

SOCIAL AND ECONOMIC HISTORY OF AMERICAN AGRICULTURE

(Second Semester)

Proposed treatment and subjects;

Agricultural Revolution: During the course of the 19th century a great change in American agriculture took place. This was a gradual process not taking place everywhere at the same time. Colonial agriculture was self-sufficient, but after the agricultural revolution, agriculture became commercial. Beard refers to this in his chapter "Triple Evolution in Agriculture."

The Factors of the Revolution:

1. Land Policies--were in fact ultra-liberal. From 1862-92 the government disposed of the land as fast as possible. From 1890-92 the people (especially the scientific group) came to regard land differently and wanted a different policy.
 2. Settlement of Trans-Mississippi West. There was an intensification of settlement east of the Mississippi River.
 3. Farm Machinery. It is a part of the agricultural revolution that we shift from hand and horse-drawn equipment to machines.
 4. Transportation. The main means is, of course the railroads. They bring the farmer into contact with outside markets. Agricultural settlement of the Trans-Mississippi West followed the building of the railroads.
 5. Expansion of Markets for Agricultural Products.
 - a.--Home markets were due to increased population and the rise of industrial cities.
 - b.--Foreign markets were due to various conditions.
 - c.--The development of cooperatives.
 6. Agencies promoting scientific knowledge.
 - a.--Individual leadership.
 - b.--Creation and organization of societies for the improvement of agriculture.
 - c.--Agricultural fairs arising from the agricultural societies.
 - d.--Agricultural literature--particularly the farm periodical.
 - e.--Governmental action:
 - (1) State. Their achievements don't show up very much. The state boards of agriculture were largely a clearing house for the agricultural societies.
 - (2) Federal. The people depend more on the U. S. Department of Agriculture than on the states after its formation in 1862.
 - f.--Agricultural Education: This has gone through all stages and is now an important factor.
 - g.--The agricultural sciences.
 7. Political Activity and Unrest.
 - a.--The Granger movement.
 - b.--The Greenback movement.
 - c.--Farmer's Alliance and Populist movement.
 - d.--Progressive movement.
 - e.--Non-partizan league.
 - f.--1920's are a series of movements--the Agricultural Bloc. The movement to force the McNary-Haugen Bill.
- Agriculture became much more regionalized and geographically conditioned.

Agricultural Revolution in England. This revolution took place chiefly between 1730 and 1820, but it really goes back to the Middle Ages. England consisted of manors. The civilization was agricultural. The central feature of the manors was a cluster of houses at the main intersection of the paths that led to the fields. As cities grew the necessity of exchanging manufactures for agricultural products led to a need for transportation facilities and markets.

As a result there was a movement toward individual use of the land, instead the communal use that had been established under the manors. The manorial land system began to decline during the reign of Edward I. The first evidence of such a shift was the enclosure movement, which was doomed to spell the defeat of the manors. The desire to get land to raise sheep, created a necessity for grain production and livestock.

The Black Death destroyed one-half of the population of England and left land without either owners or laborers. This led to the peasant revolt in England and the poorer classes demanded the abolition of the manor system.

The 16th century was a period of transition in agriculture. From 1523-1600 many prominent tried to improve agriculture by writing books, i.e. Fitzherbert, Malbie, Hill, Tusser, Partridge, etc. Better means of communication were provided, attention was paid to manuring, marling, liming, waste lands were reclaimed, and agricultural implements were improved.

The people in Norfolk began to raise turnips, as feed for human beings and winter feed for stock.

1663--the raising of red clover was advocated.

1710--beef cattle averaged 370 lbs. (weight)

1795-- " " " 800 " "

1710--sheep " 28 " "

1795-- " " 80 " "

Arthur Young did much to popularize the writings of other men by his lectures. Meanwhile the English population began to shift to industry.

In 1760 the average Englishman ate rye bread and seldom ate meat. After the revolution he wanted white (wheat) bread, beef and mutton to eat.

Read: Influence of English Agriculture on America--Rodney C. Loehr.

Contrast Between British and American Agriculture--C. R. Gay.

Landmarks in British Farming--R. E. Prothero.

Know the contributions of Bakewell, Sinclair, Tull, and Young.

One of the important topics is the matter of land policies. The Homestead Act of 1862 marks a milestone in government attitude. Most of the public domain has been given to private individuals under the provisions of this Act of 1862.

The origin of the idea of free grants to settlers goes back to the Colonial period. There were three precedents:

1. The headright system: If anyone came over or was transported to this country, he was entitled to so many acres of land of the public domain. This was especially practiced in Virginia. Headrights were sold out-right for money in the course of time and were then known as treasury rights. Anyone could get 50 acres in the unoccupied domain.
2. The quit-rent system: Noblemen received large grants from the King in return for favors, and they in turn made grants in exchange for the payment of an annual quit rent. It was practically impossible to enforce this system here, because of the abundance of land on the frontier. The theory and practice of this system broke down, and those who did obtain land in this fashion refused to pay the quit-rent.
3. Actual gifts of land to individuals, or groups of individuals. In New England these gifts were small and were a reward for duties performed that were a real service to the community.
4. French practices on the St. Lawrence and Mississippi River valleys were the result of an extremely liberal land policy, although the French settlements were not a great success.
5. Spanish government was also lavish in the way in which they disposed of land.

Thomas Hart Benton, senator from Missouri, was an extreme advocate for the giving of free land to settlers. Benton gives you the impression that the world was in agreement and committed to the idea of giving away free land.

During the Revolution we have the beginning of the American Colonial System and the way in which the public domain was to be disposed of and handled by the Federal Government. They were thus faced with the problem of Empire. They outlined this in the Ordinance of 1785 and again in that of 1787. Some wished to utilize this land as a source of revenue for the Federal Government. They were thus determined to get as much for it as possible and to hold on to it as long as possible. Governour Morris was especially active in this group.

There were farmers on the frontier—squatters—who had quite a different idea. All they saw was raw material from which farms could be made. From 1780-1862 these two ideas dominated the handling of the public domain. There was a swing of the pendulum between the two extremes.

Precedents for the Homestead Act. In 1797 a petition came from the Ohio country, another from Natchez, some even from far away Indiana to Congress for free land from actual settlers. There was an organized movement in 1807. These petitions in 1812 contained this idea—"they consider every man entitled by nature to a portion of the soil of the country and that no man ought to possess more than 200 acres." This is a philosophical concept that entered into the American Revolution of the 13 colonies. They also felt that there should be limitation of the amount held to prevent speculation.

In 1825 the agitation began under Benton for free land. He worked thru-out his career for modification of the land grant acts. The Preemption Act of 1841 definitely gave the squatters first chance at land on the block.

There were Congressional acts for actual gifts of land to individuals in return for military protection on the various frontiers. These were made in Florida, Oregon, and New Mexico. These were in exchange for a specific service.

In 1848 there was a rising Free Soil party. Free Soil Democrats in 1852 took a similar stand. The Republicans in 1860 got a definite pledge of free lands to actual settlers. In return the eastern wing (especially Penna.) was promised a protective tariff. As a result the Homestead Act was passed and signed in 1862.

During the 1850's free homesteads became very much mixed up with the slavery question. Because of this legislation was delayed for a decade at least. And it had considerable effect later. The New England or northern farmers were fairly mobile--that is they could easily pack up their possessions and take their stock when they moved West. The large property owners with their slaves and extensive households could not. Westward migration halted at the Mississippi River. The prairies did not appeal to the settlers and the Indians discouraged them with their raids. The North did not want slavery to spread into the public domain, although perhaps slavery would not have flourished that far North in any event.

The National Reform Association, headed by Horace Greeley of the New York Tribune, advocated the following principles that they formulated:

1. Public lands should not be sold to speculators.
2. Every person needing land should have land.
3. No complaint against prices being charged.
4. In the end free land would increase the revenue of the Federal Government.

This association was not extensive in membership, but it held meetings and got lots of publicity. The labor leaders were convinced there was a surplus of labor, and these people should be sent to the public domain. Before 1860 those in favor of homesteads emphasized the philosophical aspect. They argued that the land was not a gift, but the 5 years cultivation was well worth the price charged for the land and should be substituted for it. Man had an inherent right to a piece of soil. The opponents claimed such a law was unconstitutional. But they argued that public domain was held as a trust, they could sell it, but they could not give it away. The money in the treasury was a symbol to the people of that trust. Emigration laws, the endangering of the price of privately owned lands, the fact that such an act would be unfair to the land-holding railroads, plus the fact that such a policy would tend to make the people shiftless were all put forth as arguments. Moreover it was an attempt of the anti-slavery groups to win the majority in Congress.

Buchanan vetoed the Homestead Bill and it rode until its signing by Lincoln. The rising Republican party made an issue of it and put it through.

The Homestead Act of 1862. Any head of a family was entitled to 160 acres if he lived on the plot five years in the public domain. He had to build a house and had to cultivate a part of the land. The bill contained the commutation clause, which gave the settler the right to commute the land before the 5 years were up. That means he could pay for it at the same rate he would have had to pay before the bill was passed. At first few took advantage of the clause, in fact not until 1880 was there a commutating of homesteads. Between 1881 and 1926 23% of the lands were commuted. At first the settlers were homesteaders, but after 1881, the land speculators came in. These men wanted to sell to lumbermen, mining corporations, etc.

During the years it was in operation, Congress again and again had to make loans to settlers on the edge of settlement. As time went on people realized there was something wrong. The area opened to settlement was the Great Plains and the Rocky Mountains. In this region 160 acres was too much for semi-arid country where irrigation was necessary, and it was not enough for a ranch in the region where grazing was the only industry. The people themselves tried to apply the idea that everyone should have a strip of land in the Reconstruction period in the South. The North promised the negroes 40 acres and a mule.

Was the frontier a safety-valve? The answer might be yes in the periods in which Turner was especially interested. It doesn't work so well for the 80's and 90's. Schafer believes in this principle, Carter Goodrich et al. supply data, which is also not inclusive to try to prove that the safety-valve factor is all wet.

Since 1933-1934 there have been many speeches referring to the American frontier. Wallace, High Johnson, even Pres. Roosevelt have all referred to the frontier. Since we no longer have a frontier, we cannot run away from our economic problems. Didn't the American people think that the frontier was an avenue of escape in the decade after the panics of 1873 and 1893? The newspaper files and farm journals convey the impression that the people thought so,; whether it was true or not is beside the point.

The commutation clause was used to evade the Homestead Act, which was and still is on the books. Ickes withdrew all land until such a time as the Land Office could resurvey it and pass upon its suitability. From 1862-1933 it was possible to get 1100 acres of land. You could get 160 acres under the Homestead Act, 160 acres under Preemption Act of 1841, 160 acres under the Timber and Stone Act, etc. In 1862 1,398,000 patents were issued and 226,000,000 acres of land were given away. About 1870 there were complaints and in 1879 a commission was appointed to investigate the operation of the Homestead Act. They ignored most of the problems, also the protests for conservation of natural resources of the country. Under T. Roosevelt there was a commission to attempt to settle affairs. After 1870 the people began to question the whole system. Supposedly farms were provided for the landless East. As it happened the new areas settled were fairly radical.

In 1877 the Desert Land Act was passed; this was the first recognition of the unsuitability of the Land Act of 1862. Under this later act you could buy 640 acres at \$1.50 per acre, 25¢ per acre to be paid at the time of the patent. It is easy to see how this led to speculation. You had to irrigate the land within 3 years after purchase. Considerable land was entered. Stockmen and speculators and their friends filed together for choice sets of hay land, strips along streams, etc.

The Timber Land Act came next. Down to 1878, forested areas were acquired under the Homestead Act. The owners cut the trees indiscriminately. The Timber Cutting act was limited to those whose duties would necessitate forest removal. Land with good timber and stone for building was put up for sale for \$2.00 per acre. In 1891 the Preemption Act was repealed and marked the end of the American Frontier. Ranchers, lumbermen, mining corps. etc. all abused the Homestead Act.

In Minnesota valuable timber land was put into the hands of the lumbermen. In 1870-1880 people in the Great Plains suffered for many reasons. In moving West they tried to perpetuate the eastern ways of farming and farm management. It was a long and bitter struggle to make the necessary adjustments. Another thing was the grasshopper plagues. There were hailstorms, tornadoes, and drought. The plains were first settled during a wet cycle (1870's). At first

there was success because of the rains and the consequent good crops.

The Kincaid Act applied to Nebraska and permitted people to take up 640 acres instead of 160, because they found 160 was not enough. In 1909 came the enlarged Homestead Act--for 240 acres, which applied to land that could be irrigated.

February 13, 1940.

Agrarian Settlement since 1850.

About 1850 the edge of settlement reached the Great Plains where it halted for a decade. (Use Loebeck for additional information on Western United States. Fenneman is also very good.) The physiography of western United States is entirely different from that of the eastern United States. The 100th meridian, the 20" rainfall line, and the 2000' contour interval all form a rough boundary between the High Plains and the low plains. A fourth boundary is the line of farthest extent of settlement.

The idea of a great American desert somewhere west of the Rockies started about 1820 probably arising from some of the early travelers who struck the area during a drought or during a dry season. The fact of this desert led to the formation of the Indian Policy of the times. They gathered up the scattered tribes and dumped them into these desert areas. Bulletin 689 of the Geological Survey on the history of boundaries and geographical areas, etc. is very useful for general information.

The Main Physiographic Provinces:

1. Great Plains--High Plains and Low. There are very few major rivers flow across the high plains; just the Platte, Canadian, and Arkansas. Along these were the important pioneer routes.
2. Goshen Hole, Colorado Piedmont, Pecos Valley.
3. Black Hills
4. Northern Rockies--Rocky Mountain Trench
5. Southern Rockies
6. Columbia Lava Plateau. This comprises eastern Oregon where you find sheep and cattle range industry. The Snake River valley is fertile due to irrigation. The Palouse area is noted for wheat production. Specialized agriculture is limited to certain river valleys.
7. Basin and Range Province, or Great Basin. Practically all of Nevada is in this province. It is a region of interior drainage for altho there is a little rain, it doesn't have a chance to run off. The area is not well served by railroads.
8. Colorado Plateau.
9. Coastal Mountains. This includes the Cascades, Sierra Nevadas, Coast ranges inclosing the San Joachin and Sacramento valleys of California. In the north is the Willamette Valley passing on to the Puget Sound. Most of the agriculture of the region is in these large valley troughs.

Stages of Development in Trans-Mississippi West.

1. This vast territory was a roadway. The people were not interested in it, but were interested in reaching the Pacific Coast. People went to Oregon and to California during the Gold Rush. The Mormons were one exception. They deliberately went to Utah.
2. The region was a mining frontier. The first permanent white settlements

in California were outgrowths of the Franciscan Missions established in 1769. They went in for ranching. Between 1769 and 1849 there were three institutions --the missions, the presidio, and the pueblo. News of the discovery of gold brought thousands of people in a single year. The activities of the prospectors broke down the frontier. They opened it to settlement. By 1859 there was an influx of miners into the Pikes Peak area in Colorado. Comstock Lode in Nevada led to similar developments. During the Civil War this process continued.

3. Railroads. The settlement of the western United States was distinct from the eastern where settlement preceded improved transportation facilities. The Union Pacific was completed in 1860. It was done originally to add California to the Union. Later came the Great Northern, Southern Pacific and Santa Fe. It was largely responsible for the extermination of the buffalo. The white settlers moving into their feeding grounds made little progress against them, but the advent of the railroads they could reach the buffalo much more easily. From 1872-82 the bones were gathered up and shipped east for fertilizer. Little of the buffalo was used for food, only the choice parts. Systematic slaughter began about 1830 and ended abruptly after 1860. The Union Pacific divided the Buffaloes into a northern and southern herd. In 1872, 73, and 74, the hunters killed over 4,000,000 in the southern region. The northern herd was practically exterminated from 1876-1880. In 1887 a movement was started to save the buffalo that remained of what were once 37,000,000. The Indians never domesticated the buffalo, altho they tried.

4. Ranching frontier. People came to realize that cattle could live in the open the year round on the Great Plains and thrive. As a result the range-cattle industry flourished. The extermination of the buffalo opened the ranges to cattle.

5. The farmers' frontier. By the middle of the 1880's there were four railroad lines to the Pacific. The population came in thru the Homestead laws and also thru the railroads that had land to sell. The railroads competed with each other. Much of settlement west of the Mississippi River was due to the railroads. With this went a transposition of the Indians. They resented the invasion and the Sioux uprising came in 1862. Surveyors and miners had gone thru the Indian country without much trouble. Again 1876 saw another uprising. Custer's Massacre on the Little Big Horn represents the final struggle between the Indians and the whites. The Dawes Act was passed to make white men of them. Land was held by the Indians in common, but under this act it was to be divided up among them. In that way they received land from the Government and the remaining land was thrown open to white settlement. This saw the so-called "rushes" in 1890. There was a growth of population as a whole, an increase in immigration and westward migration.

Natural Growth of Population as a Factor in Agrarian Settlement.

Immigration. The early works were either written from the point of view of some one involved in the service, or else they were propoganda. Between 1860-1920 nearly 28½ million foreigners came to America. The tide of immigration rose and fell with prosperity and depression. The peak years were 1873, 1882, 1907, and 1914. The return of these immigrants to their native country and the increase of native population keeps the foreign population down to 14 percent.

Reasons for Immigration. Foremost is the hope of economic betterment, the desire for personal freedom (religious), the desire for cheap labor, the desire to sell land, to increase passengers on steamboats and railroads. The type of immigrant changed when it became easy to enter. At first we had German, Irish, and English in the 1880's chiefly political refugees. But later the people from eastern Europe predominated. The first laws passed were against Chinese, and then

against labor imported for specific jobs. (Under contract) In 1917 the literacy test was passed.

Farm Implements and Machinery.

What is the actual increased efficiency due to mechanization? We need studies like this. For centuries agriculture was performed by hand labor with the help of a few simple tools and some animal power. Draft animals were used for plows, carts, and threshing. The invention of the mower, reaper, and threshing machine came fairly late-- about 1830, or a little over a hundred years ago. Only since the Civil War do we have horse-power machinery.

The reaper was important because it was used at a critical point in the harvest when time meant everything. About 1831 Cyrus McCormack invented his reaper. A quaker named Obed Hussey also invented a reaper about the same time. However, McCormack pulled up stakes and went westward where he reaped the harvest of his efforts in the heart of the wheat belt. Hussey went to the eastern shore and made demonstrations where there was not much wheat, and as a result no one ever heard of his machine. Even McCormack would not have made out so well if it had not been for the Civil War. The Union drafted so many men, that the machines were necessary. The Census of 1900 has a monograph on increased use of farm machinery by decades. This shows where the first mechanization took place, also which areas predominate in usage of farm equipment.

Improved implements made possible cultivation of larger areas. There was increased productivity of each unit of labor and of the land. Early estimates state that productive capacity of each farmer was increased 12 times. The use of these meant the methods were improved. The modern cotton picker, if successful would cause a labor revolution in the South.

About 1900 there was a rapid displacement of horse power by motor power. Man power agriculture lend itself to intensive agriculture, with slavery, land tenure, manors, strip farming, wastefulness, and inefficiency added thereto. During the century and a half of the industrial revolution, agriculture continued to use oxen and men (and a few horses).

Motor power lends itself to efficiency, durability, etc. The introduction of the auto and truck changed things. With a truck a farmer can go farther a field for markets. The auto has widened the farm outlook. Originally the farm community was stable and represented a unit. Horse power farming was compatible with family-farm-unit. Horse machinery filled in with the scattered population. This could be mixed with most any type of farming. Mechanical power farming makes demands in terms of larger units for farming.

Geography of the humid Sub-tropical crops Belt:

This is a low coastal plain 200 miles wide through Mexico to Charleston, S. C. The rice, sugar cane, Gulf early vegetable, and corn belt, plus the citrus fruit belt make up four subregions.

Rice is the principle food of one-half of the world. This with wheat represents the most important crop. There are 211 billion pounds of rice produced annually. This is an average of 105 lbs. per person per year. China, India, Japan, Korea, Siam, East Indies, Philippines, etc. use a great deal of the output. There are many by-products made from rice including those made from the straw. It is used as a food for animals, for powder, cardboard, rayon, cellulose, breakfast food, etc. The straw is used for thatch, sandals, brooms, ropes, clothes, hats, etc. The principal countries producing it are Asia and adjacent islands. The United States produces an extra fine grade of rice. It is for the world market.

History of Rice in United States:

From the beginning rice was tried out experimentally in the coast colonies. Jamestown, etc. Finally rice was successfully introduced around 1670 in South Carolina between Charleston and the sea. From 1670-80 you find the invention of implements for handling rice, hence it must have been raised quite widely. From 1670-1860 production goes thru several stages. Earlier it was grown in the interior, i. e. away from the ocean. The irrigation of the fields depended on fresh water. At time of American Revolution they used walt water in the Tide-water region. They exported rice to France and Italy. Gideon du Pont introduced rice; that, cannot be proven however, and remains a legend.

Some rice was grown in the low areas of Louisiana. But down to 1860 South Carolina and Georgia had practically a monopoly. The war was very hard on the rice plantations. Many fled from the coast. After the war there was a totally different labor situation. The region never recovered from the effects of the war. The plantations had to be split up and the small farmers could not plant on a large scale. In 1859 187,000,000 lbs. were produced in South Carolina; in 1879, 110,000,000 lbs., by 1900 only 8,000,000 lbs. This happened in spite of the protective tariff.

Rice was grown in Louisiana to some extent but was never important. In the 1880's there was a phenomenal growth. In southwest Louisiana is a prairie region along the coast. A spur of the Southern Pacific went thru this area, and brought new settlers and the leaders advocated rice by extensive rather than intensive methods. They adopted wheat-growing technique of Minnesota and Dakotas to rice planting. They used gang plows, disc harrows, broadcast seeders and drills, threshers and binders, etc.

Watkins was the dominating figure. He came from Iowa and was backed by English capital. He bought more than a million acres. He secured the services of Knapp who in 1884-85 brought in settlers from the northwest and they solved most of the problems by 1886. Around 1900 they were averaging $45\frac{1}{2}$ acres per farm, altho 300 acres was sometimes under one management.

They flooded fields once to secure germination. When the grain was 6-8 inches high they flooded again to a depth of 4 inches until the grain was ripe. Then the fields were permitted to dry and the grain harvested. They tried wells, rivers, etc. for irrigation, but they gave out because of the drought in 1896. There was a boom with the building of irrigation canals. They experimented with various types and introduced Japanese rice of much better quality. In 1885, they bought 1 carload, the next year 21 carloads of harvesters, which shows the

rapid development. In 1879, 23 million lbs. were produced along the Mississippi Delta, in 1889, 75 million, and in 1899, 280 million. Texas with a similar region decided to raise rice. They tried it in 1890, but they did not have the same success due to the nature of the soil which is clayey and tenacious.

Arkansas is outside the humid sub-tropical rice belt, but they decided to raise rice too. In 1902 a farmer named Fuller moved to Arkansas from Louisiana. He was fortunate enough to interest the Experiment Station people in rice. It spread thru Grand Prairie section of Arkansas. They had trouble with the water supply, but in 1909 they raised 60,000,000 lbs., in 1919, 300,000,000 lbs., and in 1929 they were in second place in rice production.

Some people in Missouri have tried it too. In 1923 in the Ellsberry district they tried to raise it along the Mississippi River above St. Louis. In 1926 they produced 400 million lbs. They were here reclaiming old river bottoms, but they could not use the heavy machinery and raise rice extensively.

California's career has been spectacular since 1910. Rice was grown there in the early days around Alameda as early as 1860. About 1908 recent rice experiments were begun. In 1912 the first commercial crop in the Sacramento Valley was grown. Henshaw initiated the experiments, but Chandless was probably the brains behind it. The soil was adapted to rice naturally and it was cheap for it wasn't worth much. Part of it had once been used for wheat. It was easy to irrigate and they used labor-saving machinery. As a unit of production it exceeds the rest of the world producing areas. Many of the more recent developments were inaugurated in California. They even used much labor ~~savings~~ in the region. It takes only 34-35 hours of human labor per acre to produce rice. Production has grown to 1,590,000,000 lbs. in 1919. This caused a fall in the production of Alabama and Louisiana.

Look up lecture on sugar given the first semester

Hay and Dairying Belt

This covers the cool humid portions of the United States and Canada. It extends from Cape Breton Island in Nova Scotia to Red River in Minnesota. It is an area 400 miles wide to 1,000 miles long. It produced 75 % as much in terms of crop values as the cotton belt. Practically every county in this belt contains $\frac{1}{2}$ its area in hay and pasture and $\frac{1}{2}$ in arable land. Hay and oats are subsidiary to dairying. There are specialized areas such as Aroostook Co., Me. famous for its potatoes, Cherries along Lake Michigan, beans in Minnesota and sugar beets in the Red River Valley.

Dairying has profited most by invention and general intelligence. Its effects on markets and marketing have been problems. There is a longer history of State and Federal legislation. The first laws were not directly nor specifically applied to dairying, but were passed for its benefit.

In Colonial times dairying was not a distinct industry. Cows were kept for meat, milk, and draft purposes. Around Narragansett there was considerable emphasis on butter and cheese. Only in the 19th century did dairying become a special industry. The women took care of the milk, made butter and cheese. Their methods and utensils were crude and the products were pretty inferior. They depended upon local markets, unorganized and irregular. The cows were milked in the summer and not throughout the year.

The women poured the milk into shallow pans and let it stand. They took off the cream and made butter. Many farms did have spring houses. The butter was

churned and packed in tubs, jars, etc. It was salted so strongly that it was preserved. The butter was taken to market twice a year.

Cheese was made from curds of sauer milk pressed. Everything was done by guesswork.

In 1850 the United States was exporting some dairy products. The centers were Vermont and New York, and Orange Co., Conn. From 1850 to '75 there were agricultural exhibits at State, county, and world fairs. Cattle shows came into vogue where they showed improved dairy cattle. There was considerable improvement in dairy cattle. Heretofore most of the improvement had been in beef cattle. About 1850 people in New York began to develop cheese-factories. The War stimulated this development. 10¢ a pound was a high price in 1860, by 1865 the price was 20¢. Meanwhile we began to export quantities of cheese. Jesse Williams in Oneida County, New York began a cheese factory near Rome. In 1851 he started producing cheese commercially. Shortly factories appeared in Pennsylvania, Ohio, etc.

Creameries (butter factory). The model was operated by Olanson Slaughter near Wallkill in Orange Co., N. Y. in 1851. In Illinois in 1867 there was a butter factory. Both butter and cheese were made under the same roof.

At the present time the two subregions of the Hay and Dairy Belt, eastern half produces fluid milk, and the western half milk, cheese, and butter.

The process of condensing milk was experimented with by Borden in 1849, in New York state. He got results in 1856. Condensed milk was put on the market in 1861.

Western part of the dairy region forged ahead. In 1860's Illinois had some interest in dairying. Eventually the production of cheese and butter shifted to Wisconsin and Minnesota. There is a close correlation between topography and dairying. Cheese is produced on the rougher land. Three periods can be defined in Minnesota. Before 1890 dairying was similar to that in the United States before 1850. From 1890-1918 there was a period of intense activity in improving methods and cooperation in production. There was a shift from home to factory. Then an enormous combine formed to control the markets, when production surpassed consumption.

Wisconsin tended to concentrate on cheese. What caused the difference between Minnesota and Wisconsin? Freight rates have been suggested. Definite courses in dairy methods were set up in Wisconsin, the first in the world. Then personal leadership played a great part. Minnesota started courses too. Theophilus Hecker found that the most prosperous cheese factories were in the Danish communities. From 1891-1916 Clarks Grove creamery was the model of a cooperative venture.

Tobacco

About 1550 the custom of smoking spread throughout Europe. The Spanish took it back to Spain from whence it spread. It was believed to have marvelous curative powers. The church opposed smoking--but Elizabeth seemed to take to it! Smoking became popular and proper in the court circles. James who succeeded Elizabeth was opposed to it. Charles I tried to prevent planting of Tobacco. Cromwell made half hearted attempts, but the later Stuarts were largely concerned with tobacco as a source of revenue. By the end of the 18th century the colonies had practically a monopoly on tobacco trade. As early as 1681 England tried to regulate the tobacco trade.

Colonists began to produce tobacco about 1612. Virginia tobacco was very bitter and not much good. John Rolfe brought seeds with him from the West Indies.

This was a great success and everybody went to raising tobacco. Production grew by leaps and bounds. As a result the local markets were flooded. Tobacco also fell in England. They tried to restrict prices and acreage. There were attempts to force diversification of crops. Tobacco does require much labor. Prior to the American Revolution the market was in such a state that prominent men shifted to other crops (Washington, for example).

At the beginning of the 19th century in Virginia, Maryland, Kentucky, and the Piedmont of North Carolina tobacco was the main crop. It was being grown in the Connecticut Valley and in southeastern Pennsylvania. Kentucky and Tenn. were rivalling Maryland and Virginia. Today there are specialized areas of production. Not much of the acreage in United States is devoted to tobacco, but it is one of the major crops. Early in the 19th century marketing by auction predominated. The night riders (1900-1910) were organized groups, masked, that attempted to control marketing in Kentucky and Tennessee.

Tobacco factories in 1732 were established in Virginia. Tobacco was smoked and snuffed. In 1790 snuff was manufactured in quantities. In 1786 a firm in Baltimore began to use trade labels. About 1810 the manufacturing of cigars shifted from home to factories. These were small industries—almost owner-worker units. They were sold locally. The factory was frequently a barn before the Civil War. During the war the government turned to taxing factories as never before and it has continued ever since. During the 1870's there was a tremendous growth of demand with a protective tariff. At the same time there is a shift of snuff, chewing, and smoking from home production to factory. With this goes the mechanization of the process. Advertising begins to push consumption. Cigarettes did not appear until after the Civil War. Machinery invented to produce cigarettes cut production costs.

The American Tobacco Company was formed in 1890 and was a union of five. James Buchanan Duke was the instigator. It was a trust and it controlled 90% of the cigarette interests in the country. They bought up the patents on the machines used in the manufacturing of cigarettes. Checked by court decisions, they bought out their competitors. They then owned 95% of the interests. They then turned to plug tobacco and they merged with the Union Tobacco Company. When T. Roosevelt came in they tried to break up the Tobacco Company

Evolution of distinct types of tobacco. A type may be a distinct variety, or it may be due to climate or soil. There are variations due to use of different methods of processing. The main guide is the Yearbook for 1922.

Range Cattle Industry.

From 1865-1890 this industry was an important phase of American Agriculture. Historians have done a rather better job on this phase. Webbs "History of the Great Plains" includes the prairie region of Indiana and Illinois. His book deals with the whole subject and all periods. Dale, E. E. "Range Cattle Industry" deals with it from Texas to Montana, or the Great Plains proper. It is sounder for the southern Great Plains. Ernest S. Osgood "The Day of the Cattleman" is strongest on the central part of the Great Plains. In Wyoming and Montana R. S. Fletcher has done a good job in "Range Cattle in Montana." This covers the northern Great Plains. Later there are monographs on phases of the industry. Pelzer, Ora Peake, etc. discuss the cattle range industry in Colorado. The subject has also been treated by the novelists and artists—Emerson Hough, etc.

Paxton thought the industry started when people crossing the plains were caught by winter and had to leave their cattle to fend for themselves while they returned to civilization. When they came back they found the cattle. This doesn't jibe with the facts. Another fancy is that it didn't start until after the Civil War. It really started in southern Texas. There is an area between San Antonio,

Laredo, Brownsville, and Mandragora Bay where the industry grew. It was protected from Indian raids, also well provided with water and grazing. Thus it became a breeding ground. In 1870 there were about 5,000,000 cattle. The southern farmers drove their cattle to the neighbourhood of Cincinnati to fatten for market. The War interrupted the cattle trade. When the soldiers came back from war they wanted some ready money. The Texans renewed their drives. The plains had been occupied by the buffaloes and the railroads brought their destruction. The railroads also provided terminals for the cattle. In 1842 some cattle were shipped to New Orleans in 1846, 1000 cattle were driven overland to Ohio and later were driven to Chicago. The trails northward became fixed and there was a definite method followed in the drives. The farmers objected because the Texas cattle brought various diseases with them.

Gradually the cattle were no longer driven to Chicago, but were driven northwards. In 1866, 200,000 were driven northwards. The people had no experience and had not much success. There were repeated conflicts with the farmers. In 1866 and 1867 they tried boats--but the cattle still carried diseases and the farmers objected. Jos. McCoy appeared on the scene in 1867. He tried to help the industry through the Union Pacific. He selected Abilene as a point for deliverance of cattle. Abilene was the first cow town, Wichita, Dodge City, etc. followed. One of the most clearly defined trails is the Chisolm. Cattle were driven northward to Kansas.

Ultimately this industry spread to the northern Great Plains. The earliest development was in Montana and ~~was~~ with stock brought from the Pacific Coast. The freight hauling companies had pastured cattle on the northern Great Plains.

Following the Oregon Trail, the settlers went in and settled. Animal husbandry came in the later half of the 19th century. Canada went into raising cattle too, as a part of the activities of the Hudson Bay Company. Theoretically the land still belonged to the Indians, but the first half of the period, the cattle men were trespassing. The railroads played a large part in the development. People advocated that grazing lands should be held by the government and leased to occupants. The boom in the North came after the Indians were forced onto reservations. The Union Pacific ran a spur up there to tap the individual homes. Foreign capital came in to run the cattle business.

Sheep industry

Sheep industry is one of the oldest and most important enterprises, largely because wool is necessary for clothing. United States is one of the heaviest users of wools. (5 lbs. per capita.) Sheep also are used for mutton. The consumption here is 6.2 lbs. per capita per year, in Great Britain it is 26.7 lbs.

Sheep husbandry has always been a pioneer industry, i.e. on the outer edges of civilization. Sheep are kept primarily for wool and can be kept in areas far from centers of population (remote areas). Wool is not perishable and is easily transported. Sheep are fairly hardy, can endure days or almost a week without water, and at the same time do not object to it. They eat shrubs and weeds, which other animals cannot stand.

Australia produces one third of the world's mutton. It is a great center for sheep raising. New Zealand ranks first largely because the moisture is adequate because of excellent forage. However, as dairying increases, sheep raising declines in New Zealand. The Argentine was at its height in 1880, but it has declined much as the United States has in the last few years. England has continued to raise sheep in spite of pressure of population on the land. After the agricultural revolution England has tended to go in for trucking, or specialized industry (grazing). In Spain sheep have persisted. The merinos were raised in Spain for their fine wool. The American consuls sent merinos to the United States after the time of Bonaparte.

Sheep were introduced into Virginia in 1609 and in Massachusetts in 1630, but were not important in American agriculture in the 17th century. Wild beasts preyed on them and the rigorous winters were hard on the sheep. First sheep were kept on islands off the coast of Boston harbor. The animals were safer on the islands, also on peninsulas that could be easily fenced off. Herders were hired to take care of livestock. Sheep were important as a source of wool.

In the 18th century, the sheep were small in size and the wool was about 2 lbs. per capita. The breed was not improved until George Washington's time. The first woollen mill was erected in 1788 at Hartford, Conn. The American Revolution was an impetus to keeping sheep, because of the wool needed for uniforms. With the turn of the century, prices for wool rose and farmers raised more sheep from 1810-1814. Sheep rose in the same period from 7 to 10 millions. Then after 1815 there was a decline. The panic of 1819 led to further decrease in woollen goods. This all worked hardship on the sheep farmers. The 1820's were prosperous. The use of water power and improved machinery lowered the cost of wool production and there was consequently a great increase in production. The panic of 1837 brought this period to an end.

1840 was the first agricultural census. At that time there were 19 million sheep. Vermont was the greatest center. There was concentration in southwest Pennsylvania and southeast Ohio.

On the surface the topography is similar to New England. The human element plays some part in the sheep industry.

In 1840 there were very few sheep in the south. They do not do so well in warm climates, because the wool deteriorates into hair (like goat's). In 1850's there was considerable progress made in the West when grain declined. They then began to pay more attention to improving mutton, and they found there was a demand for it. It shifted definitely west of the Alleghanies.

In the '60's the price of wool went up. Cotton was cut off from the North. People went back to sheep in the older areas of the East. In 1866 cotton began to come back, and wool dropped. International trade was disrupted and imported wools flooded the markets.

From 1870-80 sheep growing expanded rapidly into the West where people utilized the free grazing land. Outside of the sheep, not much capital was necessary and not much labor. There was trouble between the sheepmen and the cattlemen. In 1885 in California the sheep industry reached its height. In some parts of the West, Montana for example, reached its height much later (1903?) In 1884-5 there were 51 million sheep in the United States. In 1880 California ranked first, Ohio second, New Mexico third, Texas fourth, Michigan fifth, and Pennsylvania sixth.

The economic history of California begins in 1769. From then to 1848 it was a land of sparse settlement. It was the farthest outpost of the Spanish empire. It was neglected most of the time under Spanish dominion by the Spaniards. It was inhabited largely by agricultural peoples.

Spain pushed northwards from Mexico largely to protect Mexico from the English and French. The Spanish had evolved a technique of settlement. The praesidio, a military outpost; the pueblo, a colonial settlement; and the missions. There were 4 pueblos, and 18 missions.

There was not much agricultural development at the praesidio. The pueblo was not very well developed as there were only three, but the mission was an agricultural center. They were the centers of economic life in California. The missions were comparable to the English manors of the 11th and 12th centuries.

Some of the mission leaders were outstanding men, statesmen (economic, versatile), skilled in agriculture, artisans, practical stock breeders, and economists. They lacked markets so they didn't develop greatly. They raised cattle from 1769-1848. They raised some sheep and horses. Land holding centered on the cattle raising industry. Cattle came from those brought over in 1769. There were about 100000 cattle in 1800. This was an increase from the original 200 or 300. There was not much exchange of money, but rather a barter of hides and tallow for manufacturing. They raised many horses because they loved them.

The friars planted vineyards and produced wine. They had gardens and they went in for irrigation. Yet in spite of all this they did not do more than raise enough for themselves. However, the friars introduced practically all the fruits that are raised there today.

In 1833 the Mexican Government began to secularize the mission lands--they took the mission land and divided it up among the natives. Private landowners got the lion's share thru their influence in Mexico City. The natives got very little. From then on the pueblos and private ranches were most important. The Spanish land system concentrated the bulk of the land in the hands of a few.

Gold was discovered late by the Americans on a branch of the Sacramento. There was a rush. The wiser people turned to agriculture and made more money than if they had hunted for gold.

The 50's were a golden era. The peak was 1852 for gold proper. But every field of activity was occupied. By 1860 California in the industrial sense reached a parting of the ways and had to decide what California was to do. This was especially true of agriculture. It seemed logical that they should continue to raise cattle, but a severe drought in 1856 dealt it a blow and prices were low. In 1861 there was a dry winter followed by floods. The drought of '63 and '64 definitely put an end to ranching as an industry.

(Look up maps on California by Guy-Harold Smith in Lobeck)

Sheep industry came in the 70's, but the breed suffered equally from drought. They turned to dairying. Next came wheat. There was a rapid increase and then a rapid decline. England bought her wheat from California directly. Barley was tried but increased more slowly. Here machinery was first tried out--combines. They could be used with advantage because of the climate--long, dry summer. The advent of the railroads and the influx of settlers upset conditions.

Arpa Harsztay introduced grapes and was the father of viticulture. The introduction of refrigerator cars in the '80's helped the grape industry. With the vines brought in from Europe came various pests--phylloxera. These squeezed out the amateurs and left just the commercial interests. Half of the production was made into wine. Only 20% were exported outside of California for table use.

4% were made into raisins; the rest were made into brandy. The grapes were strong, so experimentation with soils, etc. were tried to improve grapes.

1872 saw the first attempt to produce raisins in the United States. They made about 6 tons. In 1900, 47,000 tons were produced per year.

Commercial fruit growing outside of the mission gardens began with the gold rush. Greatest progress came after 1880 and then again after 1900. It took a long time to adapt necessities of commercial fruit growing to the California climate. Eventually the citrus industry won out. They experimented with sugar beets, sugar cane, silk culture (because the mulberry tree flourished), and even tried tobacco. Seed of the eucalyptus tree was brought in from Australia in 1860. They grew well in California.

History of Milling: The decline of the northwestern flour mills was due to the rise of winter wheat farther west.

Milling was practiced since primitive man crushed his grain on a boulder. The next step was grinding it with a saddle stone and roller. Then comes the quern (2d century B. C.) consisting of two flattened stones the upper revolving on the lower. In Roman times you have a slave or animal driven mill. The stones were cone shaped. The Greeks are supposed to have had water mills (5th century B.C.). The first wheels were horizontal, the next were vertical. At first the stream current was utilized and then later came flumes and dams. There were floating mills, then tide mills, wind mills were not used until 12th century A. D.

In the Middle Ages mills were very important as each community tended to be self-sufficient. The early mills were operated by the monastic orders, towns, or lords of manors. Milling was practically a monopoly. To avoid tolls, the peasants began to use hand mills (13th century A.D.).

The baking guilds bought grain, arranged for its milling and then had practically a monopoly on the baked products. When the colonists arrived they brought hand mills. Great encouragement was given the millers to build mills, etc. At first wind mills were used, then the water mills came in and soon predominated.

At the end of the colonial period the commercial mills began to appear around Philadelphia on the Brandywine and Wissahickon and to a lesser extent at Valley Forge. As early as 1750 there was a fair degree of technical skill. In 1782 Oliver Evans and his brothers contracted to build a new mill. They determined to apply power to all the operations of the mill and not just grinding. They developed conveyor, elevator, hopper bag, etc. They were patented and then there was great opposition, eventually a special act of Congress saved them.

As a result, of their improvements mills moved to town, they went in for large scale production, or concentration and specialization. Wheat shifted from the Atlantic Coast to Ohio to the Northwest. Before the Civil War, Baltimore led in the milling. In 1820 Richmond and Rochester were focal points. In 1865 St. Louis and Minneapolis were foremost. Since then Buffalo and Kansas City have come up.

New wheats have led to developments in milling methods. First improvements were in cleaning and application of steam. Faribault (Frenchman), Alexander, knew a French process of milling that could be used for hard, flinty spring wheat. Iacris, Nicolas, and Eduard were brought down from Montreal to grind the wheat, they had a midlings purification process. The basic principle is described as "gradual reduction process." These mills had the leadership of the markets of the world.

Roller mills in a few years came in. Eventually the mills at Minneapolis took over those of Cannon River and utilized their processes. The mills of Minneapolis

were tied up with capital, railroads, and private ownership. These mills formed a purchasing association.

The greatest change has been the testing of wheat and flour. Another development is artificial bleaching. This cuts production costs and saves storage costs (the longer it stood, the whiter it became). Increased use of macaroni products and breakfast foods were added. The vogue for dark breads had its ups and downs. Northwestern mills have decreased in importance due to increased freight rates. Minneapolis built its mills in other sections of the country. Another problem is the dwindling supply of high grade red spring wheat. Farmers objected to the Minneapolis mills, said they forced down prices, regulated the elevators, railroads, etc. The state came to control the elevators.

Western Hay and Pasture Region:

The western prong of the Pacific northwest Hay and Pasture Region extends from Monterrey Bay up to Matannska Valley, Alaska. The interior prong begins at the Sierras and extends northward about the size of the cotton belt of the United States. The principal area is a valley trough extending from Puget Sound to Rog^{ue} (?) River Valley.

A smaller area extends along the Pacific south from the Olympic Mountains. It is primarily a forest region, originally occupied valley floors. The valley floor of Rog^{ue} River ~~was~~ covered with brush before it was taken over for agriculture. There is a valley trough from West Oregon to British Columbia that is a recent development so there is not much agriculture. It is too far from markets, so the produce is marketed as canned or dried goods.

The Umqus Valley is 60 miles long and 30 wide. The Willamette Valley is 125 miles long and averages 20 to 50 wide. It contains over a million acres of improved land, 14% of the total area of Oregon and is the residence of 64% of the people. The climate and soil are favorable for farming. The valley is flat, open country. The first farmers came over the Oregon Trail. In 1842 there were 100 pioneers, in 1843 1000, and in 1844 there were 1400. The motives for settlement were: (1) missionary, and (2) an attempt to save Oregon for the United States. During the 1840's they raised wheat and sold it to the Russians or the fur traders, or shipped it to Hawaii. In 1880's they shifted to fruit raising. Salem became the center of hop growing and the focal point for fruit canning, linen mills, because the flax climate was similar to Ireland.

Cowlitz Valley north of Portland is 30 miles wide and is used for general farming there is no specialization. Puget Sound Basin includes the sound and the surrounding shore. It is slightly cooler and has more rainfall than the Willamette, consequently it is more difficult to clear of timber. The Department of Agriculture sent experts to see why the people did not settle this valley. They found it was too hard and too expensive to clear the land. So it is an area of stumps and undeveloped land. Dairying and poultry raising are more common. The people are now raising garden products and flower bulbs. The people began to move into the cities. The state passed laws designed to encourage farming. Constant washing out of the soils by heavy rains takes the minerals from them. The Puget Sound region has a climate similar to that of England. One settler from Elgin, Ill., began dairying, established a creamery, later turned to cheese manufacturing, and it became the center of cheese production on the Pacific coast. Cheese led because it was better adapted to shipping.

Agencies Promoting Agriculture:

1. Individual leadership
2. Societies
3. Fairs
4. State Boards of Agriculture
5. Periodicals.
6. Educational Institutions.

Pp. 168-172 contain references related to the sociological aspects of individual leadership. Individual initiative in the 17th century was for the individual, eventually it included the benefits of others. Out of this grew the societies

Master farmer movement began about 1920 by the Prairie Farmer. It was then taken up by other writers. Clifford B. Gregory started the movement. It consists of a survey of individual farms--the set-up, farmer himself, and his management of his plant and home. They scored and those that pass are taken to a banquet at Chicago where the outstanding ones receive medals.

Agricultural leaders include scientific men--botanists, biologists, chemists, entomologists, even road-builders, etc. There are very few writings on the dirt farmer--except Russell Lord's "Men of Earth." Olgilvie's "Pioneer Agricultural Journalists."

Agricultural Societies: There is no single good book and no articles on this subject. The tillers of the soil organized for mutual benefit existed in Roman times and the Middle Ages, but it needed the agricultural revolution to bring out the modern mode of organization. Great emphasis was placed on rural life.

- 1764 - first agricultural society in Germany.
- 1761 - the French Academy of Agriculture began to issue publications in France
- 1762 Free Economic Society was formed under Catherine the Great in Russia. they had an experimental farm outside of Petrograd.
- 1765 - a society was organized in London.
- 1777 - a society was organized in Bath, which issued publications in 1780.
- 1723 - the Scottish Society of Agriculture issued publications, also
- 1785 - the Highland Society of Scotland at Edinburg.
- 1731 - the Irish Society and also one for Denmark.

These are rather composed of large land holders, etc. The early American Agricultural societies were much influenced by those of England, both in organization and practice. But the Board of Agriculture was a model for the Department of Agriculture (in part). In 1763 the Long Island Society did not confine its activities to agriculture. the Planter's Society in the lower Atlantic Coastal Plain were also formed.

In 1785 the Philadelphia Society for Promoting Agriculture which has continued to the present was formed. It served as a model for others in the United States of that day. Frequently called the first, this is really not correct, for the American Philosophical Society (1744) preceded it and also continues to the present. It included many articles related to agriculture in its publications.

John Beale Bordley was the leading light in the Philadelphia Society. He had a plantation on the eastern shore of Maryland. He was a judge and lawyer, but he was greatly interested in agriculture. The membership was quite a noteworthy list--G. Washington, Ben Franklin, Judge Peters, Robert L. Livingstone, Noah Webster, etc. In 1794 the Society tried to get Pennsylvania to incorporate a State Society to be linked with education. They also urged country Societies, "pattern farms", places where foreign and domestic plants would be tried out.

From 1785-1820 it did some very good work. None of these men were actually dirt farmers (gentlemen farmers instead).

In 1740 a group of planters in South Carolina interested in indigo got together and discussed their problems. The Wyneyaw Society was the founder of a school in 1755. The South Carolina Society for Promoting and Improving Agriculture was formed at Charleston in 1785. Ten years later the Agricultural Society of South Carolina replaced it (its new name). The most prominent citizens belonged. The 'endleton' Farmers' Society started in 1815, was chartered in 1817, and is still running. It is near J. C. Calhoun's home. The building was erected in 1827 and still stands.

Similar societies in Kennebec, Me., and Hallowell, Me., were organized in 1787. Charles Vaughan was the leading light. In 1807 the Kennebec Agricultural Society was in existence and it lasted through most of the 19th century. The Vaughan brothers visited gardens, orchards, nurseries, etc. throughout the area. The society held several exhibitions.

Some early societies were formed in Massachusetts, New York, New Jersey. These were part of the spirit of improvement following the agricultural revolution. These organizations were not practical organizations of dirt farmers, but men of all professions who wanted to help agriculture. They were pioneers in the task of agricultural education. They advocated plaster of Paris (Gypsum) to counteract soil acidity.

Alkanah Watson, a New England merchant, who retired to Pittsfield where he spent his time on agriculture, is the father of the agricultural fair. The second wave of agricultural societies we must tie up with him. He started with an exhibit of his merino sheep in Pittsfield. Watson decided to make sheep showing an annual affair. The Berkshire Agricultural Society was organized by him. He wanted a society with a democratic basis, dirt farmers, etc. He admitted people by application. From 1811-1820 agricultural societies were organized according to his plan. It is estimated there were 100 societies included in his system. Each one a law to itself.

There was a decline in societies in the 1820's. Finally the societies induced the state governments to appropriate money to them (1817). The repeal of state aid for agricultural societies caused them to fold up. The state agricultural society continued in Massachusetts.

Eventually in 1852 the people wanted all the state societies and county societies to be welded into the United States Agricultural Society. Its program was to coordinate the work of the various agencies. This was a forerunner of the Department. Prior to 1862 the U. S. Agr. Soc. split into several sections--it is hard to say whether or not the society influenced the formation of the Department of Agriculture.

The waves of enthusiasm for agricultural societies could probably be tied up with political movements. After the Civil War the American farmer was confronted with new economic problems. The farm societies tend to be more political. The Grange was a social organization and has remained such, but it played a part in politics none the less. The Grange began in 1867 and it is not strongest in the Pacific northwest and New England. It is quite conservative.

With the increase of scientific knowledge and technology there was specialization in the societies. Thus there were horticultural societies which were strong enough to have Boards of Horticulture formed in the various states. These were early, but not until late in the 19th century were other types developed. There were breed societies which kept a register of thoroughbred stock. Societies specialized in nuts, fruits, vegetables, etc. Then the American Society of Agronomy, the American Farm Economist, etc. came into being. Many of the old societies disappeared except as the instigators of fairs. Farmers clubs since 1900 place their emphasis on community improvement.

Agricultural Fairs:

These were a vital part of the activities of agricultural societies. The fairs looked towards great improvements. There is a book by Nealy called The Agricultural Fair. The early literary agricultural societies did nothing to popularize knowledge except through their pamphlets. Alkanah Watson and his Merino sheep led to the founding of the Berkshire Agricultural Society. George Washington included the granting of premiums in his proposed Board of Agriculture for the United States. In 1804, 1805, and 1806 there were fairs in Georgetown. They were a combination

fair and market and were given congressional patronage.

- 1) 1810-1870 - leadership was in control of farmers and was the main function of the agricultural societies.
- 2) 1870-1910- Period of world fairs
- 3) 1910- Special fair ground with educational features, governmental agencies and their exhibits, commercial advertising, etc.

(1) The societies had the whole burden of experimentation, education, etc. Consequently the fairs were educational. They were like the farmers' institutes. The early ones were built on English models. There was a rotation of places for the fair. Transportation was bad so the state fairs were held in various places at various times. Much of the work was done on the spot. County fairs lasted 2 days, State fairs, 3 days. The grounds were small and there were no permanent buildings. The rivalry between cities led to the downfall. The fairs were financed by public contributions. The prizes were usually all honor. Some states required a statement of method of production (vegetable or animal). These early fairs had evening sessions. There were informal forums, lectures, etc. They put great emphasis on annual addresses. A great favorite was Horace Greeley. Lincoln did a little at the State fair (Illinois). The amusement features were strictly subordinate. They had ploughing races, they had "trials of speed" (horse racing). Fairs were orderly. The Civil War had a very unsettling effect on the farm life. The Indian uprisings upset fairs in the pioneer communities. Also the other agencies arose--schools, U. S. Government, etc. The state fairs settled down to one place in the state.

(2) Now the world fairs begin to rival the state fairs. These took the trade from the small fairs. The chief educational function rested on farmers' institutes, etc. There was horse racing, bicycling, balloon ascensions, auto races, etc. Night sessions were called off and other forms of amusement were introduced. Then came sideshows, games of chance, drinking, gambling, etc. A lot of the change was due to the rapid urbanization of the country.

(3) The fair ground are now a special set up, the buildings are permanent. The fair association has a business manager. The educational features are by-products of the agricultural colleges, the government agencies, clubs, etc. There have been health clinics, and visual propaganda. There is advertising of commercial products, agricultural engineering. Then came the pageant. During the world war they even imported operatic stars.

History of Farm Periodicals (pp. 181-184 in syllabus).

This history is difficult to obtain because of the variation in content of the many magazines, as well as the variation in content in different sections of the country, and at different periods of time. A.L. Demorey at Dartmouth is making a study of farm periodicals prior to the Civil War.

The Southern Planter is usually considered the oldest. It was published by Batts in 1841, it stopped during the Civil War, and was revived after four or five years. The Prairie Farmer was published about the time of the Civil War. Wallace's farmer started in 1880, merged with the Iowa Homestead during the depression. It is impossible to decide which is the oldest periodical. The American Farmer started in April 1819, and set a pattern which the others followed.

J. Houghton published a magazine in England from 1776-1780. Most farmers' magazines and the daily papers featured agricultural sections.

The New Jersey gazette of 1776 carried articles on farming and flax raising. The Newto Farmers Journal published in 1797 had agricultural topics.

In Washington, D. C. the Columbian agricultural society published the Agricultural Museum, edited by Rev. David Wiley, which appeared July 4, 1810. Wiley was a jack-of-all-trades--minister, teacher, librarian, superintendent of turnpike, secretary of the Columbian Agricultural Society and publisher for about two years. The contents of this journal were extracts from news of agricultural societies, articles written expressly for it. It was first published semi-monthly and then monthly.

From 1810-1830 the American Farmer, published by Jno. S. Skinner, postmaster of Baltimore led the field. He had as his motive, sincere love for and a desire to improve farm life. The subscription cost \$4.00 a year. Later the name was changed to Farmer and Gardener. Ploughboy was published in Albany in June 1819 by Solomon Southwick, who wrote rural verse under the name of Henry Homespun, Jr. The title was chosen to suggest democracy and unsophistication. The New England Farm (1822-1913) the New York Farmer (1828-1937) Southern Agriculturist (1869 to present) all had a long run. From 1830-1850 journalism gained quite a foothold. The Genesee Farmer started in Rochester, N. Y. by Luther Tuck in 1831 had views and a personality that made the paper the leading guide for people living within hundreds of miles. Ultimately it consolidated with the Country Gentleman, similar to Ploughboy. The Country Gentleman had four departments--fireside, grazing, horticulture, and agriculture. The Albany Cultivator by Jesse Buel advocated systems of cropping, use of manure, rotation of crops, etc. In 1834 it was 25¢ per year, and at the end of the first year was in debt. In 1838 it had a subscription of 23,000. Buel's motto was "Improve the soil and man's mind." After his death in 1839 the paper was sold to Luther Tucker and was combined with the Genesee Farmer.

In 1840 the Union Agricultural Society published the Prairie Farmer. In 1858 it was absorbed by another magazine. Orange Judd was the editor of farm papers. There is no satisfactory data on the circulation of magazines at that time.

Colman's Rural World (1848-1916) started as the Valley Farmer. It is credited with being the greatest authority in the Mississippi Valley and the West. In 1916 it absorbed another journal and was known as Missouri Ruralist. The Farmers Register was the mouth piece of Edwin Ruffin, father of soil science, who was its editor from 1832 to 1861. He popularized the use of marl. His objective was the improvement of farming conditions in Virginia and the Atlantic Coastal states, to keep the people from going West.

Little progress was made in farm journals from 1850-1870 because the war brought a about a depression. The period 1870-1890 was one of rapid development of journals due to the rapid agricultural expansion. The editors who come to the fore after the war were really specialists in various fields of agriculture. They advanced technological developments.

Hoard's Dairyman, was a leading agricultural journal. Hoard himself was a great leader. The Breeder's Gazette chiefly concerned with beef and pork production also came out in this period. Foreign language journals made their appearance. Akergrunds Zeitung came out in Milwaukee. It was published only in German and was a monthly at first and then a weekly. Soon other papers appeared, but due to the tightening of the immigration laws, the magazines went down in point of numbers.

There were journals on bees, poultry, tobacco, various breeds of cattle, etc. There were agricultural sections in the great dailies. Some of these papers still have agricultural news, such as Kansas City Star, Minneapolis Tribune.

Development of Department of Agriculture (United States)

There were attempts to supply government aid to agriculture when the British colonies were founded. This was true in the 17th century. It was a part of the idea of empire. As early as 1632 special legislation was passed by Parliament to cause mulberry trees to be planted for the culture of silk worms. There are many examples of government aid to agriculture in the colonial period. John Adams is one

of the first to propose a department of agriculture (these were really resolutions with regard to agriculture). George Washington in his last message to Congress recommended the formation of a Board of Agriculture. He communicated with the leading agriculturists in Europe also with those in the United States.

An agricultural committee was not set up in the House until 1820. The Senate set up one in 1825. The department of agriculture really grew out of the introduction of plants and animals from foreign countries. Franklin, while in Europe, sent back foreign seeds and plants, as well as domestic animals. These went to his friends and the learned societies. This practice was continued by the consuls and the naval officers. In 1826 Congress authorized the publication of a manual on Growth and Cultivation of silk Worms, written by Benjamin Ruth.

1836 saw an agricultural division in the Patent Office under the Department of State. The leading light was Henry L. Ellsworth. In 1837 Congress appropriated \$1,000.00 for the collection and distribution of seeds, etc, and agricultural statistics. This probably was the real beginning of the Department of Agriculture. From 1852 specific mention is made for purchase and distribution of seeds.

Soon after the formation of the government, the Patent Office displayed models of patented agricultural implements. When the Department of Interior was created, the Office of Patents was withdrawn from the Department of State. In 1850 the Patent Office fell among second rate politicians. In 1860 then the Republicans nominated Lincoln, they pledged themselves to the formation of a Department of Agriculture and the Homestead Act. The bills for the Department of Agriculture, Homestead Act, and Land Grant Colleges all came thru in 1862. Isaac Newton, the Commissioner of Agriculture, presided over the first Bureau of Agriculture. It did not have cabinet status at that time. Horace Capron succeeded him. He had a cotton factory at Laurel, Md. After leaving the government, he held a post under the Japanese Government.

Next came Judge Frederick Watts from Pennsylvania. He took up farming and by 1871 became the head of the Department of Agriculture. Under sections on botany and entomology were set up. He urged the preservation of forests.

(1877-1881)

William G. LeDuc came next from Ohio. Eventually he graduated from King's College. He had sold books, studied law, went to Minnesota and mixed in everything including flour mills. He had held various offices. He was opposed to the indiscriminate distribution of seeds. During his term a special appropriation was passed for the investigation of animal diseases (hogs, cows, etc.) particularly pleuro-pneumonia. Investigations of insect diseases were initiated and an agricultural farm was purchased. Under him first attention was directed to irrigation especially the use of artesian wells.

George B. Loring (1881-1885) He was educated as a doctor, but took up scientific farming and politics. Under him experiments were made on sugar, sorghums, and methods of production, irrigation, insect and animal diseases. There were troubles between the farmers and the ranchers on the plains, and trouble with shipments of diseased meat to foreign countries. Quarantine was then taken from the Treasury and set up under the Agricultural Dept. The Bur. of statistics was set up. Free seeds were distributed, a foreign office was set up. Experiments in silk were continued.

Norman J. Colman (1885-1889) was the last Commissioner of Agriculture and the first secretary. He published Colman's Rural World in Missouri. He was a New Yorker, a lawyer, but devoted his time to the improvement of agriculture. The Department was enlarged in 1889 to be an executive department, with its head a cabinet member. Colman only served from Feb. 9 to Mar. 4. This change was largely due to the Grange. The Experiment Stations were started under the Hatch Act (1867). The Land Grant College Act (1862) . the Division of Public Highways was set up, and the rapid decrease in forests led to the Timber Culture Act.

Jeremiah M. Rusk (1889-1893) was a colorful character. He came from Wisconsin and served as congressman and governor. He was born in Ohio, had a stagecoach, a tavern, and was a farmer. After the War, he was State Bank Controller. He had been a Brigadier-General in the Civil War. He was Governor three times, and settled a strike in Milwaukee "I seen my duty and I done it." He initiated the inspection of meat for export, popularized the work of the department, set up a division of publications, and brought back the Weather Bureau.

J. Sterling Morton (1893-1897) is known chiefly as the originator of Arbor Day. A native of New York, his family went to Michigan and then to Nebraska. He was a Senator and Governor. He was a hard money man, also favoring a low tariff. He was very unpopular with the farm papers.

James Wilson (1897-1913) lasted thru the McKinley, Roosevelt, and Taft administrations. He has been heralded as a great statesman? He served while agriculture was on the up and up. He led in the agricultural development of the Northwest. His name is connected with Iowa. He came from Tama County and has been nicknamed "Tama Jim." Under him a Bureau of Forestry was set up, new lines in plant industry were tried, Bur. of Chemistry, Soil, Biological Survey, Entomology, Statistics became a bureau. The land at Arlington and Beltsville was purchased.

David J. Houston (1913-1919) during Wilson's administration, was the first secretary who did not have active contact with agriculture. He had been a professor of economics and a college president. Much of his work was expanding the Department. He expanded agriculture to meet the world market. Houston reorganized the Department. He also called conferences towards the economic work of the department which led eventually to the BAE. The Smith-Lever Act, an extension of the work of the Department of various state agricultural colleges; the Federal Road Act, to aid the farmers; the Farm Loan Act; Reserve Act; Grain Standards Act; Warehouse Act; were all passed. More constructive work was passed in the first Wilson administration than in all the others.

Edwin T. Meredith of Iowa was the next secretary. He published Successful Farming. Under him attention had to be paid to curbing production. Marketing was brought back.

Henry C. Wallace, of Iowa, the father of the present secretary farmed for many years. He was editor of Wallace's Farmer at Des Moines. He was a militant agitator for the farmers. He reorganized the Department on peace time basis. Appointed a Director of Regulatory Work, Director of Extension Work. Organized Bureau of Home Economics, Bureau of Dairying. He called agricultural conference in 1922-23. This was the basis of the McNary-Hagen Bill. He died while in office. There was a constant struggle between Henry C. Wallace and Herbert Hoover.

Thomas Gore, the assistant secretary was moved up, but he shortly departed to be the Governor of West Virginia.

Jardine, served under Coolidge, and Arthur M. Hyde served under Hoover. He had been Governor of Missouri.

Farmers and Political Activity (After 1860):

This may be divided into two major periods:

- 1) Republican domination 1860-1933
- 2) Democratic " 1933---

For the most part we have had Republican presidents. Cleveland had two terms but didn't disturb the Republican regime. Wilson's first administration was one of great activity for agriculture.

Lincoln in 1860 won because the Democrats split.

Johnson in 1865 was a democrat who was put on the ticket to boost the republican chances.

Grant - had two terms, there was talk of a third term, but the politics were too rotten.

Hayes - 1876 was an honest politician.

Garfield

Arthur had a bad reputation, but did pretty well in office.

Cleveland

Harrison

Cleveland

McKinley - the election of 1896 was a struggle between Bryant and McKinley.

this was really a farm struggle.

Roosevelt - came in after assassination of McKinley

Taft

Wilson

There was a liberal Republican movement largely in response to the abuses rampant in Grant's administration. Some republicans organized a new party of third party in some mid-western states. This was not a farmer movement. Then came the Granger movement (1875-1876) In the 1880's farmers organized clubs—alliances that became the basis of a political movement. This reaches its crest in the Populist movement in 1892-1896. The Republicans were maneuvered by Mark Hanna. Next came the Progressive Movement, not definitely a farmer movement. Next the Non-partizan league and the McNary-Hagen movement.

The Granger movement started in 1866. Johnson sent a clerk through the field to gather statistics. This led to the formation of the Grange. Oliver Hudson Kelley was sent. He was more than a collector of data or a compiler. He was about 40, very dignified with a long beard. He knew farm life from his own life in Iowa and he realized the lack of social life in rural communities. Being a Mason, he thought a secret club would be just the thing. He consulted his niece and she insisted that women be admitted, too. Wm. Saunders, Ireland, Trumble, Tompson, McDowell, worked together. He had seven clerks in all and they organized in 1867 and put the ritual into swing. He then did some high propogandizing through the farm papers. They wanted to improve rural life bu education. It got mixed up with politics in Minnesota and finally in 1868 Kelley resigned to devote his full time to the Patrons of Husbandry. He sold dispensations "the right to set up separate units of the national order." The first unit was at Newton, Ohio in 1868, another at Red Star, Minn. D. A. Robinson gave it a political twist. He rewrote the propoganda. At the end of 1869 there were 37 granges in Minnesota. They covered 9 states in 1870. By 1871 the Grange was well towards becoming a political movement. They came to try all kinds of cooperative movements. They blamed the railroads for all their troubles. At the first the people wanted the railroads, but they (the RR.) abused their privileges and consequently the railroads were attacked first by the farmers.

The Grange established the principles re the railroads that they should be regulated for they are a public utility. They are a monopoly, so they have certain rights to the public. The state has a right to regulate the fees. This brought about permanent improvement in railroad regulation. The Grange did a great deal to help farm life. There were notable improvements in dress and speech, They organized cooperatives for buying and selling.

The Liberal Republican Movement: This failed because it was an intelligenzia movement, not based on real grievances. It grew out of Grant's administration. Many thought Grant was a military autocrat. Many realized reconstruction was a real looting of the South. The movement started in Missouri in 1870. B. Gratz Brown was the nominal leader, but Carl Schurz was the real leader. He served as Secretary of the Interior under Hayes. He had principles and foresight. He saw the need for conservation. Ultimately he led in the movement. They wanted to remove political obstructions, change the tariff, revise Civil Service, opposed giving the public domain to private companies, opposed the repudiation of national debts.

A new party was formed at Cincinnati to oppose the third term of Grant. It was really a great hodge-podge. The platform contained the items listed above. Francis Adams, Horace Greeley, Gratz Brown, etc. were all up for nomination. Greeley was selected, but he was unsatisfactory for he had condemned the Democrats, was against the tariff reform, so that the reformers and the conservatives distrusted him. The movement failed because it was not of the masses. There was no appeal for the farmers in spite of the abuses that existed. Ignacius Donoley, shows up in all the political meetings. He tried to tie up the various movements with the farmers.

The Greenback Movement: The Civil War was financed by taxation and borrowing. Out of the latter came wrangling that lasted for 40 years. The money was raised by high tariff, internal revenue, and income tax. The Government borrowed on long and short time loans. Then they issued greenbacks--450 million dollars in paper money. 2,785,000,000. The Government suspended specie payment. After 1864 confidence in the money declined and the dollar went down to 39¢. In 1869 the Government passed an act stating bonds should be paid in coin. Meanwhile the northwest wanted more currency. The Supreme Court first declared against it, and then with a new membership declared for the act. The inflationists wanted cheap money to reduce the debt, but the bond-holders wanted paper converted to specie. In 1878 Congress said the part outstanding would remain in circulation. The greenbacks fluctuated from 90-45-81.2¢. The Greenback movement was over by 1876. It took place with the Granger Movement. It has farmer phase and a labor phase. The leader of the Greenback Movement was James B. Weaver, who ran for president. Later came Benjamin F. Butler who was nominated in 1874 and got 175,000 votes.

Farmers' Alliance Movement or Populist Movement came in the 1880's. There was no concerted action until the '90's. There were farmers' clubs springing up all over the country more or less spontaneously. The first developed in Texas, those in Arkansas were called Agricultural Wheels. There was no organic relationship. In the upper Mississippi Valley the idea was to bring these together under a national organization with the Texas-Louisiana groups. The stumbling block was the blacks. The two groups came together at St. Louis in 1889 as the Northern and Southern Alliance. In 1890 these clubs believed they could only get action through union and political action. On July 4, 1892 in Omaha, Nebr., the Populists met and adopted the very notable platform, which summarizes the unrest of a generation:

- Regulation of Railroads--Government ownership and operation of RR.
- Postal Savings
- Income Tax
- Women's Rights
- Popular election of Senators
- Initiative and Referendum, recall.

By 1896 Bryan and the Democrats swallowed them up. Next came cheap money and ratio of silver 16 to 1.

Farmer Movements (cont.)

These were taken seriously by sounder elements in the country. The platforms did not strike directly at the Capitalists, but had the Populists won in 1896, there would have been a revolution in social structure. The Populists sought a re-orientation in government attitude towards agriculture. They wanted the government control of railroads, financial system, preservation of national resources, a lower tariff, and would have wiped out the gains of the industrialists, the gains of the North through exploitation of the South. It was a revolt against control of the country by industrialists. This was the last united stand of the country's agricultural interests. An attempt to beat back industrialism and return to the agricultural order was tried. After 1896 the capitalists had a free and easy time of it. This movement was the last effort of agrarianism started under Jefferson.

The Alliances merged into two general groups: The Northwestern Alliance and the Southern Alliance. Both met in St. Louis plus colored group, Knights of Labor, etc. The most that happened was the the Southern resolutions were agreed upon by the Northwest. Out of this came the Sub-Treasury Plan. Many phases of it have since been achieved.

The plan was C. W. Macumb's idea, the editor of a farm paper. He thought that financing agricultural marketing was the great problem. The Government was to establish in every agricultural county a sub-treasury office and an elevator or warehouse to which the farmers were to bring their non-perishable products. They received certificates for the goods deposited and these were to be negotiable and worth 80% of the sale value of the produce. The products were to be sold within a year, if not they were to be sold at public auction. Macumb argued this was as sound as Government aid to banks, railroads, etc. It would furnish sorely needed easy money credit.

The focal point was Kansas, Nebraska, and South Dakota. The agriculture of the more humid east was tried in the Great Plains. They had to adjust their agricultural techniques to suit the climate and soils. Settlement took place in a wet cycle, and then came drought, grasshopper plagues, tornadoes, etc. The people suffered greatly and there were political upheavals. Mary lees, a Kansas farmer's wife of fair education was bitter in her attacks and led the way, Sockless Jerry Simpson opposed an elite Congressman and got him out of office. The Populists of Kansas sent 5 members to Congress and 1 senator as well as ruling the Legislature

In Omaha the platform made a very small issue of the free silver question. W Weaver was finally selected in 1892 and a Virginian. They got 22 electoral votes although they polled 1,000,000. They carried the small western states. The Democratic party as a result was openly split especially in the South. The Populists in '94 polled more votes and they made elaborate plans for the National elections in 1896. The Republicans were for the gold standard, protective tariff, no free silver, a firm, dignified foreign policy, they wanted Hawaii, Cuba, Danish West Indies, a National Labor Board, etc. McKinley was selected and the destinies were guided by Mark Hanna. The two men were a good pair. Meanwhile the Democrats got into a deadlock and Bryan made his famous "Cross of Gold" speech. Attention of the nation was then directed to Cuba and the Pacific. Bryan got himself jockeyed into the money question.

Progressive Movement in early 1900's. In some of its implications it is for the benefit of farmers. In local groups you get eventually congressmen and governors. There were two outstanding Republicans and Democrats: Roosevelt and LaFollette, and Bryan and Wilson, respectively. The great tragedy was that they were not in the same party. The pioneer in thought and action was Robert LaFollette, born in Wisc. in a log cabin, he studied law, served in Congress, and was governor. In 1890's he decided on the last to clean out the lumber interests.

Bryan was of enormous physical strength and many contradictions. He possessed great oratorical ability, but was intellectually lazy.

Roosevelt was a great "windbag" and became interested in conservation, improvement of country life, etc. and dramatized them for the nation.

Wilson was an intellectual aristocrat, and did not refrain from emotionalism to carry his points if necessary.

Read Solon Buck "Agrarian Crusade."

Non-Partizan league was formed in the upper Mississippi Valley. It was once a synonym for Pro-Germanism, riff-raff, etc. and was distinctly un-American.

The best books are one by Gaston. He was a newspaper man in Minnesota and North Dakota. Charles E. Russell, manages to attend most of the radical gatherings here in Washington. He lived in cognito while gathering material for his book in North Dakota. Fossum wrote on the Agrarian Movement in North Dakota. He accused all the ideas as being socialistic that he didn't like.

North Dakota was being exploited by Minneapolis and St. Paul. If they had not been a single crop area, there would have been no movement. It couldn't have taken place in Wisconsin where dairying flourished. The marketing of that single crop depended upon the two cities. It was more than transportation and utilization. The League was not a flash out of a calm.

Alexander McKenzie was a political boss who went out and preempted town sites along the railroad. Judson, LaMour, was another leading figure in the party. Directly or indirectly he was under pay of the railroads, banks, Insurance companies, grain elevators, etc. He was an Indian scout and ended up as sheriff. He also spent some time in Alaska. He dominated the French-Canadian element in North Dakota. McKenzie controlled the Scotch-Irish elements. There are Scandinavians, and the so-called German-Russian Mennonites in the state.

The first revolt came in 1892 when the governor vetoed the bill proposed by the Farmers' Alliance. The democrats, progressives, and farmers' Alliances met and elected a new governor who merely promised them a terminal elevator. There was another revolt in 1906, largely due to the leadership of three men, one led by LaFollette, one who hated politics, and one who headed the Scandinavian League. This revolt was against the current McKenzie and LaMour regime and their Congressional representatives in Washington.

Later the people of the Agricultural College were very progressive and they urged the adoption of livestock, diversified farming, raising less grain, etc. They preached to students, through the extension service, that new methods of farming should be used. They worked especially hard at the Tri-State Grain-Growers Conference. Meanwhile the American Society of Equity and Farmers' Union tried to sponsor cooperatives.

The wheat elevators led to so many abuses a poor farmer didn't have a chance. The banking situation was equally bad with high rates of interest from 12-51% The people felt that they had a real grievance against the railroads, because the freight rates were so high with little regard paid to service or extent of service. The railroad thought they owned North Dakota. Grading was also a great bone of contention. The farmers almost always lost, but when the wheat was being shipped out, the grade went up.

The Minneapolis Millers Association was a powerful factor in providing uniform prices in wheat. This was changed to the Chamber of Commerce in 1871. The

millers owned or dominated the Minneapolis banks. The Minneapolis millers really decided the political issues every two years.

Insect Non-Partisan League

One of the problems in the last decade has been the decline of agricultural exports. From 1900-1930 exports dropped from 61.2 to 31.8 percent. Agricultural prices sank after the war to below subsistence level. Many farms were sold for debt in the '20's. Many farmers lost their homes and equipment. Agriculture was in a tragic state throughout the twenties. Urban economists knew little about it and probably didn't care. Eventually it was business concerns who needed farmers as an outlet for their products that recognized the situation. These bring us to Hugh Johnson and George M. Peek. These two began the Mc-Nary-Haugen Movement.

This movement has agricultural support and also some industrial. The whole movement was aimed at the tariff. Either a lower tariff should be made, or else agriculture and industry should be placed on the same basis, so there would be a fair exchange of all farm products. It repudiated price mechanism of the capitalistic system. The main creed of the McNary-Haugen Bill was that since industry sold at home protected by high tariff walls and dumped the rest abroad, agriculture should be able to do the same thing. The McNary-Haugen Bill was finally pushed through in 1927. The newspapers didn't comprehend the problem facing the bulk of the country. Coolidge vetoed it as an "adventure in price-fixing." The bill was repassed in 1928 and vetoed with alacrity.

The campaign of 1928 included this question, but both parties were wary of saying anything about it. Hoover promised higher tariff and a Farm Board to manage crop surpluses, but he didn't commit himself greatly.

Next came the Agricultural marketing Act of 1929. Hoover did not think there should be any regulation of price-fixing of products. He set up a Farm Board with a revolving fund of \$500,000. They went on a cooperative formation spree. They held the surpluses until the warehouses could not hold the produce, but still the prices were not stabilized. The income of 1931 was lower still in spite of the Farm Board.

In 1932 the Democrats promised effective control of agricultural surpluses, and promised to do everything possible to secure prices for the produce above the costs of production. Roosevelt said we must have crop control. Wilson in 1931 devised the Domestic-Allotment Plan. The farmers were to cut down on produce and to be paid in commodities for this. Wooden, a representative of manufacturers believed industry could not succeed until agriculture revived. The AAA of 1933(May) was not the result of intellectual theorists. It was the product of experience, and many precedents. Gradually cases were brought against the Act before the Supreme Court. On May 6, 1936 the AAA was declared unconstitutional. Congress had no right to use taxes for agriculture, that belonged to the States. The SCS went on the books in 1936 under state control. The AAA Act of 1938 was very similar to the one passed previously.

Non-Partizan League: Mr. Robert H. Bahmer. In 1913 both parties in North Dakota pledged themselves to carrying out the terminal elevator at Duluth or Milwaukee, preferably the former. Arthur C. Townley now appears on the scene as the dominant figure. He thought an agrarian movement could be formed that would sweep through the States and free the farmers of the nation. He had been a bonanza flax cultivator in North Dakota (1200 acres in flax), hit by drought in the first two years and then by snow, he found the market was flooded and he went bankrupt. He gave up flax farming and became a lecturer for the Socialists. He decided to have a non-partizan party for the farmers. He got quite a following for he knew the bitter side of farm life. Moreover he had a glib tongue and spoke well. He organized the league in 1916. He was made president. They elected men for the primary election. Most of the people they endorsed were Republicans. The league candidates won. They favored cooperation in flour mills, elevators, etc. The Constitution didn't permit all these things, so they amended it. It was blocked, but they obtained petitions from half the counties signed by 50% of the population.

These were passed in 1919 and the league obtained complete control. The conservative elements began to discredit the league. The chief charge was that it was Pro-German. In the end Arthur C. Townley was arrested in Minnesota and thrown into prison. The leaders were denounced as Socialists, mountebanks, confidence men, visionaries, etc. Townley was attacked particularly. The most crucial incident was the establishment of a State bank. It was ruined by mismanagement in the end and by a boycott in the beginning. Then they set up a State mill, elevators and State hail insurance. The State tried to develop the lignite deposits. There was also great tax revision, State grain-grading and price range control. There was much social reform--raise compulsory school age, school nurses, night classes.

The movement spread over into Minnesota. They tried to use the same technique of endorsing candidates who would pledge themselves to the league reforms. This didn't work, so they soon found it necessary to set up their own party. The Farmer-Labor party is an outgrowth of this. Floy B. Olson was its guiding angel.

In Wisconsin the league found no use for itself due to activities of LaFollette. In Iowa they were confronted with more conservative situation. There was not much progress, but in Montana they did better.

In the elections of 1918, 1920, and 1922 in the upper Mississippi Valley there were great turnovers. 1918 was merely the beginning. There was dissatisfaction with the people who had served for years. The Federal Reserve Board deflated the farmers and as the howl rose they stopped and for a while no further deflating was done.

The campaign between Kellogg and Shipstead in 1922. Kellogg had served one term and was a brilliant lawyer and he wanted to stay in office. Shipstead was a dentist who was interested in politics and didn't do very well in dentistry. Magnus Johnson went to the Senate from Minnesota.

The 1920's saw development of the agricultural bloc or Farm Bloc. It was simply a group of Representatives and Senators who got together to act together for agricultural measure, regardless of party. In the Senate there were 22, sometimes 55. In the House there were about 100. It was not just a spontaneous movement on the part of the representatives. Sec. Wallace did quite a bit. The American Farm Bureau Federation did a lot too. The first meeting was held at the Federation. Kenyon, Capper, Norris, Ladd, LaFollette, Smith, Kendrick, Fletcher, Fansdell, Hefflin, Shepherd set themselves up into an extra-legal committees, i.e. Federal Reserve, Transportation, Marketing, Miscellaneous. The 12 grew to 22. A similar movement started in the House. Ultimately the bloc did a great deal to ameliorate the situation in 1921-1924. They secured

an amendment to the Farm Loan Act, Packer Control.

McNary-Haugen Movement. The Article by John D. Black is the best summary yet written. The McNary-Haugen Bill came up with the equalization fee for discussion in the House and Senate again and again until Hoover's administration. Coolidge vetoed it, but Hoover tried to get around it by urging great, huge cooperatives. The Farm Board was established as part of his tactics.

Commutation clause: in original homestead act. The homesteader might fulfill preemption requirements after first six months, by paying \$1.25 or \$2.50.

Sarah Boyle--Adams 8990

History of cooperatives: begins with Robert Owen. About 1820 he advanced the basic concept--a creation of a different social and economic order. He contemplated something more purposeful than cooperation in society today. He set it up as an alternative to laissez-faire and profit seeking. He carried on experiments in Rochdale, England.

He was an idealist and set up a community that would be self-sufficient. Fourier, a Frenchman, advanced a similar idea. They resemble communistic colonies rather than cooperatives as we know them. In the 1830's and 1840's there were many communistic colonies in the United States. Both of these men ignored the state as an instrument of change and urged the voluntary grouping of individuals for mutual work.

Louis Blanc urged cooperative workshops to be financed by the state. Lassalle in Germany did much the same thing. With the revolution of 1848 there is a shift to trade unions to bring about cooperation. The textile workers in England formed cooperative work shops; in Germany there were cooperative credit unions for agricultural products. There were agricultural cooperatives for marketing, purchasing, and manufacturing.

Each member had a vote regardless of stock held; the amount of the dividends was fixed. There were rules that a member must deal with his own cooperative.

Owen had more influence in Scandinavia than in England.

Consumer cooperatives preceded produce-cooperatives. Denmark has the best development of cooperatives. The first cooperative store in Denmark was that of Christiansen Storre.

The Irish Agricultural Organization Society was led by R. A. Anderson, "AE", Father Findley, and Sir Plunkett.

In United States there were a few early cooperatives. Next came the Granger movement.

Wellman, Paul I.: The trampling herd...Illustrations by F. Miller. 433 pp.
New York, 1939 .
At head of title: The Story of the Cattle Range in America.

The author writes as follows in his Foreword:

"The prime difficulty in any attempt to tell the story of the cattle land of America lies in the inexplicitness of the borders both of territory and of time. Cattle are grown throughout the continent, and men handle them and, sometimes, profit from them. Yet to call Illinois or Virginia cow country would be a manifest ineptitude.

"There is, however, a vast and somewhat indefinite area which, almost vaguely, attaches itself to the life and period we know as Western. Western does not apply to California or the Pacific Northwest. It applies to the territory between the Pacific coastal ranges and the general north and south line established by the Missouri River. It includes the whole of the great arid interior basin, the deserts, the plains, the brush country, the plateaus, and the mountains. Pretty well it defines the original habitat of the buffalo, of the prairie dog, of the coyote, of the antelope and of the lobo wolf.

"And the Westerner? History indicates that the great population movements on this continent have been from East to West. The gold rush of '49 poured across interior America by way of the Santa fe, Oregon, and Marcy trails. Later came the steady encroachment of settlement--working always from the East, gnawing bit by bit into the open range, eventually lapping over every bit of tillable soil not reserved arbitrarily by the government, and even turning with the plow the thin sod in areas which Nature had held only by a struggle and which, thus unbalanced, became desolate.

"On the other hand the population movement which filled the cattle country has been largely neglected by history. It was from the South to the North. Two hundred years were required by the East-West movement to occupy that part of the continent east of the Mississippi. Fifty years were needed for land emigration to finish preempting all the arable land west of the Mississippi. But it took only one decade and part of another for the cattlemen, streaming northward with their horn-spiked herds, to fill the great interior of the continent. And today the ways of living, the ideas, and even the talk of the range country still are predominantly Southern.

"Easterners are apt to look upon the West as raw and new. It may be of value therefore, to know that there was a lively, well-grown cattle industry in the Southwest long before the white man set his foot on Roanoke Island or Plymouth Rock. Next to war, and possibly to mining, the raising of cattle is the oldest industry of the white man on the North American continent. It began within two years of the start of the conquest of Cortes. It is flourishing today as strongly as ever. It has, in the intervening centuries, contributed possibly the most distinctive customs and mental attitudes of America, and certainly some of the most stirring chapters of its history."

Ogilvie, William Edward: Pioneer Agricultural Journalists.

John Stuart Skinner--The American Farmer--Baltimore 1819. This became The Farmer and Gardener, and when Skinner took it up again (n.s.) The American Farmer. He also edited the American Turf Register and Sporting Magazine and The American Silk Society and Rural Economist. With Horace Greeley and McElrath he published The Monthly Journal of Agriculture. At last in Philadelphia he began The Plough, the Loom, and the Anvil.

Judge Jesse Buel--The Cultivator (Albany) 1834. He did newspaper work in New York state and began farming late in life. This was a fore-runner of the Country Gentleman.

Luther Tucker--The Genesee Farmer 1839. He did newspaper work and founded the Genesee Farmer. In 1839 he bought the Cultivator and renamed it the Country Gentleman and made it a weekly. He also started the Horticulturist, a specialized farm paper. He was a member of the New York Agricultural Society and fostered cattle shows and fairs.

Orange Judd--The American Agriculturist (New York) 1853. He served as agricultural editor of the New York Times. He was against false advertising. He tried to bring scientific jargon down to the level of his readers. He was the principal instigator of sorghum sugar industry. He distributed free seeds. He lost out and became an editor of The Prairie Farmer. In 1887 he bought The Farmer and with his two sons moved it to Chicago as Orange Judd Farmer. He was instrumental in establishing Connecticut Agr. Expt. Station and was greatly interested in agricultural chemistry.

Norman J. Colman--Colman's Rural World 1864. He was a lawyer in Indiana, but went to St. Louis where he bought The Valley Farmer. He named it Colman's Rural World in 1864. In 1916 it became Journal of Agriculture. He also helped in preaching sorghum sugar production. He was governor, president of the Missouri State Hort. Soc., the stock breeder's assoc. and the state Bd. of Agr. He served as U. S. Commissioner of Agriculture and Secretary of Agriculture. He had a farm near St. Louis. He helped pass the Hatch Bill of 1887 establishing the experiment stations, and set-up the Office of Experiment Stations.

William Dempster Hoard--Hoard's Dairyman, 1885. He did most to develop the dairy industry of Wisconsin. In 1869 he began with the idea of an newspaper. He wrote a strong editorial column and also an agricultural column. He helped get suitable RR rates for Wisc. cheese. He helped pass legislation requiring foreign children to learn English in the schools while serving as governor. He bought a farm and specialized in dairy cows.

Wilmer Atkinson--The Farm Journal 1877. He was a newspaper man and worked in Delaware and Philadelphia. A friend of John Wanamaker's, he too was against false advertising.

James Harvey Sanders--Breeder's Gazette, 1881. He was interested in fine horses. His first publication was the Western Stock Journal, the first stock breeding journal in the world. After the panic of 1873 he consolidated with the National Live Stock Journal of Chicago. He also edited Sprit of the Times. He worked on Breeder's Gazette with his son Alvin in 1881.

Alvin Howard Sanders--the son. He did newspaper work at first, then worked on the National Live Stock Journal, where he checked breed catalogs. He took over the Breeder's Gazette after his father. He wrote a great deal on various breeds.

William Ransdell Goodwin--(member of the staff of the Breeder's Gazette). He was a superb livestock reporter. He worked on a farm, but loved to write. He was an excellent writer and speaker.

Joseph E. Wing--(also on staff of Breeder's Gazette). He concentrated on growing alfalfa east of the Mississippi River. He was an expert on the sheep industry. With his brothers he established the Wing Seed Co.

Herbert Quick. He was an agricultural novelist. He held an editorial post on the Farm and Fireside. He was a rural sociologist and under Wilson served on Federal Farm Loan Board and the American Rural Credit Association.

Henry Wallace--Wallace's Farmer, 1895. He studied for the ministry, but went to Iowa and became agricultural editor of the Madisonian. He had a paper of his own, then joined forces with The Homestead. His sons worked on The Farmer and Breeder, which later became the Farm and Dairy, promoting agricultural colleges. Their father joined them and they changed the name to Wallaces' Farm and Dairy, and later to Wallaces' Farmer.

James Melville Pierce--The Homestead, 1885. First he worked on The Grant City Star and then bought it. He had other newspapers before buying the Iowa Homestead in 1885. Henry Wallace and Mr. Lucas worked with him on it.

Herbert W. Collingwood--Rural New Yorker, 1885. He attended Michigan Agricultural College and worked on the Southern Livestock Journal. At first he worked on the staff of the Rural New Yorker, then became part owner in 1899. He has a farm in New Jersey from which he writes "Hope Farm Notes". He had a very dull New England childhood.

Nall, James Otho. The tobacco night riders of Kentucky and Tennessee, 1905-1909. 221 pp. Louisville, Ky., 1939.

Bibliography, pp. 201-206.

The author writes in part as follows in his Foreword:

"The Night Riders enacted the most dramatic episode that has occurred in the history of tobacco. Evading the laws that covered their activities but offered the organized tobacco growers little or no relief from overproduction and the monopoly of the Tobacco Trust, they sought adjustment through the mask, match, gun, lash, and hoe. The hoofbeats of their horses first rang out in 1905, to be followed by three years of warfare against the trust companies, their agents, and the non-organized growers and other persons who opposed the efforts of the tobacco associations to marshal the production of tobacco and to improve prices. They rose but to fall, but not until they had activated the forces that dissolved the trust and brought brighter days to the tobacco fields of Kentucky and Tennessee."