between thirty and forty degrees south. Near the westerly coast its range lies principally between latitude twenty and sixty-two degrees north.

Barley is at present extensively cultivated in the temperate districts and islands of Europe, Asia, Africa, and Australia. In Spain, Sicily, the Canaries, Azores, and Madeira, two crops are produced in a year. In North America, its growth is principally confined to Mexico, the middle, western, and northern States of the Union, and to Canada, New Brunswick, Nova Scotia, and Newfoundland.

The barley chiefly cultivated in the United States is the two-rowed variety, which is generally preferred, from the fulness of its berry and its freedom from smut. The yield varies from thirty to fifty, or more, bushels per acre, weighing from forty-five to fifty-five pounds to the bushel.

Barley has never been much exported from this country, as we have been consumers rather than producers of this grain. In 1747-'48, there were shipped from Charleston to England, fifteen casks.

The consumption of barley for the past year in the manufacture of malt and spirituous liquors amounted to 3,780,000 bushels.

According to the Census returns of 1840, the annual amount of barley raised in the United States was 4,161,504 bushels; of 1850, 5,167,016 bushels.

Potatoes.—The common English or Irish potato, (*Solanum tuberosum*,) so extensively cultivated throughout most of the temperate countries of the civilized globe, contributing, as it does, to the necessities of a large portion of the human race, as well as to the nourishment and fattening of stock, is regarded as of but little less importance in our national economy than maize, wheat, or rice. It has been found in an indigenous state in Chili, on the mountains near Valparaiso and Mendoza; also near Montevideo, Lima, Quito, as well as in Santa Fé de Bogota, and more recently in Mexico, on the flanks of the Orizaba.

The history of this plant, in connexion with that of the sweet potato, is involved in obscurity, as the accounts of their introduction into Europe are somewhat conflicting, and often they appear to be confounded with one another. The common kind was doubtless introduced into Spain in the early part of the sixteenth century, from the neighborhood of Quito, where, as well as in all Spanish countries, the tubers are known as *papas*. The first published account of it we find on record is in *La Cronica del Peru*, by Pedro de Cieca, printed at Seville, in 1553, in which it is described, and illustrated by an engraving. From Spain it appears to have found its way into Italy, where it assumed the same name as the truffle. It was received by Clusius, at Vienna, in 1598, in whose time it spread rapidly in the south of Europe, and even into Germany. To England it is said to have found its way by a different route, having been brought from Virginia by Raleigh's colonists in 1586, which would seem improbable, as it was unknown in North America at that time, either wild or cultivated; and, besides, Gough, in his edition of Camden's *Britannia*, says it was first planted by Sir Walter Raleigh on his estate at Youghall, near Cork, and that it was cultivated in Ireland before its value was known in England. Gerard, in his *Herbal*, published in 1597, gives a figure of this plant, under the name of *Batata Virginiana*, to distinguish it from the sweet potato, *Batata Edulis*, and recommends the root to be eaten as a "delicate dish," but not as a common food. "The sweet potato," says Sir Joseph Banks,

"was used in England as a delicacy long before the introduction of our potatoes; it was imported in considerable quantities from Spain and the Canaries, and was supposed to possess the power of restoring decayed vigor." It is related that the common potato was accidentally introduced into England from Ireland at a period somewhat earlier than that noticed by Gerard, in consequence of the wrecking of a vessel on the coast of Lancashire, which had a quantity on board. In 1663, the Royal Society of England took measures for encouraging the cultivation of this vegetable, with the view of preventing famine. Notwithstanding its utility as a food became better known, no high character was attached to it; and the writers on gardening towards the end of the seventeenth century, a hundred years or more after its introduction, treated of it rather indifferently. "They are much used in Ireland and America as bread," says one author, "and may be propagated with advantage to poor people." The famous nurserymen, London and Wise, did not consider it worthy of notice in their *Complete Gardener*, published in 1719. But its use gradually spread, as its excellencies became better understood. It was near the middle of the last century before it was generally known either in Britain or North America, since which it has been most extensively cultivated.

The period of the introduction of the common potato into the British North American colonies is not precisely known. It is mentioned among the products of Carolina and Virginia in 1749, and among those growing in New York and New England the same year.

The culture of this plant extends through the whole of Europe, a large portion of Asia, Australia, the southern and northern parts of Africa, and the adjacent islands. On the American Continent, with the exception of some sections of the torrid zone, the culture of this root extends from Labrador on the east, and Nootka Sound on the west, to Cape Horn. It resists more effectually than the cereals the frosts of the north. In this country it is principally confined to the northern, middle and western States, where, from the coolness of the climate, it acquires a farinaceous consistence, highly conducive to the support of animal life. It has never been extensively cultivated in Florida, Alabama, Mississippi, nor Louisiana—perhaps from the greater facility of raising the sweet potato, its more tropical rival. Its perfection, however, depends as much upon the soil as on the climate in which it grows; for in the red loam on the banks of Bayou Bœuf, in Louisiana, where the land is new, it is stated that tubers are produced as large, savory, and as free from water, as any raised in other parts of the world. The same may be said of those grown at Bermuda, Madeira, the Canaries, and numerous other ocean isles.

The chief varieties cultivated in the northern States are the Carter, the kidneys, the pink-eyes, the Mercer, the orange, the Sault St. Marie, the Merino, and the western red; in the middle and western States, the Mercer, the long red, or Merino, the orange, and the western red. The yield varies from 50 to 400 bushels and upwards per acre, but generally it is below 200 bushels.

Within the last ten years an alarming disease, or "rot," has attacked the tubers of this plant about the time they are fully grown. It has not

only appeared in nearly every part of our own country, but has spread dismay at times throughout Great Britain and Ireland, and has been felt more or less seriously in every quarter of the globe. To the greater uncertainty attending its cultivation of late years, from this cause, must be attributed the deficiency of the crop of 1849 as compared with that of 1839. This is one of the four agricultural products which, by the present Census, appears smaller than it was ten years since.

Sweet Potato.—The sweet potato (*Batatas edulis*) is a native of the East Indies, and of inter-tropical America, and was the "potato" of the old English writers in the early part of the fourteenth century. It was doubtless introduced into Carolina, Georgia, and Virginia, soon after their settlement by the Europeans, being mentioned as one of the cultivated products of those colonies as early as the year 1648. It grows in excessive abundance throughout the southern States, and as far north as New Jersey and the southern part of Michigan.

The varieties cultivated are the purple, the red, the yellow, and the white, the former of which is confined to the South.

The amount of sweet potatoes exported from South Carolina in 1747-'48 was 700 bushels; that of the common potato exported from the United States in 1820-'21, 90,889 bushels; in 1830-'31, 112,875 bushels; in 1840-'41, 136,095 bushels; in 1850-'51, 106,342 bushels.

According to the Census returns of 1840, the quantity of potatoes, of all sorts, raised in the Union, was 108,298,060 bushels; of 1850, 104,055,989 bushels, of which 38,259,196 bushels were sweet.

American Wine.—The extent of our territory over which the wine culture may be advantageously diffused, has long afforded a subject of much speculation. It early attracted the attention of the first colonists, who not only attempted to form vineyards of the European vine, but to make wine from our own native grapes. Although the subject has been zealously and sedulously pursued at various periods since, all those dwelling on the easterly half of the continent who have made trial of the foreign grape, have never been able to bring their designs to perfection; and those who have tested their skill in our native varieties have only met with partial success, yet, a degree of perseverance and enthusiasm seems to have pervaded all the votaries of this delightful pursuit, and a warm and mutual interchange of views and sentiments has existed among them, which has been comparatively unknown in other species of culture. Although the operators in recent times, from being interspersed over so great an extent of territory, are consequently more widely separated, still the connecting link, by a friendly co-operation in one common cause, may justly and appropriately assimilate their united exertions to that joyous period in the history of France when, during the reign of Probus, thousands of all ages and sexes united in one spontaneous and enthusiastic effort for the restoration of their vineyards. Indeed, when the far greater limits of our domain are considered, the combined efforts of our fellow-countrymen cannot fail to produce effects even more important, from the great extent of their influence, and cause each section of our republic reciprocally to respond to the efforts of others, with all their attendant advantages and blessings.

The earliest attempt to establish a vineyard in the British North American colonies was by the "London Company," in Virginia, prior to 1620. By the year 1630, the prospects were sufficiently favorable to warrant the importation of several French *vignerons*, who, it was alleged, ruined them by bad management. Wine was also made in Virginia in 1647; and in 1651, premiums were offered for its production. On the authority of Beverley, who wrote prior to 1722, there were vineyards in that colony which produced 750 gallons a year.

Beauchamp Plantagenet, in his "Description of the Province of New Albion," published in London in 1648, states that the English settlers in Uvedale, (now in Delaware,) had vines running on mulberry and sassafras trees, and that there were four kinds of grapes. "The first," says he, "is the Tholouse Muscat, sweet scented; the second, the great foxe and thick grape, after five moneths reaped, being boyled and salted, and well fined, it is a strong red Xeres; the third, a light claret; the fourth, a white grape, creeps on the land, maketh a pure gold-color wine: Tennis Pale, the Frenchman, of these four, made eight sorts of excellent wine; and of the Muscat, acute boyled, that the second draught will fox [intoxicate] a reasonable pate, four moneths old; and here may be gathered and made two hundred tun in the vintage moneth, and replanted, will mend."

An attempt to establish a vineyard near Philadelphia was made by William Penn, in 1683; also by Andrew Dore, in 1685; but neither succeeded.

In 1769, the French settlers on Illinois river made upwards of 100 hogsheads of strong wine from the American wild grape.

The quantity of wine annually produced in the United States has become a subject of some discussion since the appearance of the return in the Seventh Census on that interest. The Census of 1840 gave 124,000 gallons as the produce of that year. It has been stated in the public prints that since that period the culture of the grape, and the manufacture of wine therefrom, have grown into a business of considerable importance in the States bordering on the Ohio river, and that several hundred acres have been planted in vineyards in that valley, which yield at the rate of more than 45,000 gallons of wine a year. The total product of the Union, in 1850, was given at 221,249 gallons. But during the intervening period there had been added to our own territory California and New Mexico, which, in the latter year, produced 60,718 gallons. This quantity deducted from the aggregate, leaves 160,531 gallons for the portion of the Union covered by the returns of 1840—indicating a gain of only 36,000 gallons. This is probably an understatement, but it seems to prove that no considerable progress has yet been made towards supplying, by a home production, the demand, to meet which, importations of foreign wines to a very large amount are annually made.

The consumption of wine in the United States, though by no means general, amounts in the aggregate to a large sum. The imports during the year ending June, 1851, were 6,160,000 gallons, of which, probably, three-fourths consisted of the wines of France. The value or invoice cost of the article was \$2,370,000. The average consumption of foreign wines was, therefore, in quantity, but about one-quarter of

a gallon for each person, and in value only ten cents. The coincidence is somewhat remarkable, that this is almost precisely the rate of consumption of imported wine among the people of Great Britain. But in France, according to official returns, there is produced and retained for consumption 900,000,000 gallons of wine, allowing $25\frac{1}{2}$ gallons to each person in the population.

It appears, from other tables in our Census returns, that the quantity of ale and spirituous liquors produced in the United States, in 1850, exceeded 86,000,000 gallons. The amount exported was balanced by the imports, and the quantity rejected, in forming the above estimate, for the sake of preserving round numbers; the consumption of malt and spirituous liquors for manufacturing purposes, and as a beverage, appears to have been at the rate of nearly four gallons per head. It is the opinion of many, whose inquiries upon the subject entitle them to respect, that among what are called "civilized" nations, the vice of inebriation has always been found to prevail most extensively where the vine is not cultivated; while, on the other hand, where this species of culture is widely disseminated, the temperance of the people is proverbial. If such be the case, we may proudly hope that the day is not far distant when America will fully establish and claim a rivalry with the most favored land of the vine and the olive, and exultingly disclaim being tributary to any foreign clime.

Pounds of Hops produced.—A gratifying increase has taken place in the culture of this useful article. The gain has been nearly 200 per cent. Almost the whole of the increment, however, has been in the State of New York, which, from less than half a million of pounds in, 1840, now produces more than two and a half millions, which exceeds five-sevenths of the whole crop of the United States.

In connexion with this circumstance, it may be mentioned that New York also stands foremost in the production of ale, beer, and porter, in the manufacture of which the larger part of the hops raised is consumed. The breweries of this State produced 645,000 barrels of ale, &c., in 1850, being more than a third of the quantity returned for the whole Union.

Flax and Hemp.—During the last half century great efforts have been made in Europe, and to some extent, of late, in the United States, to increase and improve the production and manufacture of flax and hemp. Formerly they were considered as indispensable crops among our planters and farmers; but their use has been superseded, in a measure, by the cotton of the South.

Common flax is a native of Britain, where it has been cultivated from time immemorial, and, from its hardihood and adaptation to a wide range of temperature, it has been grown in almost every country on the Eastern Continent, from Egypt to the polar circle, and in North America, from Texas to Newfoundland.

Hemp—which is supposed to be a native of India, but long since acclimatized and extensively cultivated in Spain, Italy, and several other countries in Europe, particularly in Poland and Russia, as well as in different parts of America—also forms an article of primary importance in commerce, and is of extensive utility.

Both of these products were introduced into the North American

colonies soon after their settlement by the English. They are mentioned as growing in New England prior to 1632, and bounties were offered for their cultivation in Virginia as early as 1751. Captain Matthews sowed, yearly, both hemp and flax, which he caused to be spun and woven, prior to the year 1648. In 1662 an edict was passed requiring each poll in Virginia to raise annually and manufacture six pounds of linen thread; but, from the change of the laws and the cessation of the bounties, the culture declined.

In the late Exhibition at London of the Works of Industry of All Nations, both of these materials held a conspicuous rank. Flax was exhibited, the growth of Great Britain, Ireland, Holland, Belgium, France, Spain, Portugal, Italy, Prussia, Germany, Poland, Russia, Turkey, Egypt, India, Van Dieman's Land, Canada, and the United States, and hemp from all of these countries except Britain, Ireland, Canada, and Van Dieman's Land.

The fibre of flax and hemp has never been produced in this country in sufficient abundance to form much of an article of foreign commerce, but flax-seed was formerly shipped to Europe in large quantities. There were exported from New Jersey, in 1751, 14,000 pounds of hemp; from Savannah, in 1770, 1,860 pounds; from the United States, in 1850-'51, 4,769 hundred weight. The amount of flax seed exported from Philadelphia in 1752 was 70,000 bushels; in 1767, 84,658 bushels; in 1771, 110,412 bushels; from New York, in 1755, 12,528 hogsheads; from the British North American colonies, in 1770, 312,612 bushels; from the United States, in 1791, 292,460 bushels; in 1800, 289,684 bushels; in 1810, 240,579 bushels; in 1820-'21, 264,310 bushels; in 1830-'31, 120,702 bushels; in 1840-'41, 32,243 bushels; in 1850-'51, 9,185 bushels.

According to the Census returns of 1840, there were raised in the United States 95,251½ tons of flax and hemp; of 1850, 35,093 tons of hemp and 7,715,961 pounds of flax.

The correctness of the returns as to hemp, in the Seventh Census, has not yet been perfectly verified. There has been some doubt whether, in a number of instances, the marshals have not written *tons* where they meant *pounds*. If, however, the returns are allowed to stand without reduction, it would appear that the cultivation of hemp or flax has materially changed since 1840. In the returns of that year, as stated above, both of these articles were included under the same head. In 1840, those of Virginia gave 25,594 tons of hemp and flax together. In 1850, only 141 tons of hemp and 500 tons of flax were returned. Such a falling off would amount to almost an abandonment of the culture of hemp in that State, which there is no reason to suppose has taken place.

The discovery of new methods for separating the fibrous from the woody parts of the flax plant has doubtless given a vigorous stimulant to its cultivation in the United States. The process of Chevalier Clausen first attracted general attention among us in 1850. Though considerable quantities of flax have been produced in former years, it has been raised principally for the seed, which commanded a remunerating price. The want of a cheap and speedy process for separating

the textile from the refuse parts of the stalk has occasioned a vast annual loss of useful material to the country. Should the attempts which have lately been made to apply Clausen's invention succeed, the production of flax in the United States may become of great importance, and be advantageously used, not only alone, but in the manufacture of mixed fabrics, as it appears capable of being spun with wool, silk, and other fibres.

Silk Cocoons.—The culture and manufacture of silk, like many productions of nature and art, are difficult to trace from their origin. All that we know concerning them is, that they have come to us from the East in a state of comparative perfection. It seems to have been in Asia that silk was first known, and was called *Serica*, from the name of the country in which its use was supposed to have been discovered. The Chinese claim to have manufactured this delicate luxury as early as 2,700 years before the Christian era, at which time their attention was first attracted to the operations of the silk worm on wild mulberry trees. It was soon after found that they thrived much better in rooms than in the open air, and produced cocoons of much larger size and superior quality. From that period the culture of silk rapidly increased, and subsequently became a source of great wealth, and spread from China to India, Persia, and Arabia, where, down to the present time, it has continued to be abundantly produced.

The expedition of Alexander the Great into Persia and India, first brought silk to the knowledge of Europeans, about 350 years before Christ. About the beginning of the sixth century, after the Roman Empire had been transferred to Constantinople, two monks arrived in the court of the Emperor Justinian, from a mission into China, bringing with them the seeds of the mulberry, and communicated the discovery of the mode of rearing silk worms. Although the exportation of the eggs of the insects from China was prohibited on pain of death, by the liberal promises and persuasions of Justinian, they were induced to undertake to import some from that country; returning from the expedition through Bucharria and Persia, in the year 555, with the eggs of the precious insect, which they had obtained, concealed in the hollow of their canes, or pilgrim staves. From Constantinople, the silk culture spread into Arabia, thence into Spain and Portugal, Greece, Sicily, Italy, and other parts of Europe.

The introduction of this culture into the North American colonies, dates back to the first settlement of Virginia. James L., who was anxious to promote this branch of industry, several times urged the "London Company" to encourage the growth of mulberry trees, and addressed a letter to them on the subject, in 1622, conveying strict injunctions that they should use every exertion for this purpose, and stimulated the colonists to apply themselves diligently and promptly to the breeding of silkworms, and the establishment of silk works, bestowing their labors rather in producing this rich commodity than to the growth of tobacco—an article to which his majesty had recorded and published his violent aversion. The company thus incited, showed much zeal in their endeavors to accomplish the king's wishes. A considerable number of mulberry trees was planted; but little silk was produced, owing to difficulties involved by their dissolution soon after. In about the

year 1651, the rearing of silkworms again became a subject of interest in Virginia, and premiums were offered for its encouragement; but it does not appear that the business was ever prosecuted to any extent.

The silk culture was introduced into Louisiana, in 1718, by the "Company of the West."

In the infant settlement of Georgia, in 1732, a piece of ground belonging to government was allotted as a nursery plantation for white mulberry trees, and the attention of some of the settlers was soon engaged in rearing silkworms. In 1726, a quantity of raw silk was raised in that colony, which was manufactured into a piece of stuff, and presented to the queen.

In 1749, an act of Parliament was passed for encouraging the growth of silk in Georgia and Carolina, exempting the producer from the payment of duties on importation into London. A bounty was also offered for the production of silk, and a man named Ortolengi, from Italy, was employed to instruct the colonists in the Italian mode of management. A few years before the Revolution, considerable quantities of raw material began to be raised, which was said to be equal, in some cases, to the best Piedmont silk, and worked with less waste than the Chinese article.

In Carolina, the culture was undertaken by the small farmers. In 1766, the House of Assembly of this province voted the sum of £1,000 towards the establishment of a silk filature at Charleston, under the direction of Mr. Gilbert.

In Connecticut, attention was first directed to the rearing of silkworms in 1760. Dr. Aspinwall, of Mansfield, from motives of patriotism, used his best exertions to introduce this important branch of rural economy. He succeeded in forming extensive nurseries of the mulberry at New Haven, Long Island, Pennsylvania, and other places. Half an ounce of mulberry seeds was sent to each parish in the colony, with such directions as his knowledge of the business enabled him to impart. In 1783, the legislature of Connecticut passed an act granting a bounty on mulberry trees and raw silk. It here may be stated to the honor of Connecticut, that she is the only State in the Union, which has continued the business without suspension, and probably has produced more silk, from the time of her commencement up to the year 1830, than all the other States.

In the year 1769, on the recommendation of Dr. Franklin, through the American Philosophical Society, a filature of raw silk was established in Philadelphia, by private subscription, and placed under the direction of an intelligent and skilful Frenchman, who, it is said, produced samples of reeled silk not inferior in quality to the best from France and Italy. In 1771, the managers purchased 2,300 pounds of cocoons—all the product of Pennsylvania, New Jersey, and Delaware. The enterprise was interrupted by the Revolution. A similar undertaking was again attempted in Philadelphia, in 1830, under the supervision of M. J. D'Homergue, and cocoons were brought in abundance to the establishment from various parts of the country, and so continued for some time afterwards; but, for want of capital, the enterprise failed.

In about the year 1831, the project of rearing silkworms and estab-

lishing filatures of silk was renewed in various parts of the Union; and the subject was deemed to be of so much importance that it not only attracted the attention of Congress, but afterwards received encouragement from the legislatures of several States, by bounties offered for all the raw silk produced within their limits for certain periods of time. The business soon began to be prosecuted with extreme ardor, and continued for several years, resulting in the establishment of several nurseries of mulberry trees, and ending in the downfall of the famous "Morus Multicaulis speculation," in 1845.

The amount of raw silk exported from Georgia in 1750 was 118 pounds; in 1755, 138 pounds; in 1760, 558 pounds; in 1766, more than 20,000 pounds; in 1770, 290 pounds. From South Carolina, in 1772, 455 pounds. In the year 1765, there were raised on Silk Hope Plantation, in South Carolina, 630 pounds of cocoons; in Mansfield, Connecticut, in 1793, 265 pounds of raw silk; in 1827, 2,430 pounds; in 1831, 10,000 pounds; in Connecticut, in 1844, 176,210 pounds; in the United States, the same year, 396,790 pounds. (See Patent Office Report.)

According to the Census returns of 1840, the amount of silk cocoons raised in the United States was 61,552½ pounds; of 1850, 10,843 pounds. From the above, it is obvious that the production of cocoons has decreased, since 1840, 46,789 pounds; and since 1844, 382,027 pounds.

Sugar.—Sugar, so extensively used in every country of the habitable globe, and forming, as it does, one of our chief staples, supplies its commercial demand mainly from the juice of the cane, which contains it in greater quantity and purity than any other plant, and offers greater facilities for its extraction. Although sugar, identical in its character, exists in the maple, the cocoanut, and the beet-root, and is economically obtained to a considerable extent, yet it is not often sufficiently pure to admit of ready separation from the foreign matter combined with it, at least by the means the producers usually have at hand.

The history of cane sugar, like that of many other necessaries of life, is involved in great obscurity. It appears to have been imperfectly known to the Greeks and Romans, as Theophrastus, who lived 320 years before Christ, describes it as a sort of "honey extracted from canes or reeds." And Strabo, who states on the authority of Nearchus, the commander of the fleet in the expedition of Alexander the Great, says that "reeds in India yield honey without bees." We are also informed that sugar candy has been made in China from very remote antiquity; and that large quantities of it have been exported from India, in all ages, whence it is most probable that it found its way to Rome.

Sugar cane occurs in a wild state on many of the islands of the Pacific, but in no part of the American Continent, notwithstanding a contrary opinion has been expressed. Its cultivation and the manufacture of sugar were introduced into Europe from the East, by the Saracens, soon after their conquests, in the ninth century. It is stated by the Venetian historians, that their countrymen imported sugar from Sicily, in the twelfth century, at a cheaper rate than they could obtain it from Egypt, where it was then extensively made. The

first plantations in Spain were at Valencia, but they were extended to Granada, Murcia, Portugal, Madeira, and the Canary islands, as early as the beginning of the fifteenth century. From Gomera, one of these islands, the sugar cane was introduced into the West Indies by Columbus, in his second voyage to America, in 1493. It was cultivated to some extent in St. Domingo, in 1506, where it succeeded better than in any of the other islands. In 1518, there were twenty-eight plantations in that colony, established by the Spaniards, where an abundance of sugar was made, which, for a long period formed the principal part of the European supplies. Barbadoes, the oldest English settlement in the West Indies, began to export sugar in 1646, and in the year 1676, the trade required four hundred vessels, averaging 150 tons burden.

The introduction of sugar cane into Florida, Texas, California, and Louisiana, probably dates back to their earliest settlement, by the Spaniards or French. It was not cultivated in the latter, however, as a staple product, before the year 1751, when it was introduced with several negroes, by the Jesuits, from St. Domingo. They commenced a small plantation on the banks of the Mississippi, just above the old city of New Orleans. The year following, others cultivated the plant, and made some rude attempts at the manufacture of sugar. In 1758, M. Dubreuil established a sugar estate, on a large scale, and erected the first sugar mill in Louisiana, in what is now the lower part of New Orleans. His success was followed by other plantations, and in the year 1765, there was sugar enough manufactured for home consumption; and in 1770, it had become one of the staple products of the colony. Soon after the Revolution, a large number of enterprising adventurers emigrated from the United States to Lower Louisiana, where, among other objects of industry, they engaged in the cultivation of cane, and by the year 1803, there were no less than eighty-one sugar estates on the Delta alone. Since that period, while the production of cane sugar has been annually increasing at the South, the manufacture of maple sugar has been extending in the North and West.

The common sugar cane is a perennial plant, very sensitive to cold, and is therefore restricted in its cultivation to regions bordering on the tropics, where there is little or no frost. In the Eastern hemisphere its production is principally confined to situations favorable to its growth, being between the fortieth parallel of north latitude and a corresponding degree south. On the Atlantic side of the Western Continent it will not thrive beyond the thirty-third degree of north latitude and the thirty-fifth parallel south. On the Pacific side it will perfect its growth some five degrees further north or south. From the flexibility of this plant, it is highly probable that it is gradually becoming more hardy, and will eventually endure an exposure, and yield a profitable return, much further north, along the borders of the Mississippi, and some of its tributaries, than it has hitherto been produced. In most parts of Louisiana the canes yield three crops from one planting. The first season it is denominated "plant cane," and each of the subsequent growths "ratoons." But sometimes, as on the prairies of Attakapas and Opelousas, and the higher northern range of its cultivation, it re-

quires to be replanted every year. Within the tropics, as in the West Indies, and elsewhere, the ratoons frequently continue to yield abundantly for twelve, fifteen, and even twenty-four years, from the same roots.

The cultivation of this plant is principally confined to the West Indies, Venezuela, Brazil, Mauritius, British India, China, Japan, the Sunda, Philippine, and Sandwich islands, and to the southern districts of the United States. The varieties most cultivated in the latter are the striped blue, and yellow ribbon, or Java; the red ribbon, or violet, from Java; the Creole crystalline, or Malabar; the Otaheite, the purple, the yellow, the purple-banded, and the grey canes. The quantity of sugar produced on an acre varies from five hundred to three thousand pounds; averaging, perhaps, from eight hundred to one thousand pounds.

Hitherto the amount of sugar and molasses consumed in the United States has exceeded the quantity produced; consequently, there has been no direct occasion for their exportation. In the year 1815, it was estimated that the sugar made on the banks of the Mississippi, alone, amounted to ten million pounds. In 1818, the entire crop of Louisiana was only twenty-five million pounds; in 1850, it had reached the enormous quantity of 226,001,000 pounds, besides about twelve million gallons of molasses.

According to the Census of 1840, the amount of cane and maple sugar was 155,100,809 pounds, of which 119,947,720 pounds were raised in Louisiana. By the Census of 1850 the cane sugar made in the United States was 247,581,000 pounds, besides 9,700,606 gallons of molasses; maple sugar, 34,249,886 pounds, amounting to 281,830,886 pounds, showing an increase, in ten years, of 126,730,077 pounds.

Hay and Fodder.—The hay and fodder crops, including the dried blades, shucks, and tops of Indian corn, as well as of the succulent corn plants and other green forage, cultivated solely for *soiling*, or for drying into fodder, chopped straw, the haulm of beans, peas, potatoes, &c., which are by no means inconsiderable, are far the most valuable of any in the United States. The culture of hay is at present principally confined to the eastern, middle, and western States, from which the southern markets are mainly supplied in the form of pressed packages or bales.

In the earlier settlements of the Atlantic States north of Virginia, the cattle of the inhabitants were chiefly dependent upon the wild indigenous grasses—such as the white clover, herd's grass, (red top,) wire grass, Indian grass, (*Andropogon*,) and the coarser herbage of salt marshes, beaver meadows, and other swampy grounds. In the middle and southern colonies they foraged upon the wild herbage of the country, in the same manner as the existing cattle do on the buffalo grass of Louisiana, Texas, New Mexico, &c., as well as on the leaves, boughs, and fruit of trees.

The principal indigenous grasses which have been successfully cultivated in the United States are the Kentucky blue grass, the red top, (herd's grass of Pennsylvania,) the white clover, and the fowl meadow, or bird grass; the latter of which formerly grew in abundance around Massachusetts bay, and was much relished by the cows, hogs, and goats of the early settlers, and upon which they thrived.

Among the foreign cultivated grasses in this country, the Timothy, (herd's grass of New England,) ranks pre-eminent. It is said to have received the name of *Timothy* from its first introducer into Maryland, Mr. Timothy Hanson. It is a native of England, and is cultivated as a favorite in Sweden and other parts of northern Europe. The next in extent of cultivation among our forage crops of foreign origin is the common red clover, which is widely naturalized, and is diligently cultivated by all good farmers. The precise period of its introduction is not known; but, on the authority of Watson, in his "Annals of Philadelphia," John Bartram had fields of it prior to the American Revolution; and, according to Dr. William Darlington, it was introduced into general cultivation in Chester county, Pennsylvania, between the years 1790 and 1800. Its congener, the creeping white clover, indigenous or naturalized in Europe, is extensively cultivated in the middle and northern States from imported seed. The other European grasses, which have been only partially introduced into this country, and which have met with favor, are the cock's-foot, or orchard grass, and the perennial ray grass. The latter affords a tolerably good pasture, and makes a handsome sward for a yard or lawn; but as a meadow grass for hay it is regarded as inferior in value to any of the preceding.

According to the Census returns of 1840, the hay crop of the United States was 10,248,108 $\frac{3}{4}$ tons; of 1850, 13,338,579 tons, showing an increase of 3,590,470 tons.

STATEMENT

OF

AGRICULTURAL PRODUCTIONS, VALUE OF IMPROVED AND UNIM-
PROVED LANDS, AGRICULTURAL IMPLEMENTS, ETC.,

IN

THE UNITED STATES.

Productions of Agriculture in the United States.—Seventh Census—1850.

States and Territories.	ACRES OF LAND IN FARMS.		Cash value of farms.	Value of farming implements and machinery.
	Improved.	Unimproved.		
Maine.....	2,039,596	2,515,797	\$54,861,748	\$2,284,557
New Hampshire.....	2,251,488	1,140,926	55,245,997	2,314,125
Vermont.....	2,601,409	1,524,413	63,367,227	2,739,282
Massachusetts.....	2,133,436	1,222,576	109,076,347	3,209,584
Rhode Island.....	356,487	197,451	17,070,802	497,201
Connecticut.....	1,768,178	615,701	72,726,422	1,892,541
New York.....	12,408,968	6,710,120	554,546,642	22,084,926
New Jersey.....	1,767,991	984,955	120,237,511	4,425,503
Pennsylvania.....	8,628,619	6,294,728	407,876,099	14,722,541
Delaware.....	580,862	375,282	18,880,031	510,279
Maryland.....	2,797,905	1,836,445	87,178,545	2,463,443
District of Columbia.....	16,267	11,187	1,730,460	40,220
Virginia.....	10,360,135	15,792,176	216,401,441	7,021,772
North Carolina.....	5,453,977	15,543,010	67,891,766	3,931,532
South Carolina.....	4,072,651	12,145,049	82,431,684	4,136,354
Georgia.....	6,378,479	16,442,900	95,753,445	5,894,150
Florida.....	349,049	1,236,240	6,323,109	658,795
Alabama.....	4,435,614	7,702,067	64,323,224	5,125,663
Mississippi.....	3,444,358	7,046,061	54,738,634	5,762,927
Louisiana.....	1,590,025	3,939,018	75,814,398	11,576,938

Texas.....	639,107	14,454,669	16,398,747	2,133,731
Arkansas.....	781,531	1,816,684	15,265,245	1,601,296
Tennessee.....	5,175,173	13,808,849	97,851,212	5,360,220
Kentucky.....	11,368,270	10,972,478	154,330,262	5,169,037
Ohio.....	9,851,493	8,146,000	358,758,603	12,750,585
Michigan.....	1,929,110	2,454,780	51,872,446	2,891,371
Indiana.....	5,046,543	7,746,879	136,385,173	6,704,444
Illinois.....	5,039,545	6,997,867	96,133,290	6,405,561
Missouri.....	2,938,425	6,794,245	63,225,543	3,981,525
Iowa.....	824,682	1,911,382	16,657,567	1,172,869
Wisconsin.....	1,045,499	1,931,159	28,528,563	1,641,568
California.....	62,324	3,831,571	3,874,041	103,483
Minnesota.....	5,035	23,846	161,948	15,981
Oregon Territory.....	132,857	299,951	2,849,170	183,423
Utah Territory.....	16,333	30,516	311,799	84,288
New Mexico Territory.....	166,201	124,370	1,653,952	77,960
Aggregate.....	118,457,622	184,621,348	3,270,733,093	151,569,675

Productions of Agriculture in the United States—Continued.

States and Territories.	LIVE STOCK.							Value of live stock.
	Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.	Sheep.	Swine.	
Maine.....	41,721	55	133,556	83,893	125,890	451,577	54,598	\$9,705,726
New Hampshire.....	34,233	19	94,277	59,027	114,606	384,756	63,487	8,871,901
Vermont.....	61,057	218	146,128	48,577	154,143	1,014,122	66,296	12,643,228
Massachusetts.....	42,216	34	130,099	46,611	83,284	188,651	81,119	9,647,710
Rhode Island.....	6,168	1	28,698	8,189	9,375	44,296	19,509	1,532,637
Connecticut.....	26,879	49	85,461	46,988	80,226	174,181	76,472	7,467,490
New York.....	447,014	963	931,324	178,909	767,406	3,453,241	1,018,252	73,570,499
New Jersey.....	63,955	4,089	118,736	12,070	80,455	160,488	250,370	10,679,291
Pennsylvania.....	350,398	2,259	530,224	61,527	562,195	1,822,357	1,040,366	41,500,053
Delaware.....	13,852	791	19,248	9,797	24,166	27,503	56,261	1,849,281
Maryland.....	75,684	5,644	86,859	34,135	98,595	177,902	352,911	7,997,634
District of Columbia.....	824	57	813	104	123	150	1,635	71,643
Virginia.....	272,403	21,480	317,619	89,513	669,137	1,310,004	1,830,743	33,656,659
North Carolina.....	148,693	25,259	221,799	37,309	434,402	595,249	1,812,813	17,717,647
South Carolina.....	97,171	37,483	193,244	20,507	563,935	285,551	1,065,503	15,060,015
Georgia.....	151,331	57,379	334,223	73,286	690,019	560,435	2,168,617	25,728,416
Florida.....	10,848	5,002	72,876	5,794	182,415	23,311	209,453	2,880,058
Alabama.....	128,001	59,895	227,791	66,961	433,263	371,880	1,904,540	21,690,112
Mississippi.....	115,460	54,547	214,231	83,485	436,254	304,929	1,582,734	19,403,662
Louisiana.....	89,514	44,849	105,576	54,968	414,798	110,333	597,301	11,152,275

Texas.....	75,419	12,364	214,758	49,982	636,805	99,098	683,514	10,266,880
Arkansas.....	60,197	11,559	93,151	34,239	165,320	91,256	836,727	6,647,969
Tennessee.....	270,636	75,303	250,456	86,255	414,051	811,591	3,104,800	29,978,016
Kentucky.....	315,682	65,609	247,475	62,074	442,763	1,102,121	2,861,163	29,591,387
Ohio.....	463,397	3,423	544,499	65,381	749,067	3,942,929	1,964,770	44,121,741
Michigan.....	58,506	70	99,676	55,350	119,471	746,435	205,847	8,008,734
Indiana.....	314,299	6,599	284,554	40,221	389,891	1,122,493	2,263,776	22,478,555
Illinois.....	267,653	10,573	294,671	76,156	541,209	894,043	1,915,910	24,209,258
Missouri.....	225,299	41,667	230,169	112,168	449,173	762,511	1,702,625	19,892,680
Iowa.....	38,536	754	45,704	21,892	69,025	149,960	323,247	3,639,275
Wisconsin.....	30,179	156	64,339	42,801	76,293	124,892	159,276	4,897,855
California.....	21,719	1,666	4,280	4,780	253,599	17,574	2,776	3,351,058
Minnesota.....	860	14	607	655	740	80	734	92,859
Oregon Territory.....	8,046	420	9,427	8,114	24,188	15,382	30,235	1,876,189
Utah Territory.....	2,429	325	4,861	5,266	2,489	3,262	914	546,968
New Mexico Territory.....	5,079	8,654	10,635	12,257	10,085	377,271	7,314	1,494,639
Aggregate.....	4,335,358	559,229	6,392,044	1,699,241	10,268,856	21,721,814	30,316,608	543,969,420

Productions of Agriculture in the United States—Continued.

PRODUCE DURING THE YEAR ENDING JUNE 1, 1850.

States and Territories.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bushels of.	Oats, bushels of.	Rice, pounds of.	Tobacco, pounds of.
Maine.....	296,259	102,916	1,750,056	3,181,037	.....	.....
New Hampshire.....	185,658	183,117	1,573,670	978,381	.....	50
Vermont.....	535,955	176,233	2,032,396	2,307,734	.....	.....
Massachusetts.....	31,211	481,021	2,345,490	1,165,146	.....	138,246
Rhode Island.....	49	26,409	539,201	215,232	.....	.....
Connecticut.....	41,762	600,893	1,935,043	1,258,738	.....	1,267,624
New York.....	13,121,498	4,148,182	17,858,400	26,552,814	.....	83,189
New Jersey.....	1,601,190	1,255,578	8,759,704	3,378,063	.....	310
Pennsylvania.....	15,367,691	4,805,160	19,835,214	21,538,156	.....	912,651
Delaware.....	482,511	8,066	3,145,542	604,518	.....	.....
Maryland.....	4,494,680	226,014	11,104,631	2,242,151	.....	21,407,497
District of Columbia.....	17,370	5,509	65,230	8,134	.....	7,800
Virginia.....	11,232,616	458,930	35,254,319	10,179,045	17,154	56,803,218
North Carolina.....	2,130,102	229,563	27,941,051	4,052,078	5,465,868	11,984,786
South Carolina.....	1,066,277	43,790	16,271,454	2,322,155	159,930,613	74,285
Georgia.....	1,088,534	53,750	30,080,099	3,820,044	38,950,691	423,924
Florida.....	1,027	1,152	1,996,809	66,586	1,075,090	998,614
Alabama.....	294,944	17,261	28,754,048	2,965,697	2,311,252	164,990
Mississippi.....	137,990	9,606	22,446,552	1,503,288	2,719,856	49,960
Louisiana.....	417	475	10,266,373	89,637	4,425,349	26,878

Texas.....	41,689	3,108	5,926,611	178,883	87,916	66,897
Arkansas.....	199,639	8,047	8,893,939	656,183	63,179	218,936
Tennessee.....	1,619,381	89,163	52,276,223	7,703,086	258,854	20,148,932
Kentucky.....	2,140,822	415,073	58,675,591	8,201,311	5,688	55,501,196
Ohio.....	14,487,351	425,718	59,078,695	13,472,742	.....	10,454,449
Michigan.....	4,925,889	105,871	5,641,420	2,866,056	.....	1,245
Indiana.....	6,214,458	78,792	52,964,363	5,655,014	.....	1,044,620
Illinois.....	9,414,575	83,364	57,646,984	10,087,241	.....	841,394
Missouri.....	2,981,652	44,268	36,214,537	5,278,079	700	17,113,784
Iowa.....	1,530,581	19,916	8,656,799	1,524,345	500	6,041
Wisconsin.....	4,286,131	81,253	1,988,979	3,414,672	.....	1,268
California.....	17,328	.....	12,236	.....	.....	1,000
Minnesota.....	1,401	125	16,725	30,582	.....	.....
Oregon Territory.....	211,493	106	2,918	65,146	.....	325
Utah Territory.....	107,702	210	9,899	10,900	.....	70
New Mexico Territory.....	196,516	.....	365,411	5	.....	8,467
Aggregate.....	100,503,899	14,188,639	592,326,612	146,567,879	215,312,710	199,752,646

Productions of Agriculture in the United States—Continued.

PRODUCE DURING THE YEAR ENDING JUNE 1, 1850.

States and Territories.	Ginned cotton, bales of 400 pounds each.	Wool, pounds of.	Peas and beans, bushels of.	Irish potatoes, bushels of.	Sweet potatoes, bushels of.	Barley, bushels of.
Maine.....	.....	1,364,034	205,541	3,436,040	.....	151,731
New Hampshire.....	.....	1,108,476	70,856	4,304,919	.....	70,256
Vermont.....	.....	3,400,717	104,649	4,951,014	.....	42,150
Massachusetts.....	.....	855,136	43,709	3,585,384	.....	112,885
Rhode Island.....	.....	129,692	6,846	651,029	.....	18,875
Connecticut.....	.....	497,454	19,090	2,689,725	.....	19,099
New York.....	.....	10,071,301	741,636	15,398,362	80	3,585,059
New Jersey.....	.....	375,396	14,174	3,207,236	5,623	6,492
Pennsylvania.....	.....	4,481,570	55,231	5,980,732	508,015	165,584
Delaware.....	.....	57,768	4,120	240,542	52,172	56
Maryland.....	.....	480,226	12,816	764,939	65,443	745
District of Columbia.....	.....	525	7,754	28,292	3,497	75
Virginia.....	3,947	2,860,765	521,581	1,316,933	1,813,671	25,437
North Carolina.....	73,849	970,738	1,584,252	620,318	5,095,709	2,735
South Carolina.....	300,901	487,233	1,026,900	136,494	4,337,469	4,583
Georgia.....	499,091	990,019	1,142,011	227,379	6,986,428	11,501
Florida.....	45,131	23,247	135,359	7,828	757,226	.....
Alabama.....	564,429	657,118	892,701	246,001	5,475,204	3,958
Mississippi.....	484,293	559,619	1,072,757	261,482	4,741,795	229

Louisiana.....	178,737	109,897	161,732	95,632	1,428,453	.....
Texas.....	57,596	131,374	179,332	93,548	1,323,170	4,776
Arkansas.....	65,346	182,595	285,738	193,832	788,149	177
Tennessee.....	194,532	1,364,378	369,321	1,067,844	2,777,716	2,737
Kentucky.....	758	2,297,403	202,574	1,492,487	998,184	95,343
Ohio.....	.....	10,196,371	60,168	5,057,769	187,991	354,358
Michigan.....	.....	2,043,283	74,254	2,359,897	1,177	75,249
Indiana.....	14	2,610,287	35,773	2,083,337	201,711	45,483
Illinois.....	.....	2,150,113	82,814	2,514,861	157,433	110,795
Missouri.....	.....	1,627,164	46,017	939,006	335,505	9,631
Iowa.....	.....	373,898	4,775	276,120	6,243	25,093
Wisconsin.....	.....	253,963	20,657	1,402,077	879	209,692
California.....	.....	5,520	2,292	9,292	1,000	9,712
Minnesota Territory.....	.....	86	10,002	21,145	200	1,216
Oregon Territory.....	.....	29,686	6,566	91,326	.....	.....
Utah Territory.....	.....	9,222	289	43,968	60	1,799
New Mexico Territory.....	.....	32,901	15,688	3	.....	5
Aggregate.....	2,468,624	52,789,174	9,219,975	65,796,793	38,259,196	5,167,016

Productions of Agriculture in the United States—Continued.

States and Territories.	PRODUCE DURING THE YEAR ENDING JUNE 1, 1850.					
	Buckwheat, bushels of.	Value of orchard products.	Wine, gallons of.	Value of produce of market gar- dens.	Butter, pounds of.	Cheese, pounds of.
Maine.....	104,523	\$342,865	724	\$122,387	9,243,811	2,434,454
New Hampshire.....	65,265	248,563	344	56,810	6,977,056	3,196,563
Vermont.....	209,819	315,255	659	18,853	12,137,980	8,720,834
Massachusetts.....	105,895	463,995	4,688	600,020	8,071,370	7,088,142
Rhode Island.....	1,245	63,994	1,013	98,298	995,670	316,508
Connecticut.....	229,297	175,118	4,269	196,874	6,498,119	5,363,277
New York.....	3,183,955	1,761,950	9,172	912,047	79,766,094	49,741,413
New Jersey.....	878,934	607,268	1,811	475,242	9,487,210	365,756
Pennsylvania.....	2,193,692	723,389	25,590	688,714	39,878,418	2,505,934
Delaware.....	8,615	46,574	145	12,714	1,055,308	3,187
Maryland.....	103,671	164,051	1,431	200,869	3,806,160	3,975
District of Columbia.....	378	14,843	863	67,222	14,872	1,500
Virginia.....	214,898	177,137	5,408	183,047	11,089,359	436,298
North Carolina.....	16,704	34,348	11,058	39,462	4,146,290	95,921
South Carolina.....	283	85,108	5,880	47,286	2,981,850	4,970
Georgia.....	250	92,776	796	76,500	4,640,559	46,976
Florida.....	55	1,280	10	8,721	371,498	18,015
Alabama.....	348	15,408	220	84,821	4,008,811	31,412
Mississippi.....	1,121	50,405	407	46,250	4,346,234	21,191

Louisiana.....	3	22,359	15	148,329	683,069	1,957
Texas.....	59	12,605	99	12,254	2,326,556	94,619
Arkansas.....	175	40,141	35	17,150	1,854,239	30,088
Tennessee.....	19,427	52,894	92	97,183	8,139,585	177,681
Kentucky.....	16,097	106,230	8,093	293,120	9,887,523	213,954
Ohio.....	638,064	695,921	48,207	214,004	34,449,379	20,819,542
Michigan.....	472,917	132,650	1,654	14,738	7,065,878	1,011,492
Indiana.....	149,740	324,940	14,055	72,864	12,881,535	624,564
Illinois.....	184,504	446,089	2,997	127,494	12,526,543	1,278,225
Missouri.....	23,641	514,711	10,563	99,454	7,834,359	203,572
Iowa.....	52,516	8,434	420	8,848	2,171,188	209,840
Wisconsin.....	79,878	4,823	113	32,142	3,633,750	400,283
California.....	.....	17,700	58,055	75,275	705	150
Minnesota Territory.....	515	.....	.....	150	1,100	.....
Oregon Territory.....	.....	1,271	.....	90,241	211,464	36,980
Utah Territory.....	332	.....	.....	23,868	83,309	30,998
New Mexico Territory.....	100	8,231	2,363	6,079	111	5,848
Aggregate.....	8,956,916	7,723,326	221,240	5,269,930	313,266,963	105,535,219

Productions of Agriculture in the United States—Continued.

PRODUCE DURING THE YEAR ENDING JUNE 1, 1850.

States and Territories.	Hay, tons of.	Cloverseed, bushels of.	Other grass seeds, bushels of.	Hops, pounds of.	Hemp.		Flax, pounds of.	Flax seed, bushels of.	Silk cocoons, pounds of.
					Dew rotted, tons of.	Water rotted, tons of.			
Maine.....	755,889	9,097	9,214	40,120			17,081	580	252
New Hampshire.....	598,854	829	8,071	257,174			7,652	189	191
Vermont.....	866,153	760	14,936	288,023			20,852	939	268
Massachusetts.....	651,807	1,002	5,085	121,595			1,162	72	7
Rhode Island.....	74,818	1,328	3,708	277			85		
Connecticut.....	516,131	13,841	16,608	554			17,928	703	328
New York.....	3,728,797	88,222	96,493	2,536,299	1	3	940,577	57,963	1,774
New Jersey.....	435,950	28,280	63,051	2,133			182,965	16,525	23
Pennsylvania.....	1,842,970	125,030	53,913	22,088	44		530,307	41,728	285
Delaware.....	30,159	2,525	1,403	348			11,174	904	
Maryland.....	157,956	15,217	2,561	1,870			35,686	2,446	39
District of Columbia.....	2,279	3		15					
Virginia.....	369,098	29,727	23,428	11,506	90	51	999,450	52,318	517
North Carolina.....	145,662	576	1,275	9,246	36	3	593,796	38,196	229
South Carolina.....	20,925	376	30	26			333	55	123
Georgia.....	23,449	132	428	261			5,387	622	813
Florida.....	2,510		2	14			50		6

Alabama.....	32,685	138	547	276	.....	.....	3,921	69	167
Mississippi.....	12,505	84	533	473	7	.....	665	26	2
Louisiana.....	25,752	2	97	125	.....	.....	.....	.....	29
Texas.....	8,279	10	.....	7	.....	.....	1,048	26	22
Arkansas.....	3,977	90	436	157	.....	15	12,291	321	38
Tennessee.....	74,092	5,096	9,118	1,032	456	141	368,131	18,906	1,923
Kentucky.....	113,747	3,230	21,481	4,309	16,432	1,356	2,107,261	75,801	1,281
Ohio.....	1,443,142	103,197	37,310	63,731	100	50	446,932	188,880	1,552
Michigan.....	404,934	16,989	9,285	10,663	.....	.....	7,152	519	108
Indiana.....	403,230	18,321	11,951	92,796	67	62	584,609	36,888	387
Illinois.....	601,952	3,427	14,380	3,551	93	56	160,063	10,785	47
Missouri.....	116,925	619	4,346	3,130	15,968	60	527,160	13,696	186
Iowa.....	89,055	342	2,096	8,242	.....	.....	62,660	1,959	246
Wisconsin.....	275,662	483	5,003	15,930	.....	2	68,393	1,191	.....
California.....	2,038	.....	.....	.....	.....	.....	.....	.....	.....
Minnesota Territory.....	2,019	.....	.....	.....	.....	.....	.....	.....	.....
Oregon Territory.....	373	4	22	8	.....	.....	640	.....	.....
Utah Territory.....	4,805	2	.....	50	.....	.....	550	5	.....
New Mexico Territory.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Aggregate.....	13,838,579	468,979	416,811	3,496,029	33,294	1,799	7,715,961	562,312	10,843

Productions of Agriculture in the United States—Continued.

PRODUCE DURING THE YEAR ENDING JUNE 1, 1850.

States and Territories.	Maple sugar, pounds of.	Cane sugar, hhd. of 1,000 pounds.	Molasses, gal- lons of.	Beeswax and honey, pounds of.	Value of home- made manufactures.	Value of animals slaughtered.
Maine.....	93,542	.....	3,167	189,618	\$513,599	\$1,646,773
New Hampshire.....	1,294,863	.....	9,811	117,140	393,455	1,522,873
Vermont.....	6,349,337	.....	5,997	249,422	267,710	1,861,336
Massachusetts.....	795,525	.....	4,693	59,508	205,333	2,500,924
Rhode Island.....	28	.....	4	6,347	26,495	667,486
Connecticut.....	50,796	.....	665	93,304	192,252	2,202,266
New York.....	10,357,484	.....	56,529	1,756,190	1,280,333	13,573,983
New Jersey.....	2,197	.....	954	156,694	112,781	2,638,552
Pennsylvania.....	2,326,525	.....	50,652	839,509	749,132	8,219,848
Delaware.....	.....	.....	50	41,248	38,121	373,665
Maryland.....	47,740	.....	1,430	74,802	111,928	1,954,800
District of Columbia.....	.....	.....	.....	550	2,075	9,038
Virginia.....	1,227,665	.....	40,322	880,767	2,156,312	7,503,006
North Carolina.....	27,932	.....	704	512,289	2,086,522	5,767,866
South Carolina.....	200	.....	15,904	216,281	909,525	1,302,637
Georgia.....	50	671	216,150	732,514	1,838,968	6,339,762
Florida.....	.....	1,644	352,893	18,971	75,582	514,685
Alabama.....	643	2,752	83,428	897,021	1,934,120	4,823,485
Mississippi.....	.....	8,242	18,318	397,460	1,164,020	3,636,582
Louisiana.....	255	226,001	10,931,177	96,701	139,232	1,459,990

Texas.....	9,330	7,351	441,638	380,532	255,719	1,106,032
Arkansas.....	158,557	248	7,223	192,338	638,217	1,162,913
Tennessee.....	437,405	284	30,079	1,036,572	3,137,810	6,401,765
Kentucky.....	4,588,209	.....	197,305	1,158,019	2,458,128	6,462,598
Ohio.....	2,439,794	.....	19,823	804,275	1,712,196	7,439,243
Michigan.....	2,921,642	.....	180,325	359,232	340,947	1,328,327
Indiana.....	248,904	.....	8,354	985,329	1,631,039	6,567,935
Illinois.....	178,910	.....	5,636	869,444	1,155,902	4,972,286
Missouri.....	78,407	.....	3,162	1,328,972	1,674,705	3,367,106
Iowa.....	610,976	.....	9,874	321,711	221,292	821,164
Wisconsin.....	.....	.....	.....	131,005	43,624	920,178
California.....	.....	.....	.....	.....	7,000	100,173
Minnesota.....	2,950	.....	.....	80	.....	2,840
Oregon Territory.....	.....	.....	24	.....	.....	164,530
Utah Territory.....	.....	.....	58	.....	1,392	67,985
New Mexico Territory.....	.....	.....	4,236	.....	6,033	82,125
Aggregate.....	34,249,886	247,581	12,700,606	14,853,857	27,481,399	109,485,757