THE FARMER'S USE OF CREDIT THESIS FOR DEGREE OF M. S. (VAN WRIGHT 1917

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Thesis for Degree of M. S.

Ivan Wright

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THE FARMER'S USE OF CREDIT.

Introduction.

It would be a much easier task to re-tell the story of the farmer's need for credit; the German system of satisfying rural credit demands; or even to devise a plan whereby the farmers of the United States could be furnished with ample credit facilities. But none of these phases of credit are to be discussed under this head. For after compiling a bibliography of the subject of Agricultural Credit, as complete as it is possible to make a bibliography by consulting Pool's Index, Reader's Guide, Faxon, Rhodes Journal of Banking, Rand McNally's Banker's Monthly, Banker's Magazine, Chicago Banker, New York Times Index, The Experiment Station Record, Agricultural Index and the Agricultural Credit and Rural Economics files of the Library of Congress, the writer is unable to find a single book or periodical pointing out the uses the farmers of the United States have made or are making of credit. However, there are a few brief articles which indicate the use of credit locally for specialized types of farming as the growing of cotton, tobacco and sugar beets. Most of these treatises on the subject will be referred to later, giving full recognition to the authors and sources of information.

Since the uses the farmers have made and are making of credit are undoubtedly the best evidences of their capability to handle credit, it is the aim of the writer to set forth in the following pages, the applications of

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credit by farmers. To do this authentically I shall make use of such exerpts and hints of the farmer's use of credit as can be found in the literature of Agricultural Credit, the reports of bank commissioners throughout the United States, Government statistics, the information furnished by the Federal Farm Loan Bureau and the Office of Markets and Rural Organization, and personal letters from rural organizations, banks, fertilizer companies, implement dealers, farm supply companies and dealers in livestock and feeding stuffs and farmers who have mortgages on their farms.

Classification of the Farmer's Credit.

In order to discuss the farmer's use of credit, it will be found convenient to separate the subject into two distinct parts - first, long-term credit and second, short-term credit. Long-term credit is the form generally used to buy land and make permanent improvements as buildings, siles, drainage, etc., and to carry on cooperative operations as construction of drainage and irrigation systems; to establish farmers' dairies, creameries, elevators, fruit packing houses, cold storage plants, etc.

The farmers have generally employed short-term credit to buy implements, machinery, livestock, feeds, seeds, fertilizers; to hire labor and to meet emergent needs of the family from one season to the next.

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Therefore, the farmer's use of credit will be discussed under the following general heads:

Land purchase and improvement credit, (long-term credit); credit for immediate production and consumption, (Short-term credit) and cooperative credit.

Land Purchase and Improvement Credit (Long-term sredit)

Under this division of Agricultural Credit, we shall discuss the farmer's use of credit to buy land and make permanent improvements. In general this will involve the use of land-mortgage credit. But the reader will appreciate the fact that not infrequently credit secured by a land mortgage is used to pay off accumulated debts, to make payments on land purchased, to make permanent improvements as drainage and buildings, to hire labor, to purchase implements, feeds, seeds, livestock and even to meet family expenses. This being the case, it will be found difficult at times to designate the precise use which farmers have made of their credit. However, the most universal method of using credit for purchasing land and making improvements thereon has been through the land mortgage.

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The Rise of Land Mortgage Use.

In the earlier days of the United States credit for land purchase and permanent improvements was very little in demand, because the land was a free right or at least, it could be had for the asking and fulfilling a very minor obligation to the Government. But with the passing of the free lands of the West and the Northwest and the decrease in the amount of farm lands brought under cultivation from year to year, it became necessary to irrigate the lands that needed irrigation, drain the lands that needed drainage, and improve the waste patches that needed improvement. All this required additional capital. Therefore, the farmer who would meet these conditions was compelled to borrow money. How did he secure the money? In a great many cases it was obtained through a mortgage on the farm as will be brought out later by specific examples. This was not all. for the farmer who desired to increase the size of his farm could no longer get land for a trifle. Land was continually taking on higher exchange value. So the farmer who would receive capital to purchase more land must mortgage what he had. Then there were the young men who grew up, got married and desired to become farmers. How were they to buy land? Well, many have not bought and as a result we have that ever increasing class of farmers known as tenants. Yet many who were ambitious and had the characteristics of thrift have saved up some money and bought land, making a small

^{1.} See Agricultural Development in the United States 1900 to 1910 by Dr. John Lee Coulter. Quarterly Journal of Economics, Vol. XXVII, 1912

payment and giving a mortgage for the rest. This practice as well as tenancy seems to have kept pace with the rising prices of land until now a large percent of the farms in every state in the United States are mortgaged. However, not all the farms mortgaged were executed for the purpose of land purchase or permanent improvement but many are the result of accumulated family debts and expenditures for equipment and working capital.

Amount of Mortgage Credit Employed.

There is very little authoritive information as to what extent mortgage credit was used previous to 1879 but during the eighties some very striking statistical facts are brought out by the work of G. K. Holmes, Carroll D. Wright and others. Also the investigations made by the Bureaus of statistics of the various states and the Government Census throws some light upon the growing use of mortgage oredit.

According to Census Bulletin No. 63 of the Eleventh Census, 9,517,747 mortgages were executed during that decade. The face value of these mortgages amounted to \$12,094,877,793. The amount of these mortgages unsatisfied at 1890 was &6,019,679,985. and G. K. Holmes estimates from the Census figures of 1890 that the total mortgage indebtedness in the United States was in round numbers \$7,100,000,000. Thus showing that over a million dollars of the mortgage debt

contracted previous to 1880 was still unsatisfied. The increase in number of farm mortgages during this period was about 90 percent and the amount of the mortgages increased about 156 per cent. The total number of acres encumbered during this decade was 622,855,091. Still further, as shown by the Census Bulletin "Farms and Homes", 77.38 per cent of the money borrowed on mortgages from 1880 to 190 was for the purpose of purchase and improvement. This plus the amount borrowed for durable property and capital makes a total of approximately 86 per cent of the mortgage credit used during this decade was for purchase or improvement of land or for durable capital used thereon. While it was estimated that 2.83 per cent of the money borrwed on mortgages had been used for farm and family expenses.

During the year 1887 the greatest number of mortgages for any single year were recorded. This was the period when western loan companies found it easy to dispose of western mortgages in the eastern states. However, the mortgage credit at this time was well applied by the farmers.

Of the farm mortgages, 67.05 per cent were for purchase money, 4.85 per cent for improvement, and 5.48 per cent for both objects combined. *

On the whole, these figures indicate that the borrowers were not spendthrifts living in luxury on their credit but were mostly thrifty persons who had bought farms through the use of mortgage credit.

^{*} See Census Bulletin No. 63.

Mortgage Credit in United States. 1890.*

The Eleventh Census shows that 886,957 farms, cultivated by owners, were subject to encumbrance amounting to \$1.085,905,960. Among the states having the greatest amount of encumbrance on farm lands are New York with \$.34,960,703, Iowa with \$101,745,924, Illinois with \$98,940,935, and Kansas, Michigan, Missouri, Ohio, Pennsylvania and Wisconsin with an amount not less than \$50,000,000 nor more than \$75.000.000.

There were four counties having a mortgage encumbrance of over \$6,000,000. They were Monroe County of New York and Berks, Chester and Lancaster Counties of Pennsylvania. The last named county showed an encumbrance of \$8,160,268, and it is the largest tobacco raising county in the United States.

This, in a general way, indicates the distribution of mortgage credit and the fact that the greatest mortgage encumbrance is in the newer and most prosperous agricultural sections indicates the objects for which the credit has been used. For the Eleventh Census, investigations were made as to the objects of mortgage credit, the per cent of the mortgage indebtedness which had been used for each object and the per cent of families incurring the debt for each object. At this point we shall note the results obtained through these investigations.

^{*} See Bulletin 63 of the Eleventh Census.

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Objects for Which the Mortgage Indebtedness Existing at 1890 Had Been Incurred.

For Farms. *

The purchase of real estate uncombined with any other object, induced 60.63 per cent of the farm debtor families to incur 64.38 per cent of the farm debt; real estate improvements uncombined with any other object induced 6.79 per cent of these families to incur 4.53 per cent of this debt; and real estate purchase and improvement in combination induced 3.98 per cent of these families to incur 5.31 per cent of this debt.

The North Atlantic division has the largest percentage of the mortgage indebtedness representing the purchase of real estate uncombined with any other object. For this division, 71.49 per cent of the farm families incurred 74.38 per cent of the mortgage encumbrance to purchase real estate; in the North Central division 58.90 per cent of these families incurred 63.08 per cent of the debt for the purchase of real estate; in the South Atlantic division 53.84 per cent of these families incurred 48.89 per cent of this encumbrance for real estate purchase; and the lowest of all for this object is the Western division where 43.83 per cent of these families incurred 46.32 per cent of the encumbrance.

While the Western division has the lowest percentage for purchase money, it has the highest percentage for real estate improvements. In the Western division 9.86 per cent

^{*} See volume 6 of the Eleventh Census, page 142.

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of the farm debtor families incurred 6.36 per cent of the farm encumbrance for improvements; next for this purpose is the North Atlantic division in which 7.33 per cent of these families incurred 5.20 per cent of this encumbrance; in the North Central division 6.64 per cent of these families incurred 4.09 per cent of this debt for improvement purposes; in the South Atlantic division 6.36 per cent of these families incurred 4.94 per cent of this debt for this object and in the South Central division the percentage for these families is 3.95 and for this object of encumbrance 2.96 per cent.

Business.

As an object of farm encumbrance, business stands for 1.63 per cent of the farm debtor families and 1.95 per cent of the farm encumbrance; in the South Atlantic division 4.13 per cent of these families and 4.73 per cent of this encumbrance; in the Western division 3.56 per cent of these families and 3.84 per cent of this encumbrance; in the South Central division 2.43 percent of these families and 4.84 per cent of this encumbrance; in the North Atlantic division 1.76 per cent of these families and 1.98 per cent of this encumbrance; and in the North Central division 1.32 per cent of these families and 1.49 per cent of this encumbrance.

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Personal Property.

The purchase of machines, domestic animals and other personal property accounts for 2.77 per cent of the farm debtor families and 1.19 per cent of the farm encumbrance; in the Western division 3.41 percent families and 1.77 per cent encumbrance; in the North Central division, families 3.37 per cent and encumbrance 1.53; in South Atlantic division families 1.54 per cent and encumbrance 0.51 of 1 per cent; in the North Atlantic division 1.09 per cent, families and encumbrance 0.35 of 1 per cent; In the South Central division, families 0.92 of 1 per cent and encumbrance 0.60 of 1 per cent. Among the state and territories, the highest percentage for these families is 9.05 for Utah and the highest percentage for this encumbrance is 13.49 for Montana.

Farm and Family Expenses.

The Southern States are the most prominent with respect to farm encumbrance made on account of farm and family expenses. In the South Central division 18.73 per cent of these families incurred 13.35 per cent of this farm debt for these purposes; in the South Atlantic division, families 18.15 per cent and encumbrance 11.39 per cent; in the Western division, families 6.83 and encumbrance 3.13 percent; in North Central division, families 5.19 and encumbrance 3.50; and the lowest of all is the North Atlantic division, families 4.00 percent and encumbrance 1.59 per cent. The total average for the United States is families 5.89 per cent and encumbrance 2.83 per cent.

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Minor Combinations of Objects.

The objects of purchase money, improvements, business and personal property, two or more combined (except the combination of the first two), represent 5.01 per cent of the debtor families and 6.15 per cent of the farm encumbrance. The Western division stands highest among the geographical divisions, being, for these objects 7.14 and 10.48 per cent respectively. The objects of purchase money, improvements, business and personal property, combined with objects other than farm and family expenses, represent 0.84 of 1 per cent of the debtor families and 1.34 per cent of the farm debt. The objects of purchase money, improvements, business and personal property, combined with farm and family expenses, represent 9.83 per cent of these families and 9.52 per cent of the farm encumbrance. All other objects, 'miscellaneous', represent 2.64 per cent of the farm debtor families and 2.80 per cent of the farm debt respectively.

<u>Major Combinations and Apportionment of Minor Combinations.</u>

The securing of real estate purchase money and making improvements when not combined with any other object induced 71.40 percent of the farm debtor families to incur 74.23 per cent of the farm debt; in the North Atlantic division 82.03 and 83.93 per cent; in the North Central division 69.84 and 72.71 per cent; in the South Atlantic division 64.41 and 65.74 per cent; in the Western division 59.90 and 61.54 per cent and in the South Central division 59.31 and 53.99 percent respectively.

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It is believed by the Census authorities that purchase and improvements combined with other objects, for the entire United States, represent 89.43 per cent instead of 74.23 per cent of the farm encumbrance.

The second class of objects, including purchase money, business, improvements, and personal property, not combined with any other object, represents 80.80 per cent of the farm debtor families and 83.51 per cent of the farm encumbrance; for the North Atlantic division, 87.44 and 89.71 per cent; North Central division, 80.49 and 82.77 per cent; Western division 74.01 and 77.63 per cent; South Atlantic division, 71.67 and 74.03 per cent; and the South Central division, the lowest of all, 63.55 per cent of the debtor families and 63.52 per cent of the farm encumbrance. The share of the farm debt due to these objects in combination with other objects, would represent 93.68 per cent of the farm encumbrance in the United States.

It is obvious from this varied combination of objects of farm encumbrance, that mortgage credit has been secured for a number of purposes and cannot be defined as purchase and improvement credit. In corresponding with farmers who have a mortgage on their farms in the states of Michigan, Ohio, West Virginia, Iowa, Illinois and Texas, the writer received a variety of replies. Only about one-third of the farmers answering my letters had mortgaged their farm for one specific purpose. In the cases considered, 92 percent of the mortgages had been incurred for the purchase of real estate. The most

varied reply was received from a farmer at Marion, Ohio.

He stated that his farm was mortgaged three years ago in order to get money to build a silo, to buy an automobile and other farm supplies, to send his son to college, to pay doctor bills and the family store debt.

Owned and Encumbered Farms.

Objects of Encumbrance.*

	No. of Farms.	Amount of Encumbrance.
United States	886,957	\$1,085 ,995, 9 60
Purchase of Real estate	537,723	699,176,464
Real estate improvements	60,228	49,168,733
Purchase and improvements combined	35.316	57,689,492
Business	14,393	21,139,559
other personal property	24,602	12,904,822
Purchase, improvements, business and personal property (two or more combined	44,451 ed)	66,835,107
Purchase, improvements, business and personal property (combined with objects other than farm and family expenses)	7,410	14,591,604
Purchase, improvements, business and personal property (combined with		
farm and family expenses)	87,171	103,413,519
Farm and family expenses	52,257	30,684,018
All other objects	23,406	30,392,642

^{*} Bulletin 63, Eleventh Census.

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Factors Which Contribute to the Use of Mortgage Credit.

Unfortunately, the Census of 1900 did not secure data on farm indebtedness, but the Thirteenth Census collected information regarding the amount of mortgage indebtedness on farms operated by their owners. However, since the Eleventh Census, little effort has been made either by the Government or individual investigations to obtain statistics regarding the farmers' use of credit. The farm mortgage statistics collected by the Government in the 1910 Census shows a total debt of \$2,293,000,000 or an increase of 110 per cent over the farm mortgage debt of smiliar farms in 1890. Although the purpose for which this huge increase in mortgage indebtedness was incurred is indefinitely known, students of economics believe that the panic of 1893 inure to this debt; also the increase of more than 100 per cent in the price of farm lands and improvements plus the frequency of transfer necessarily increased the mortgage encumbrance and the farmers have raised their standard of living almost beyond parallel during the past twenty years. In this period, vast sums have been expended by progressive farmers for buildings and building equipment, farm machinery and implements, labor, rertilizers, etc. From 1900 to 1910, the value of farm buildings increased 77.8 per cent; implements and machinery 68.7 per cent; labor expenditures 82.3 per cent and fertilizers 115 per cent. All this, added to the normal development of agriculture, certainly has exerted a great influence upon the

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increasing mortgage and other farm indebtedness. In general, the part these factors of expense have played in the farmer's use of the instruments of credit, can only be vaguely determined.

Farm Mortgages in Dane County, wisconsin, 1915.

The records on the Register's books at the Court
House show 4,430 mortgages against the farm lands of the county.
Of these 636 are second mortgages and 3,804 mortgages recorded
against separate parcels of land. The amount of land mortgaged
is 390,175 acres, or 53 per cent of the farm lands in the
county.

The average amount or mortgage indebtedness per parcel of land mortgaged is \$4,599.66 or \$44.84 per acre. Most of the mortgages fall between \$1,000 and \$4,500 in size, but some are as low as \$100 and a few as high as \$35,000 and up.

The average rate of interest is shown for 1,890 different cases or about one-half the mortgages. Of these three-rourths are at less than 6 per cent; nearly one in thirteen bears more than 6 per cent and almost one-fourth bear 6 per cent.

Nearly 80 per cent of these mortgages are draw for a period of three to five years, about 10 per cent for ten years and a very few for a longer period.

^{*} Farm Credits in Wisconsin. January, 1915, Bulletin 247.
By B. H. Hibbard and Frank Robotka.

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It was found that residents of Dane County hold
75.4 per cent of these mortgages and 32.5 per cent by residents
of the state outside of the county, leaving 2.1 per cent in the
hands of people outside of the state. Six per cent of the
farm mortgage loans are made by banks, while 8.4 per cent of
such loans are made through them. Less than 4 per cent of
the money in mortgages is furnished by trust, investment and
insurance companies.

The investigators state that it was a very difficult task to learn for what purpose these mortgage loans were made. For Dane County, the bankers reported the purpose of loans in one hundred instances which run as follows:

Purpose of loan.	No. Reporting.
Purchase of farm	81.
Erection of buildings	7
Purchase of live stock	5
Refunding miscellaneous debts	5
Purchasing western lands	2
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The investigators belie these reports to be representative of the mortgage loans in Dane County. Of the 81 mortgages for the purchase of land, many were renewals of such mortgages, some for the purchase of an addition to the farm, but all represent the value of land not yet earnest by the farmer. It should be observed that 93 per cent of the 100 loans were for productive purposes. The others were mostly made to enable the farmer to bridge over the shortage of funds between harvests.

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Rusk and Douglas Counties, Wisconsin.

January 1, 1914, there were 1,101 mortgages on record in Rusk County. These mortgages represent an indebtedness of \$604,990 on 109,180 acres of land. There is a greater tendency, in this part of the state, toward long-term loans. Two-thirds of the loans are for five years or less, perhaps 20 per cent for from 5 to 8 years and a very few for more than 8 years. At the date of this survey, there were 35 mortgages on record in Rusk County for ten or more years. The land companies in this region sell tracts to private persons and allow the purchaser to pay down what he can and give a mortgage for the rest running from 5 to 8 years. Payments are required annually and in many cases, the purchaser is permitted to make payments at will on any interest date. Unfortunately, a great number of these land contracts are not recorded.

On the first period loans in Rusk County, the rate of interest is generally 6 per cent and on the second period loans, it is higher, usually about 7 per cent.

In Douglas county the rate of interest is about six-tenths of one per cent higher than in Rusk County. The other features of the loans are essentially the same in the two counties.

There is little local money in the northern part of the state seeking investment. So money must be brought in from a distance. The fact regarding the obtaining of these loans were obtained for 1,056 loans aggregating \$647,000 in Douglas and adjoining counties. This report is from a

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trust company which makes upwards of 90 per cent of all farm loans in Douglas County and portions of adjoining counties. All these loans were made within the three years previous to the date of this survey. The loans are all small, averaging \$613 each. The average size of the tracts mortgaged is 107 acres valued at \$31.65 per acre. The loan on the average represents 26.6 per cent of the farm value, none exceeding 50 per cent of the value of the land.

cent, 3 at $6\frac{1}{2}$ per cent and the balance at 7 per cent. Of course, one per cent commission is added to this rate and the borrower has to pay the incidental fees. The average rate paid by the borrower, counting everything, is 8.04 per cent. The company secures its money for these loans from people in southern Wisconsin and in Illinois. Notably 66 per cent of the purchasers of these mortgages are farmers. These farm lenders have furnished in the past three years over \$400,000 to the northern and northeastern part of the state. Thus the farmers purchase two-thirds of the mortgages alold by this company and the remaining third is sold to teachers and other professional people.

In Rusk County, the larger part of the money for farm loans comes from Madison, Eau Claire and Sheboygan. The money from Madison comes from a trust company and the larger part of the mortgages are sold to individual lenders. The money from other cities is furnished through banks and loan agencies and is mainly local money.

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The farmer in the northern part of Wisconsin desires credit not only to purchase the land but to develop it as clearing, fencing, improving the land and for the purchase of live stock. From farmers in Rusk and Douglas Counties 225 answers were received to the question "What was the purpose of the loan?" The replies were as follows:

Purpose of Loan*	No. Reporting
Purchase of land in whole or Erecting of buildings or clear Buying live stock	ring land 33
*In many cases more than one a single answer, as "buying	ls" 10 purpose was stated in

However, most all the loans were for productive purposes.

Farm Mortgage Loans in Texas, 1915.

Bulletin No. 355 of the University of Texas, on Cooperation in Agriculture, Marketing and Rural Credits, briefly summarizes forty real estate loans in eight different counties. The total amount of these loans was \$115,521.00 or an average of \$3,888.03 per loan. These loans were granted on an estimated survey of \$244,525,00. The amount loaned was then forty-seven and one-fouth per cent of the estimated value back of it. The average rate of interest was eight and one-fourth per cent and the average time of the loan is twenty-six and three-fourth months. The average value of the property back of each loan was \$6,113.13. The purpose of the loan in five cases was for

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improvements, in five cases for vendor's liens, and in twenty-seven cases to purchase land. The smallest loan was for \$150 and only six loans were more than \$4000.00.

Individual Mortgage Credit.

It is true that farmers are neighborly in the financial straits of their business. Of course, a great deal of the money borrowed by farmers from their well-to-do neighbors is short-time credit or personal credit on a negotiable note, secured or unsecured, running usually for one year or less. But in many instances, as we found in Dane County, Wisconsin, a large part of the borrowing farmers secure some credit and many enough from neighbors through a mortgage to pay for their farm. A prosperous farmer in the community may have a mortgage on his less fortunate neighbor's farm for which the public record shows no account. This is the chief reason why accurate information regarding mortgage credit is so difficult to obtain. This kind of credit has been very successful because the borrower lives in the community and the lender knows him personally and knows the exact purpose for which he is to use the money. In fact, the writer is unable to find a single instance where this form of credit has not been used for productive purposes and it have proven a valuable source of credit for the farmer who has established a good solvent reputation in his community. The subject of short-time neighborly credit will be discussed under the proper head in the next division.

The Farmer's Use of the Chattel Mortgage And Its Development in the Farm Mortgage.

In some localities, the chattel mortgage has become a very important instrument of credit. From all the data that the writer has been able to obtain regarding the use of chattel mortgages in various sections of the country, it is evident that this kind of credit paper is used most in the less developed sections or the region where farming is highly specialized as in the cotton states, tobacco regions of Virginia, Kentucky, Connecticut, Southern Ohio and Lancaster County, Pennsylvania; among the sugar beet growers of Louisiana, Missouri and Michigan; with the citrus fruit growers of California and Florida; and the growers and feeders of live stock in the Middle West. While in the regions of Ohio, Pennsylvania, Indiana, Illinois and Michigan where more diversified farming is practiced, the chattel mortgage has practically passed into oblivian and has been supplanted by the straight mortgage and personal credit. However, the chattel form of credit has been highly developed in the above named industries and is handled widely by merchants, implement dealers, dealers in feeds, fertilizers, live stock and others. It is the instrument of credit used mostly by the tenant and the new settler.

By the survey made in Dane County, Wisconsin, Mr. B. H. Hibbard found only \$3,000 in chattel mortgage loans, while at an auction sale held in Conrath, Rusk County, in the northern part of the state, November, 1913, more than fifty head of cows and heifers were sold, most of which were time sales

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secured by chattel mortgage. Nearly all the sales were made to foreigners unable to speak English. Out of these sales, aggregating \$1,400.00, there was paid in cash \$532 and the remaining \$886 was settled by chattel mortgage. The mortgage covered in most instances, the cattle purchased together with about as many more which the purchaser owned. In a few instances the mortgage was on those purchased only.

Unfortunately, most rural surveys have not taken into consideration the item of chattel mortgages. So little knowledge exists in literature regarding the extent and use of this form of credit.

This form of credit is usually designated as crop liens, cattle loans and short-time or personal credit. These will all be discussed in their proper place under short-time or immediately productive and consumptive credit. The point to be brought out here is that, in many instances, these forms of credit have accumulated until they finally became large enough to warrant a mortgage on the farm and home of the borrower (if he be an owner and if he be a renter, take whatever chattels he had). Cases of this sort have been reported especially in the cotton and tobacco sections as heretofore indicated. Because of repeated bad seasons or other unfortunate and uncontrollable conditions, many farms and homes have been mortgaged and finally foreclosed. When natural consequences frowned upon the debtor and his productive capacity was not sufficient to support him and

his family, new debts were heaped upon the old with added interest and commissions until at last his entire possessions were swollowed up by his gorgeous money lending friend.

In most cases, too, this sort of credit has been secured for productive purposes.

CREDIT FOR IMMEDIATE PRODUCTION AND CONSUMPTION.

(Short-time Credit).

Credits for improvement, equipment and working capital are so closely related and interchangeable in their application by farmers that it is not possible to say dogmatically that either is distinctly a use of shorttime or long-time credit for almost any of the objects of credit have been satisfied by the employment of both sorts of credit as related to time. While the length of time credit is employed has a fairly definite relation to the kind of credit, it will be expected to find them somewhat intermingled, due to the fact that in the past the farmers of the United States have had no organized system for using credit. Farmers have borrowed money on one security for either short or long period and used it for a combination of purposes, productive or unproductive or both. For this reason, we are obliged to treat the subject in the light of the predominating uses of the two sorts of credit.

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Very little use existed for any of the objecte of short-time credit previous to the latter half of the nineteenth century. Ante-dating this period, if a patch of land needed drainage or irrigation, the possessor simply avoided that and cultivated the less objectionable part of his farm. If too much untillable land of this sort was within his claim, he reached out and took in more territory. The same was true with regard to the fertility of the soil. The early tiller left the less fertile spots uncultivated and as the more fertile fields declined in their productive capacity, he ignored them and cultivated the virgin soil. In fact, the use of fertilizers was far more foreign to pioneer farmer than "rural credits" to the modern farmer. As for registered live stock, little desire existed. To the average man, one animal was as good as any other of the same family, weight and color. While better tools and more hired labor might have been used to advantage, obvious reasons obstructed their employment. Very few modern farm implements were then on the market and many of the most serviceable farm tools and machinery of today had not yet been invented. An inventory of the pioneer's and homesteader's farm tools would probably have consisted of a plow, wooden tooth harrow, mattock, ax, mall, wedge, cythe, sickle, a cythe blade corn cutter and a hoe. Most all of these he made for himself with the aid of a jack knife, blacksmith's anvil, hammer and bellis.

With the development of scientific agriculture and the increase in population, the old pioneer farming has rapidly faded away. The old regime has been replaced by new methods, new farmers and new outfits. All these conditions have merged into the new and more magnificent just as the old log cabine that once dotted the land have been renewed by the modern, two story, picturesquely painted farm dwelling. Consequently, in modern farming, capital must be had aside from the investment in the farm itself for land improvement as fences, drains, wells, roads, etc., for the construction and upkeep of buildings, - dwelling, barns, silos, stalls, shafting and building equipment, for farm equipment as teams, harness, wagons, implements, live stock, production, All this may be grouped in a general way as necessary fixed capital. Then there is the circulating capital required to carry on business, to hire labor, to market crops and live stock, to buy seed, feed, fertilizers and other farm supplies. Therefore, the young farmer and many of the older farmers, have been compelled to make use of credit in order to supply themselves with this needed addenda or fail to keep abreast with the drift of agricultural progress. Because of the lack of credit facilities, many have been unable to cope with modern advancement. Then let us investigate to what extent credit has been used by farmers to supply the aforesaid farming accessories.

The Farmer's Use of None-mortgage Bank Credit.

May 27, 1912, the Comptroller of the currency, wrote in reply to an inquiry, that no information with reference to short-time loans made to farmers by national banks had ever been compiled by the comptroller's office. Mr. E. W. Kemmerer, at this date, was unable to find any trace of such investigations by state banking departments. For about a year, Mr. Kemmerer inquired at every opportunity of individual bankers concerning their experience with regard to loans to farmers in different parts of the country. The replies received were so divergent that no conclusion can be drawn except that the practice varies widely in different sections of the country and even in different communities in the same section, and that probably the farmers of the North Central and Western States borrow of commercial banks more than do those of the Eastern and Southern States. Mr. Kemmerer also received replies from representative banks in different parts of the country which are summarized as follows:

Neither of the two national banks in the city of Ithaca, N. Y. makes any appreciable amount of loans to farmers. Both claim to be willing to do so but say there is practically no demand. In some of the neighboring cities, however, such loans by banks are more common. The cashier of a national bank in a town of about 800 population in an agricultural section of northeastern Pennsylvania writes:

Our farmers, as a rule, are not large borrowers and want loans only in small amounts for short periods.

Farmers in general will not go on each other's paper no matter how good the parties are, for they have been so often taken in by wild-cat schemes that they are shy when their names are required to be placed upon paper. They realize also that they are not familiar with business methods in the commercial world and dare not trust themselves.

There is a moderate amount of borrowing by farmers in western New Jersey. Estimates made by bankers in Princeton as to the proportion of farmers in that neighborhood who borrow for short periods of local banks vary from 15 to 40 per cent.

A former president of a national bank in Indianapolis writes:

We come very little in contact with farmers. We made special effort to secure such business by sending to a considerable mailing list of carefully selected farmers circulars and personal letters but the business did not come. My interence was that they dealt with the nearby small banks.

Of the situation in Lafayette, Indiana, a former vicepresident of a national bank writes:

About 50 per cent of our business was with farmers. They borrow frequently from commercial banks, funds to be used for crop planting, crop gathering, purchase of agricultural machinery, improvements on the farm, purchase of cattle and the carrying of cattle or hogs to maturity. Through Indiana

these farmers' loans are very usual in the country banks, many preferring state charters so they may make these loans not only on personal but also on mortgage security.

Farmers are seldom able to give any but personal or mortgage security. A large percentage of them are sufficiently responsible to be entitled to and to receive reasonable credit without security.

readily than do those of other classes..... The reason is,

I think, clear. Each knows pretty much everything about his
neighbor's financial status, the amount and value of his land,
his live stock, and other visible personal property, the amount
of any mortgage and when due. So much being thus in the open,
there is less of the secretive habit so that the extent of the
invisible personal property and debt is apt to be known.

A similar report comes from the national bank in Lincoln, Nebraska, from which the following extracts are taken:

The farmers of this state have need of accomodations of this kind to carry them through the crop season. As a matter of fact, they use short-time credit to fully as great an extent as do the business men in the city and smaller town. In fact, I think it is true that in the smaller towns the bankers favor the farmers in preference to the small business men.

There is no doubt about the average well-to-do farmer in this state being able to furnish satisfactory security aside from mortgaging his farm for such temporary loans within any

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reasonable limitations. In some cases, the banks take chattel mortgages on cattle or other live stock and in some cases, where the farmer has a good equity in his farm, they will not hesitate to take his personal note.

While I do not know that there is any particular difference between farmers and other classes in this state as to their willingness to go security for each other, yet very little of this is done any more. There was a time when it was not an uncommon thing but it has become less and less until now there is very little signing done for others. In fact, the farmers feel that they are able to take care of themselves and do not ask others to sign with them and are able to handle themselves without such an endorsement. This is true of all classes in this state.

I have never felt that in this locality farmers suffered in any way from lack of credit facilities.

A former bank examiner in the state of California, himself a farmer, writes:

The farmers of California do not to any considerable extent, make a practice of borrowing money from local banks or money lenders for short periods.

In reviewing the various bank examiner's reports on some 500 state banks, I recall very few instances of crop mortgages, and it impresses me that in many of the cases the mortgage was taken to obtain additional security for loans previously granted and secured otherwise.

I think it would be safe to say that bankers, as a rule, have not favored short-time unsecured loans to farmers. They are, however, fast awakening to the fact that, as a rule, these are the safest loans a bank can make and are making an effort to get in closer touch with the farmer. It is also safe to say that the average small farmer does not as yet realize that he can obtain such credit at a bank.

Our farmers, as a class, are exceedingly reluctant "to go each other's security". Two-name paper is mostly confined to commercial transactions.

A college professor in the state of Washington informs me that short-time loans to farmers are common in that state but frequently the rate of interest charged is two per cent higher than that on commercial loans, the explanation commonly given being that a farmer borrowing generally reduces the resulting deposit credit more rapidly than does a merchant.

In the Southern States, particularly in the cotton, rice and tobacco sections, the use of crop liens for short-time loans appears to be much greater than in other sections of the country. * Such meager testimony as I have been able to secure seems to show that the amount of short-time agricultural credit extended by banks in the South is relatively small but rather rapidly increasing. The banks are catering more and more to this class of business.

^{*} Cf. Testimony before United States Industrial Commission (Report X), under subject of "Credit System" and "Crop Lien System". passim.

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In many sections, the farmers do not resort to banks for short-time credit but through their local merchant they are using short-time credit in the form of book accounts and crop liens. This has proven to be a very expensive sort of credit. The subject will be fully discussed under the head of store credit.

The Farmer's Use of Non-Mortgage Bank Credit in the Cotton States With Special Reference to Texas.*

On the basis of the material available to the writer,**
it appears that only about 4 per cent of the Texas farm owners
do not borrow from banks, or, in other words, about 95 per cent
do. Nor do these loans come at irregular intervals. The
great majority borrow year after year, are perennials, so to
speak. The most common answer to the question, what per cent
of your borrowers ask for accommodation year after year, was
75 percent; the next most common reply was 90 per cent, or
"nearly all"; only one went below 50 per cent. *** The data
show a rather close correspondence between percentage of
"perennials" and loans to tenants, for tenant farmers are

^{*} Adapted from the survey of farm credit conditions in a cotton state by L. H. Haney, University of Texas. Amer. Econ. Re. Vol. Iv, page 47, 1914.

^{**} This investigation is based upon reports made by farmers and bankers, nearly all in central and eastern Texas.

^{***} Most borrowing was done in the undeveloped sections while the highly developed German and Bohemian localities borrowed little.

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nearly all repeaters.

The one great purpose of most farm loans in Texas is to help "make the crop". The usual items involved in making a crop are labor (chopping and picking cotton), feed, seed, groceries and perhaps mules. Nearly all short-time loans are for this purpose and about 85 per cent of the longer ones.

Other purposes for which Texas farmers borrow from banks for short-periods are; commercial and trading transactions, holding cotton, accommodations to tenants and extensions of preceding loans for the purpose of tiding over the farmer after a bad year or until a late crop is gathered. About 15 per cent of long loans are for investment and improvements, involving such items as land purchase, stock, buildings and machinery.

By comparing a group of the loans over \$1,000 with a group of \$50 loans, it appears that the majority of the former are for "improvements", with purchase of machinery or land next in order, while most of the latter are for making crop, with labor, feed and seed as main items. The latter are alos applied not infrequently to the purchase of mules, plows, and to making improvements. One-eighth of the small loans were clearly for the purpose of consumption.

Taking into consideration all loans upon which this study is based, the average sum borrowed by Texas farmers from banks is a little over \$500. If these loans of unusual size which are made for such purposes as purchasing land and making permanent improvements* are deducted, the average loan is about

^{*} These loans average over \$2,000 and run from \$450 to \$6000.

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\$300. This conclusion is borne out by the estimate of the bankers who report the loans to farmers usually run from \$100 to \$300 and rarely exceeding \$500.

The questionnaire sent to farmers called for the amounts of the largest loan and the smallest loan secured from a bank. The returns show that the average Texas farmer's largest loan is approximately \$1,000 and his smallest loan is about \$100. Of course, these amounts varied greatly, the largest running from \$70 to \$6,000 and the smallest from \$5 to \$2000. Examination of the frequency distribution of the size of the loans shows the most common loan to be \$50 and that 45 per cent of the loans do not exceed \$100.

The returns from farmers show that average time for all loans is seven months (the large loans averaging nine months, the smaller ones four months). The bankers, in their answers, show an average duration for all loans of six months, which is also clearly the mode for their data. If we separate the long-time loans (over six months) from the short-time loans, we find that the average period for long-time loans is nine months while three months is both average and mode for short-time loans. Probably less than 5 per cent of loans to farmers are for over nine months.*

The great majority of the secured bank loans to farmers are made on chattel mortgage security. Perhaps such security is required in about ninety per cent of the cases in which security is demanded at all. Personal endorsement is next

^{*} Farmers generally borrow in the spring (February - April) to pay from the autumn crop.

most common, being the only security given in about 10 per cent of the cases. A chief item in the chattel mortgage security is mules.

Not a few loans are made without security, generally, of course, to substantial land owning farmers. The writer asked the bankers what proportion of their short-time loans are secured. The answer run all the way from 15 per cent up to 100 per cent. From 75 per cent to 90 per cent seems most common. The state banks show a smaller percentage secured than the nationals.

Real estate security is a knotty point for the banker in farming communities. State banks in Texas are allowed to take a certain amount of real estate as security for loans and do so, but, as every one knows, national banks are prohibited by law from doing this until after the passage of the Federal Peserve Act, December 23rd, 1913.

The rate of interest on these Texas short loans varies from 10 to 12 per cent on the larger ones to 13 per cent on the smaller short-time loans, say three months or less.

In as much as 53 per cent of the Texas farmers are tenants, we must consider the non-mortgage bank credit used by the tenant farmer.

To what extent do banks handle tenant loans? In the cotton counties, with but few exceptions, from 25 to 75 per cent of the number of loans made to farmers by Texas banks are

made to tenant farmers. The great majority report 50 per cent or more of loans to tenants. The more common percentages appear to be 50 and 75 per cent. The percentage, of course, refers to number of loans. The amount of loans to tenant would be a much smaller percentage, perhaps 5 per cent. Also, it is to be remembered that the data are mostly from small banks in small towns. The proportion of tenants who borrow from banks varies with the character of the tenants, being greater in counties in which prosperous foreigners are numerous.

(1) The tenant farmer usually borrows simply to provide teams, implements, and supplies for making a crop, supplies for teams and family making the largest item. (2) The average tenant farmer hardly finds it necessary to borrow at any one time more than \$500. In fact, his various separate loans are generally less than \$100, \$50 and \$75 being very common and his aggregate borrowing during the year will run from \$200 to \$600. (3) Tenant farmers' loans are usually made in the winter or spring to be repaid the following fall or winter and so averaging from seven to nine months. (4) As security, tenant farmers generally give a chattel mortgage on teams, stock, implements and crops. Not infrequently they offer the personal security of the landlord or of some friend acceptable to the lender. (5) The statistics already cited concerning interest rates on small loans apply to tenant loans also. Tenants borrow considerable from outside parties. In this case, higher rates of interest are usually exacted.

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Short-Time Farm Loans in Texas. *

The following are remarks on short-time loans to farmers upon evidence gathered in 110 different cases in ten different counties. They cover the years 1912, 1913 and 1914. The total amount of the loan is \$27,779.00 or an average of \$252.54 each. The average rate of interest is 10-4/11 per cent. The average time of the loan is slightly over seven and twofifths months. The smallest loan recorded is \$20.00 and only four are over \$600.00. The interest rates vary from 8 to 15 per cent. The prevailing rate is 10 per cent. As to time of loans, there are two payable on demand and the others vary from one to twelve months. The nature of the security given for these loans is interesting. Under the leading chattel mortgage or lien against crop, stock or cotton, are seventy-five loans. Personal security is given in eighteen cases. Note and endorsement, which is the same thing, perhaps, as personal, is mentioned in four cases. Vendors! Lien is mentioned in two cases and an open account in one. In ten cases, no security was required. The purpose for which the loans were made are Supplies, expenses and to make crop are given worthy of note. in 71 cases; to pay off old debts, five cases; cattle and feed together, seven cases; teams, payment on land, to make improvement and machinery, two each; while in nineteen cases, the purpose of the loan is not given.

^{*} Adapted from Texas University Bulletin No. 355, on Cooperation in Agriculture, Marketing and Eural Credits by Charles B. Austin and G. S. Wherwein, Division of Public Welfare, Department of Extension, 1914, pp. 76-77.

We have compiled another table of twenty-five loans on short time to renters only. The total amount of the twenty-five loans is \$4,949.75, or an average of \$197.59 each. The average rate of interest is ten and one-seventh per cent. The average time for which the loans run is seven and nine-tenths months. In three cases, personal security is given; in two cases the landlord has given his name; in two cases no security is given; and in eighteen cases the loan is secured by chattel mortgage. In two cases, the loan was used to pay a debt; in one case, to buy feed; in four cases, the purpose is not given; and in eighteen cases the loan was for the purpose of buying supplies or making the crop. Less than one-fourth of the loans amount to less than \$250.00 each.

THE USE OF CATTLE LOANS

The practice of using cattle as a chattel for security dates back to the early history of the cattle industry in the United States. Bankers and dealers in livestock have generally been skeptical of this sort of security until recent years.

A few cattle loan companies now in existence find that their first transactions of this nature began as early as 1850, although the real business of cattle loans appeared about fifteen to twenty years ago. The idea was first originated and promulgated by cattle brokers, commission men and dealers in the stock yards and at shipping points. There being a daily

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demand for all meat products, these men who handled cattle
in a wholesale fashion and on a commission basis knew that the
security of "cattle paper" could be turned into cash any day.

Sp dealers in cattle at Omaha, Kansas City, Chicago, St. Louis,
Portland, Fort Worth, Sioux City, El Paso and other livestock
markets discovered that this variety of security was perfectly
safe. Interest in the business grew as the cattle ranches
were gradually placed under fence; definite cattle boundaries
were established and the demand and market prices of beef and
dairy products were augmented.

W. P. Dickery, former cashier of the Livestock National Bank, Sioux City, Iowa, and now President and Manager of the Portland Cattle Loan Company, North Portland, Oregon, where he states in 1915 in the Bankers' Magazine that they had been in business three and one-half years and had loaned in the aggregate \$20,000,000 with a total loss of less than \$600.

These loans on cattle are made to farmers for four distinct purposes which may be classified as follows:

- 1. Feeders loans.
- 2. Stockers loans.
- 3. Dairy loans.
- 4. Summer grazing loans.

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Feeders Loans.

These are loans made to farmers for the purpose of purchasing cattle to feed through the winter. This is done when the farmer has the feed free from all encumbrance. Often the cattle are bought and advanced by the company to the farmer for winter feeding on share profits. Clay, Robinson and Company, Chicago, have found this a very profitable business in Michigan. Associate banks that operate in the same manner as the Clay, Robinson and Company are located at Chicago, Illinois; South Omaha, Nebraska; Kansas City, Missouri; South St. Joseph, Missouri; Sioux City, Iowa; Denver, Colorado, South St. Paul, Minnesota; East Buffalo, New York, East St. Louis, Illinois; Fort Worth, Texas and El Paso, Texas.

Feeders loans are probably used most widely in the states of Arkansas, Nebraska, Missouri, Texas, Oklahoma, Iowa, Illinois, Oregon, Michigan, Minnesota and Wisconsin. As heretofore stated, the cattle ranches throughout the West are breaking up and being placed under fence due to the advancement of settlers. This has remarkably reduced the pasturage area and caused great changes in the industry of growing market cattle. The methods now in vogue in the cattle feeding districts of Nebraska are typical of the changes which are taking place throughout the cattle growing territory.

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In Nebraska farmers raise great quantities of corn and alfalfa. They breed and raise as many beef cattle as the pastures permit but the bulk of the business consists of buying feeders - steers one to three years old, inclosing them in a large yard and feeding them freely with the corn, alfalfa, fodder and other forage grown by the farmers themselves. By producing all the grain and roughage consumed by the feeders, the farmers who make a business of financing cattle for market, earn double profits on their crops and on their livestock plus the manure which they have left as a fertilizer to produce further crops. In the states aforenamed, feeders methods are being employed similar to those described in Nebraska. Livestock to the extent of millions of dollars worth are annually advanced to farmers for this business. At Kansas City alone, which is the leading cattle loan market of America, from 200 to 225 millions of dollars are loaned annually on cattle. The writer is unable to obtain any exact report for all markets and loan companies engaged in this business, but the figures for such loans have been vastly increased in all parts of the country since the passage of the Federal Reserve Act, December 23, 1913, permitting national banks and state banks which are members of the Federal Reserve System to rediscount cattle paper.

Stockers Loans.

Stockers loans are made to farmers to buy heifers, cows, bulls and steers. Loans on cattle purchased for breeding purposes as heifers, cows and bulls are made generally with restrictions to registered stock or very high class grades. Stockers loans are also made on calves and steers to be held and fed to maturity. These loans are usually made on six months time with the privilege of one to three renewals and sometimes a longer term.

Dairy Loans.

Dairy loans are made for the purchase of high grade cows and pure-bred sires with the express object of improving the dairy business. A good example of the purchase of high grade cows and pure-bred bulls on credit is to be found in the Marinette County Advancement Association, Wisconsin.

This is really a cooperative propagands. It is the outgrowth of an effort by the business men of the county and the efforts of D. S. Bullock, then connected with the Marinette County Agricultural School, to assist those farmers who are honest and industrious but have no funds and desire to get into the dairy business.

Any farmer in the county who wishes to get dairy cattle and does not have the money to pay for them, can fill out an application blank for payment on time and send it to the secretary of the trustees of the association. The trustees

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then carefully investigate the merits of all applications. If they find an applicant is prepared to care properly for the stock and is a safe risk, the application is accepted. When enough applications have been accepted for a car-load of stock, the purchase is made. Professor F. H. Scribner of the University of Wisconsin assists in picking out the cattle and passes on their quality and value. However, when a man sends in an application, he names the breed he wants and the price he desires to pay, together with a statement of his resources and liabilities. Then he must take the stock bought for him according to the terms of his application. Upon receipt of the stock, the buyer gives a note in payment which is secured by a chattel mortgage. The note is payable to the trustees and may be paid off by monthly installments at any bank in mthe country.

During the three years previous to 1916, for which time this plan had been in operation, more than \$20,000 worth of pure bred Holsteins and Guernseys were purchased through the association on borrowed money.

A very similar plan to the one just described in Wisconsin has been in operation for many years in central and southern Illinois and is now operating in six or seven counties in Michigan. The work was begun by W. Scott Matthews, State Food Commissioner of Illinois. In 1916, at a meeting of the bankers, business men, feed merchants and representatives of the dairy interests, a fund of \$25,000 was subscribed for

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the purpose of feaching the farmers the proper use of this instrument of credit and to facilitate the dairy business in Illinois.

Summer Grazing Loans.

Summer loans are loans made on cattle to be grazed during the summer months. This is the least important of the four sorts of cattle loans except in the thinly settled and range districts. In fact, this type of loan, with few exceptions, has been found a paying business only in the range territory where large pasturage areas are available. In late years, as the ranches have been put under fence and their areas have become more definite and restricted, the cattle grazers have had less difficulty to obtain finance on grazing cattle as security. In the regions where the ranches have been mostly broken up and large crops of forage and grain produced, grazing cattle has been found much less profitable than pen-feeding cattle. So the latter is the chief practice in the more highly developed farming sections. A good example is to be found in Michigan. Clay, Robinson and Company have tried both the methods of financing winter feeders and summer grazing cattle in Michigan. They have found the winter feeding of livestock in this state to be a very profitable business when the farmer has grown the grain and forage. On the other hand, they found the practice

of buying cattle in the spring and grazing them through the summer was not profitable. Similar reports have been obtained from cattle loan companies regarding various parts of the country. Therefore, the practice of grazing cattle through the summer is falling into disrepute by the loan companies and experienced farmers in the more intensive farming sections.

Security of Cattle Paper.

The safety of a scrupulous, well defined cattle loan is beyong doubt par excellence. First of all, there is the chattel mortgage on the livestock, more than enough to liquidate the debt and can readily be turned into cash at any livestock market in the country on any day. Then there is the financial and moral responsibility of the stockman, farmer or rancher back of the business. Behind these obligations is the endorsement of the cattle loan company or "cattle bank" as they are sometimes called, which does a large volume of business and handles millions of dollars worth of market cattle annually. Finally, the paper is secured by the guarantee of the local banker who usually knows the circumstances and character of the local cattle growers. The guarantee of a banker to a security that is not absolutely safe is rare. With all this acknowledgement the "cattle mortgage" is destined to be one of the very desirable forms of commercial paper in the near future.

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Desirability of Cattle Paper.

At the Kansas Livestock Association meeting held at Wichita, Kansas, in 1916, Beverly D. Harris, Vice-president of the National City Bank of New York City, said in paid, that the desirability of cattle paper is based on the following considerations:

- 1. The financial responsibility and strength of connections, supporting the institution selling the paper and the ability, experience and integrity and safe policies of the individuals concerned in its management. The knowledge that they make careful and thorough inspections and look closely after the security throughout the life of the loan.
- 2. The character and responsibility, financial and moral of the borrower. In the cattle business, as in every other, integrity and the morla risk are the first considerations. To quote from Mr. Hollings of the Inter-State National Kansas City, "The brand on the man is more important than the brand on the cattle".
- 3. The character of the security, amount and margin, location, arrangements for feed, water and handling; transportation facilities; protection from weather and diseases.
- 4. Liquidity. Loans which will be naturally liquid within a short time by movement of the cattle to market, grown steers in the feed lot are preferred. Stocker loans are often times very safe and desirable, but this class of paper as a rule is slower in liquidating.

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- 5. Loans on range cattle, calves and young stock are usually subject to more hazards than other loans. All conditions surrounding loans of this character should be looked into very carefully with regard to safety.
- 6. The cattle mortgage law of different states varies very materially in their provisions. They should be studied carefully and thoroughly understood. The original or certified copy of the mortgage should accompany the loan, showing filing, and that all legal requirements have been complied with.
- should have distinctive brands and the location clearly recorded in the mortgages by which the cattle can, at any time, be identified immediately. The cattle should be in pastures enclosed with fences and the mortgage should cover all cattle of any certain brand or be a blanket mortgage covering all cattle of all brands belonging to the borrower. It is very unsafe to have mortgages held by different lenders on cattle of the same brand, running in the same pastures.
- 8. Many purchasers will not buy split loans. This is a matter requiring expert knowledge and judgment of conditions as under some circumstances serious complications may arise.
- 9. Renewals should be taken with careful attention to the laws of various states and with a full understanding of the circumstances warranting the renewal and that the security is not being impaired or dissipated.
- 10. Loans on equities or undivided interests are undesirable.

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Cotton Credit.

It is not only in Texas that "cotton credit" is extensively employed. All the "cotton states" are seriously affected by this would-be beneficial practice. However, in Texas there is a greater use of bank credit for the growing of cotton crop than in any other state. As a result, the greater part of the crop liens on growing cotton in the states other than Texas are held by merchants, tradesmen and landlords. These are the most expensive sources of credit too. Mr. G. K. Holmes of the United States Bureau of Census in 1900 estimated that southern planters paid from 20 to 40 per cent interest on the capital secured for the production of crops.

The cotton crop-lien is generally brought about in the following manner: The farmer (land owner or tenant, white or colored) desires to grow the crop. In order to do this he must have tools, seeds, man and animal labor. Also he often needs food supplies and clothing for his family to carry them over from a poor season to a better one. The merchant, landlord or tradesman views his situation. If he concludes the farmer a safe risk, he furnishes him the needed equipment and supplies and takes a mortgage on his crop and anything else the victim may have in his possession. The debt is due and must be paid as soon as the crop is harvested. The lender gets the crop at the lowest price and if he is merchant he sells at the highest price. In case of a bad season, the borrower may be

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unable to meet his obligation and thus swept out of business or his debt may be so augmented that he will remain in debt for several years to come. This is the condition through the cotton states as heretofore indicated. There has been no definite surveys in any one district or locality, except the ones referred to in Texas. It is such an old and common practice that everyone seems to know about it and the information is so general that specific treatment of the conditions are hardly possible. Further, the practice is so historic and so wide spread that a survey and exhibition of the actual conditions would be too volumnous for a place in this work. Some very specific references are treated under the head of "Crop Liens", "Cotton Credit in Texas", "Store Credit", etc.

Tobacco Credit.

This is another use of the crop-lien. Credit has long been used by the tenant and farm owner for the making of the tobacco crop. The credit is advanced to the grower by the merchant, landlord or tradesman in the same manner as that described for the production of the cotton crop. This type of credit is extensively employed in the tobacco growing regions of Kentucky, Virginia, Tennessee, Ohio, West Virginia, Pennsylvania, Connecticut, and Wisconsin.

Like the crop-lien system in the cotton states, this practice is so historic and well known that little has been said in history and agricultural literature regarding its use. The

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best discussion as well as the best contribution to literature on this topic is to be found in the survey made by Professor H. E. Esswein* of the Ohio Agricultural College. Mr. Esswein reports, in his rural life survey of the state in 1913, conditions in the white burley tobacco district as follows: *Tobacco growing is partly in the hands of tenant farmers who remain on one farm for short periods of time in many cases for only a year or for two at the most. So numerous are tenants in some sections that well informed persons say that 90 per cent of the tobacco grown by tenant farmers, usually on the shares, one-half of the crop or one-half of the proceeds of the sales goes to each party. The landlord furnishes his tenant a house, a garden or truck patch, horses or mules, and a few farm implements. Owing to the fact that tobacco is a crop from which one cannot hope to get returns for at least a year from sowing the seed, a system of advancing money to tenant growers has sprung up. The system is as follows: After putting out his tobacco, the grower will come to the storekeeper usually and tell him that he would like to get an advance on his crops. The storekeeper finds out how much tobacco he has out and determines what would be a safe loan on the crop. grower then gives his note at 8 per cent interest on the crop. The amount of the note is dealt out at the store by the grower and his family as their needs require. The storekeeper holds the note until the crop is sold or else has it discounted at the bank for 6 per cent, thus enabling him to make 2 per cent on the deal.

^{*} Annals of American Academy, Vol. 50, pp. 186-9, 1913.

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"Occasionally some man will take advantage of the one who has advanced him money. After having obtained an advance and having dealt out the greater part of it, he will leave the locality. The creditor, in order to get his money out of the transaction, must hire someone to cultivate the crop for the remainder of the season and harvest it.

"The loss from bad debts usually resulting from a bad crop or low prices also is very considerable. One merchant in an Ohio River Town showed the writer twenty notes, ranging in amount from \$15 to \$250, totaling close to \$2,000 against persons to whom his firm had advanced money on their tobacco crop. On some he never expected to realize a cent and on others, only after a long wait, or until another crop is grown or else by legal process. He offered to sell the whole lot for fifty cents on the dollar.

factory. It keeps him without money of his own for the greatest part of the year. His family and himself are denied the things they ought to have oftentimes when they most need them. Suddenly he comes into possession of money, or at least power to purchase. The tendency now is for him and his family to buy more things than they need. Merchants say that they have to be very watchful along this line, so apt are these people to buy unnecessary articles. People who follow this custom seldom get anything ahead. Hardly ever do they get land of their own.

The value of their crop is lived up before it is grown and each succeeding year finds them just where they were before. In some cases, doubtless, they are obliged to pay higher prices for goods than if they had the cash, though, as a usual thing, merchants claim to sell on credit the same as for cash. A great number of growers look upon the system as quite the proper thing and it is a current saying in the region that the tobacco crop will not grow well unless it is mortgaged.

...... The greatest need in the tobacco sections, next to getting the land in the hands of those who will cultivate it, is to provide some substitute for the ruinous practice of advancing money on the growing crop alike disastrous to the lender and to the borrower.

Credit on the Sugar Beet.

The growing of sugar beets, like cotton and tobacco, is largely financed by the advancing system, especially the part of the business which is carried on by the less well-to-do farmers. This practice is followed in the best growing areas of Louisiana, Mississippi, Missouri, Michigan and other states. The necessary addenda is advanced to the grower by the merchant, landlord or tradesman or factory. Then when the crop is harvested, it is at once marketed to the one who has financed its production at the lowest price. As a result, the beet growers are little better off than the cotton growers.

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Credit on the Citrus Fruit Groves.

The writer has been informed that the advancing system is used extensively in the production of citrus fruits in California and Florida but no definite information has yet been made available escept the use of cooperative credit in irrigating the growers.

This form of advancing credit is also practiced in the production of cantaloupes, tomatoes, and other perishables grown on a large scale.

CROP LIENS AND STORE CREDIT.

We shall first consider crop liens in general. Then we shall make special studies of crop liens in the "cotton states", tobacco growing sections, sugar beet areas, citrus groves and general store credit. There are several local reports setting forth the use of crop liens and store credit. Most of these, however, are for special types of farming. Probably the most comprehensive view of this sort of credit is to be found in the reports from the cotton states. *

The states implied by the group "cotton states" are: Texas, Oklahoma, Louisiana, Mississippi, Alabama, Georgia, North Carolina and South Carolina.

^{*} Industrial Commission Report, Vol. X, p. CVI, 1901.

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Origin and Results of Crop Liens in the South By G. K. Holmes.

"It is a general custom of the cotton planters and their tenants to use their credit with the neighboring merchants to obtain their plantation and family supplies in advance of the maturing of the crop, often even before the seed is planted. The farmer estimates about how much credit he wants and the merchant tells him to produce about so many acres of cotton, allowing a good margin against a possible crop failure. This system permits the planter and his tenants to live in the future and to be improvident and hopeless. It is a direct cause of the enormous production of cotton with a constant tendency toward over production and with a low price of the cotton. The cotton men are beginning to realize that they are the victims of a bad system. The store system of the South amounts to a sort of peonage with the cotton planter. The rate of interest on the liens of cotton crops averages at least 40 per cent a year and the planters are at least a year behind."

A great part of the cotton crop is grown by tenants, small farmers and colored folks who are advanced credit by the country merchant, landlord, a local cotton buyer or some well-to-do farmer. This credit is often used for a variety of purposes. Among the objects of credit advanced the cotton grower are, to buy tools, seeds, mules, wagons and general farm supplies; to pay rent; to keep the family in food and clothing.

Thus the size of a planter's crop may be determined by the amount of credit he can secure. If the crop fails, the planter is forever afterwards beholding to his debtor. Cotton is used here as an example because it is the chief money crop of the South but the majority of the crops grown in the South, on a commercial scale, are financed by the crop lien method.

The Merchant's Risk.

Mr. Lovejoy, himself a merchant, believes that the excessive rates are one cause of the depressed agriculture in the South but justifies them in part by the high risks which are taken by merchants and money lenders. The merchant, in making advances of goods to the planters and especially to laborers and negroes, adjusts the price of the goods to the credit of the individual. If a man is practically certain to pay, goods will be sold at perhaps 10 per cent advance of the cost; if the risk is high, the advance will be 25 per cent or more. The purchasers understand that these distinctions are made and the reason for them. Corn bought at 53 cents is sold for 60 cents for cash and 75 cents on time, while bacon costing about 5.4 is sold for 6 cents in cash or for $7\frac{1}{2}$ to 10 cents on credit.

The merchant takes a lien on the crop for his advances, and of course, runs considerable risk since the crop may not turn out satisfactorily. The entire system which has been in existence thirty years or more, is bad for the merchants as well

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as for the planters. Merchants are not prosperous when the farmers are not because they lose so much on their advances. Farmers do not borrow much money on crops and chattel security from banks but chiefly from merchants who themselves obtain loans from the banks.

Store Credit and the Tenant Farmer. *

A majority of the tenant farmers find in the country merchant their chief source of credit and store credit and crop mortgage arrangements form a dark place in the Texas farm credit system. Virtually all negro tenants and seventy-five to ninety percent of the white tenents, foreigners and best black-land tenants excepted, regularily depend upon the advances of credit from the local store keeper for food, clothing and various supplies and give mortgages on their crops as security. Probably less than 10 percent of farm owners are accommodated in this way and the percentage of white tenants seems to be on the decrease in most sections. The nominal interest rate is always 10 per cent.

The system usually works as follows: At the end of the year those who have secured advances on crop mortgages have little or nothing left. One of them will go to his merchant about February 1st and ask for credit until he can make a crop in the fall. The merchant will agree to extend a certain amount of credit in turn for a mortgage on the prospective crops of the tenant and any other property which he may own, which is often nothing. Frequently, the acreage in cotton

which is often nothing. Frequently, the acreage in cotton *Adapted from the American Economic Review. Farm Credit in a Cotton State by L.H.Haney, March, 1914, p. 51,52,53.

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is considered, and whites may be allowed about \$5.00 and negroes about \$3.50 to \$4.00 the acre. Generally, however, the amount is not formally figured in this way but a maximum allowance per month is set, being about \$30 for the whites and somewhat less for the negroes. The amount varies with the community and may run up to from \$60 to \$75 per month in a German community and as low a limit as \$15 may be set. It depends on the character of the tenant and the number of his teams. The aggregate amount for the season then is the product of the monthly allowance and the number of months, say nine months. The character of the security is indicated by the crop mortgage form which accompanies the farmers' note.

The crop mortgage system is satisfactory to no one but the dishonest storekeeper, not all storekeepers are dishonest. The interest is nearly always deducted in advance and it is almost universally complained that the borrower is over charged for his goods. If the farmer borrows \$300 he gets only \$275 in cash and is given the worst bacon and flour at the price of the best. Once the mortgage is given, the tenant becomes the storekeeper's man for he must depend on credit and all his credit is pledged. He or his trade, at least, is regarded as the possession of the merchant who holds the mortgage on his crop. Then, at the end of the season, he is not infrequently compelled to sell his cotton to the storekeeper and as a result, often fails to get its full value. (This statement applies in general to the more ignorant classes. In general the storekeeper offers a slight advance over the market price of cotton as a

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premium to induce the farmer to sell to him, his object being that by securing the farmer's cotton business, he can secure payment of the mortgage obligation out of the price of the cotton). The same is true of the farmer's other market produce such as chickens, butter and eggs. The total interest paid under such circumstances averages at least 20 per cent. On the other hand, the tenant is often a shiftless and unreliable person and the percentage of bad debts is high.

Not infrequently the merchant has to carry the farmer over for another year because of crop failure. In this way, a big sum of debt accumulates and in order to cut a long debt short, the tenant "pulls up" and leaves the country.

The tenant is compelled to get his credit of the merchant and not of the banker because the bank refuses to make long loans; the tenant wants credit the whole year and no one but the storekeeper can do this. The bank will not make such small loans as the tenant wants; the tenant cannot furnish the security required by the bank. Banks also do not care for and generally will not take crop mortgage security and this sort of credit business used by the tenant requires close supervision and more intimate knowledge than the banker can hope to have of his customer's daily duties.

Hence the country merchant acts as the banker's agent in making crop mortgage loans. From five to twenty per cent of the loans of many Texas banks are made to country merchants such loans being "largely" or "almost entirely" used to carry

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. 1 farmers on crop mortgage security. The merchant in turn endorses and turns over to the bank the farmer's note and crop mortgage as security.

About two-thirds of the sales made by hardware and implement dealers to Texas cotton farmers are on time to be paid out of the cotton crop in the fall.

The Landlord as a Source of Credit.*

It is probable that in most parts of central Texas over 90 percent of those tenants who owe the store are also indebted to their landlords for larger or smaller advances. Storekeepers, as such, only give credit on food, supplies, implements, etc., whereas cash or its equivalent is often needed for mules, feed and other current expenses. landlord is practically always involved in supplying this cash. He may make small cash advances in a bad season and he often sells his tenants teams and feed to be paid for out of the crop but for larger cash advances, the practice is not uniform. In the bottom of the Brazos and Colorado, and in a few places in the "Black land belt", there are large "plantations whose owners prefer, as a rule, to accommodate their own tenants rather than to stand for them with the bank or other lenders. This gives them greater control over their tenents and unscrupulous landlords may make larger profits

^{*} Adapted from "Farm Credit Conditions in a Cotton State" by Lewis H. Haney. American Economic Review. March, 1914, p. 54-5.

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by charging high rates. To carry their tenants, they may borrow several thousand dollars from a bank each year.

Such landlords often make a business of running a sort of a commissary.

On the other hand, the owners of medium and small farms in the Black land belt and sandy regions to the East do not lend any considerable amount of cash to their tenants though they sometimes help them to borrow elsewhere. On the whole, they would rather the tenant would get his money in his own way.

Oredit on Farm Implements.

Very little more than a half century ago farm implements were of a very simple sort and comparatively inexpensive. With the improvement of farm implements and machinery and the invention of new labor saving devices, the problem of farm tools and working equipment has become more complicated and expensive. As a result of this progress, tarmers must supply themselves with the best tools, machinery and labor saving devices in order to keep up with the economic advancement of farm labor. Therefore, many have been compelled to employ the instruments of credit in the purchase of farm supplies.

The use of credit by farmers in buying farm implements and machinery has been employed extensively in recent years by all classes of farmers and sellers and manufacturers of farm tools and machinery. Most all dealers from the local

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merchant and the hardware store to the International Harvester Company have advanced the farmers tools and machinery on credit, and farmers of all ranks have bought the necessary farm implements and machinery on credit. If you would examine the books of the various dealers in and manufacturers of farm supplies, you would find that farmers are credited with every sort of instrument from a pitch fork and a hoe to a twine binder and a bull tractor.

The best available example of credit advanced to farmers on farm tools and machinery is the International Harvester Company. According to the annual report of this company for 1915 (page 13), they had outstanding loans to farmers amounting to \$44,000. Since the reputation and business methods of this company are well known, without any further comment, this speaks well for boththe company and the American farmer. Further information regarding loans on farm implements and machinery is brought out in the discussion of chattel mortgages, store credit, short-time credit in Texas and credit in cotton states.

The Farmer's General Store Credit.

The dependence of the farmer upon the merchant in the South has been indicated. The situation is no doubt more serious in the South than any other part of the country but this form of credit is prevalent throughout the rural districts. All farmers must have food supplies, clothing, seed and implements. Many of the farmers are poor and when they are

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compelled to buy these articles, must have credit until they can produce a crop to pay for them. The merchant then sets his charge high enough to cover all possible losses and most anyone else would do the same. It is a business proposition but often extortion prices are charged just because the farmer is ignorant and the merchant has him in his clutches and "can put it over". The farmer usually employs the merchant's credit for the purchase of the necessities of life or the instruments of production. Many instances may be found in all parts of the country where this very sort of credit has been so prolonged and the store debt has so accumulated that innumerable farmers, many of whom were once prosperous, have been so swallowed up in debt to the country merchant that they were finally deprived of a home. These facts are so generally known that little has been said in the literature and investigations of oredit about them.

The Farmer's Use of Cooperative Credit.

The writer realizes that this topic is likely to be misapprehended by the layman. The subject of cooperation has been discussed and re-discussed both pro and con by the most able and most humble organizers, not only in this country but throughout the world. Various phases of the subject have been treated elaborately. Therefore, the scope of the farmer's use of cooperative credit is volumnous and a great

part of the information is commonplace and somewhat generally understood by everyone who has "dipped" into the subject of cooperation. Yet there has never been an investigation of the farmers' cooperative use of finance in this country. Most information upon the subject has been vaguely scanned in connection with the general subject of cooperation or the description of some specific organization. Consequently, it is not the aim of this work to present the theories of cooperation; the principles and benefits of farmers' cooperative organizations; the problem of financing such organizations or any phase of the general subject of cooperation but to set forth a few of the principal types of farmers' cooperative organizations, give one or more living examples of each and relate very briefly in each case how the organization has used its credit for the mutual benefit of its members.

Cooperative Producers.

There are many varieties of productive cooperative organizations. Among the most familiar organizations are the the cooperative cattle breeding associations of Wisconsin, Minnesota and Maine; Cooperative hore breeding in the Central West; Cooperative crop improvement associations; (Corn breeding associations in Illinois, Ohio, Indiana, Iowa, Kansas, Connecticut, Delaware, Maryland, Montana, Minnesota, Nebraska, Oklahoma, Texas and Wisconsin).

A cooperative livestock breeding association makes a business of buying registered stock for the members of the

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association as needed. Not infrequently a man desires to go into the livestock business and finds it too expensive to start on a cash basis so the association, having more prestige and responsibility than an individual, is trusted with the property. Then the separate individuals who receive the livestock pay the secretary-treasurer of the association in installments or in full at some stated time in the contract. The secretary-treasurer in turn settles the original note for the livestock. Thus the association enables its members to secure credit which they, as individuals, could not get.

The incidental expenses of the association, the hiring of managers, assistants and expert advice and other similar needs are met by assessing the members in proportion to the benefits derived or by a regular assessment upon each member or as often the case in the crop improvement association, by cooperative "tips" from those interested.

The writer realizes that cooperative dairying and marketing associations are productive organizations and will allot them due space under their respective titles.

Cooperative Dairying.

Many examples of cooperative dairying might be cited but since our discussion must be brief, I shall name only a few of the most noted organizations and illustrate their use of credit by one specific example. Among the most prominent dairy associations are the Minnesota, Wisconsin, Michigan and Illinois cooperative dairies.

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One of the best living examples is the Ashland Dairy Plan of Wisconsin. This plan is almost too familiar to the average student of cooperation to require explanation. Briefly, the Ashland Dairy Plan is an example of the bankers and business men offering their aid to the farmers in the establishment of a practical and working scheme of rural credits. Several bankers have united to lend money to farmers on a safe basis for the purchase of dairy animals. Then the business men's associations of the several districts guarantee the farmers' notes while the dairymen pledge themselves to pay each month on the loan one-half the amount of his milk check. Each farmer also contracts to raise all his heifer calves. The Animal Husbandry Department of the University of Wisconsin assists in selecting the cattle. Many car loads of dairy cattle have been bought in the Ashland, Iron River, Millen and other districts of Wisconsin by this plan. The expense of purchase and delivery is prorated accordingly and added to the cost price of each animal.

This plan has been so successful that it has spread into many counties of Wisconsin, 30 counties of Minnesota, 7 counties of Michigan, most all of central and southern Illinois and several counties of California and New York.

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Cooperative Irrigation.

Irrigation projects unlike drainage projects, are largely carried on as cooperative, partnership and commercial enterprises. According to the Thirteenth Census, the total irrigated area in the United States was 13,739,499 acres. Of this number of acres, 6,258,401 was irrigated as individual and partnership enterprises; 4,646,039 acres under cooperative enterprises. Thus showing that more than one-third of the irrigated land in the United States was done cooperatively.

The irrigation of land had its origin among the Morman Colonies of Utah. From this is spread to Wyoming, California, Nevada, Colorado, Arizona and Montana.

The project is usually organized on the joint stock plan with so much capital stock. This is usually sold to members for so much labor. One share of stock has one vote. Then the members are assessed a definite tax each year to keep the project in operation. The stock, of course, is all owned by persons to be served by water rights. However, funds have been raised by subscribing capital, by direct assessment of the capital stock, by small loans and by bonds. In some cases, settlers have cooperated in building works by their own labor. Some of the best examples of cooperative irrigation are to be found in the citrus groves of California.

"Under some of the mutual companies in the fruit districts, it was originally intended to have one share of stock with par value of \$100 for each acre to be irrigated. As a rule

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a share represented the equivalent of one-tenth miner's inch
of water flowing continuously, although this varied to some
extent. Sometimes there were ten shares per acre, with par
value of \$10, so the valuation per acre and per miner's inch
was about the same. Experience proved that one miner's inch
was hardly sufficient for ten acres of mature citrus orchards,
but it was enough for seven or eight acres. Extra shares
in water companies were purchased by orchardists to prove the
addition water needed for full grown trees so that the par value
of an acre water right, based on present use, is about \$125.
Under other companies, one miner's inch served only five
acres from the start. The market value of shares is influenced
by supply, demand and various local conditions as well as the
original cost and acre rights are now valued at from \$100 to
\$300 for citrus fruits."

Many of these companies exist in California. They are all incorporated under the state corporation laws. Three or more persons may form a corporation to do business as private companies. The running expenses of these companies are usually defrayed by charging for service or by taxing the stock. These mutual water companies have proved successful. One large mutual company in the citrus belt irrigates about 20,000 acres. The largest mutual company in the United States is in the Imperial Valley and irrigates 100,000 acres. A large part of this is a trucking region. Therefore, the uses of credit in carrying out irrigation projects have proven to be a grand cooperative success.

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