THE FARMER'S USE OF CREDIT.

Thesis for Degree of M. S.

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THE FARNER'S USE OF CREDIT.
Page
Introduction ..... 1
Clas aification of the farmer'a oredit ..... 2
Land purchase and improvement oredit (long-term or mortgage oredit) ..... 3
The rise of land mortgage use ..... 4
Amount of Nortgage oredit employed ..... 5
Mortgage credit in the United States,1891 ..... 7
Objects for which the mortgage indebtedness existing at 1890 at been incurred ..... 8
For farms ..... 8
Businese ..... 9
Personal property ..... 10
Farm and family expenses ..... 20
Minor combinations of objects ..... 11
Major combinations of objecte, and apportionment of minor combinations. ..... 11
Owned and encumbered farms. Objects of encumbrance ..... 13
Factors which contribute to the use of mortgage credit ..... 14
Farm mortgages in Dane county, Wisconsin, 1915 ..... 15
Pusk and Douglas Counties in Wisconsin .. ..... 17
Farm mortgage loans in Texas, 1915 ..... 19
Individual mortgage credit ..... 20
The Farmer's use of the ohattel mortgage and its development int the farm mortgage. ..... 21
Credit for immediate production and consumption
(Short-time credit) ..... 23
The farmer'a uee of non-mortgage bank oredit ..... 26
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The farmer's use of non-mortgage bank oredit in the ootton states with special reference to Texas ..... 31
Short time farm loans in Texas ..... 36
The use of cattle loans ..... 37
Cotton oredit ..... 47
Tobaoco oredit ..... 48
Credit on the sugar beet ..... 51
Credit on the oitrus fruit groves ..... 53
Crop liens and store oredit ..... 52
Origin and results of crop liens in the South. ..... 53
The Merchant's risk ..... 54
Store Credit and the tenant farmer ..... 55
The landiord as a source of oredit ..... 58
Credit on Farm Implements ..... 59
The farmer's use of store oredit ..... 60
The farmer'a use of cooperative oredit ..... 61
Cooperative producers ..... 62
Cooperative dairying ..... 63
Cooperative irrigation ..... 65
PART II.
Bibliography ..... 1-86
$\square$



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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 oredit; the German syetem of satiefying rural oredit demands; or even to devise a plan whereby the farmers of the United States could be furnished With ample oredit facilities. But none of these phases of credit are to be discussed under this head. For after compiling a bibliography of the aubject of Agricultural Credit, as complete as it is possible to make a bibliography by consulting Pool's Index, Reader's Guide, Faxon, Fhodes Journal of Banking, Rand MoNally's Banker'a Monthly, Banker's Magazine, Chioago Banker, New York Times Index, The Experiment Station Reoord, Agrioultural Index and the Agrioultural 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 oredit. However, there are a few brief artioles which indioate the use of oredit locally for specialized types of farming as the growing of cotton, tobacoo 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 authentioally I shall make use of such exerpts and hints of the farmer's use of oredit as can be found in the literature of Agricultural Credit, the reports of bank commissioners throughout the United States, Government atatistics, 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 dealere in livestock and feeding stuffe and farmers who have mortgages on their farme.

## Classification of the Farmer's Credit.

In order to disouss the farmer's use of credit, it will be found oonvenient to separate the subject into two distinct parts - first, long-term oredit and seoond, short-term oredit. Long-term credit is the form generally used to buy land and make permanent improvements as buildings, silos, drainage, eto., 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, eto.

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

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

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

## Land Purohase and Improvement Credit

(Long-term eredit)
Under this division of Agricultural Credit, we shall disouse the farmer's use of oredit to buy land and make permanent improvements. In general this will involve the use of land-mortgage oredit. But the reader will appreciate the fact that not infrequently oredit secured by a land mortgage is used to pay off acoumulated debts, to make payments on land purchased, to make permanent improvements as drainage and buildings, to hire labor, to purohase implements, feeds, seeds, livestock and even to meet family expenses. This being the oase, it will be found diffioult at times to designate the precise use which farmers have made of their oredit. However, the most universal method of using oredit for purahasing 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 oredit 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 speoific examples. This was not all, for the farmer who desired to increase the size of his farm oould no longer get land for a trifle. Land was continually taking on higher exchange value. So the farmer who would reoeive capital to purchase more land must mortgage what he had. Then there were the young men who grew up, got married and desired to beoome 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 tenante. Yet many Who were ambitious and had the characteristios of thrift have saved up some money and bought land, making a small 1. See Agrioultural Development in the United States 1900 to 1910 by Dr. John Lee Coulter. Quarterly Journal of Economios, Vol. XXVII, 1913
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 oredit was used previous to 1879 but during the eighties some very striking statistical faots are brought out by the work of G. K. Holmes, Carroll D. Wright and others. Also the investigations made by the Bureaus of statistios 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 Censue, 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 mortgagea increased about 156 per cent. The total number of acres encumbered during this deoade 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 purahase and improvement. This plus the amount borrowed for durable property and oapital 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 2.82 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 oredit 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 oredit but were mostly thrifty persons who had bought farms through the use of mortgage oredit.

* See Census Bulletin No. 63.

Mortgage Credit in United States. 1890.*

The Eleventh Census shows that 886,957 farms, cultivated by owners, were eubject to encumbrance amounting to $\$ 1.085,905,960$. Among the states having the greatest amount of oncumbrance on farm lands are New York with $\$ .34,960,703$, Iowa with $\$ 101,745,924$, Illinois with $\$ 98,940,935$, and Kansas, Miohigan, 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 enoumbrance is in the newer and most prosperous agricultural sections indicates the objects for which the oredit has been used. For the Eleventh Census, investigations were made as to the objects of mortgage oredit, the per cent of the mortgage indebtedness which had been used for each object and the per cont of families incurring the debt for eaoh object. At this point we shall note the results obtained through these investigations.

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## Objeots for Thiah the Mortgage Indebtodnose Existing at 1890 Had Been Incurred. For Farms. *

The purchase of real estate uncombined with any other objeot, 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 objeot induced 6.79 per cent of these families to incur 4.53 per oent of this debt; and real estate purahase 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 purahase of real estate uncombined with any other objeot. 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 purahase of real estate; in the South Atlantio 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

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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 7.32 per cent of these families incurred 5.20 per cent of this encumbtance; in the North Central division 6.64 per cent of these families inourred 4.09 per cent of this debt for improvement purposes; in the South Atlantio division 6.26 per cent of these families incurred 4.94 per cent of this debt for this objeot and in the south Central division the percentage for these families is 3.95 and for this object of enoumbrance 2.96 per cent.


## Business.

As an object of farm encumbrance, business tands for 1.62 per cent of the farm debtor families and 1.95 per cent of the farm encumbrance; in the South Atiantio 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 2.76 per cont of these families and 1.88 per oent of this encumbrance; and in the North Central division 1.32 per cent of these families and 1.49 per oent of this encumbrance.
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## Personal Property.

The purahase of machines, domestic animals and other personal property accounts for 2.77 per cent of the farm debtor families and 2.19 per oent 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 oent and enoumbrance 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 oent and encumbrance 0.60 of 1 per cont. Among the atate and teritories, the highest percentage for these families is 0.05 for Utah and the highest percentage for this encumbranoe 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 oent of these families incurred 13.35 per oent of this farm debt for these purposes; in the South Atlantio division, families 18.15 per cent and encumbrance 11.39 per cent; in the Featern division, families 6.82 and encumbrance 3.13 percent; in North Central division, families 5.19 and encumbrance 2.50 ; and the lowest of all is the North Atlantic division, families 4.00 percent and enoumbrance 1.59 per cent. The total average for the United States is families 5.89 per cent and encumbrance 2.83 per cent.

## Minor Combinations of Objects.

The objects of purchase money, improvements, business and personal property, two or more combined (exoept 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 objecte 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 familiea and 2.80 per cent of the farm debt reapeotively.

## Major Combinations and Apportionment of Minor Combinations.

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. 26 per cent of the farm debt; in the North Atlantic division 82.03 and 83.93 per oent; in the North Central division 69.84 and 72.71 per cont; in the South Atlantio division 64.41 and 65.74 per cent; in the Western division 59.90 and 61.54 per cont and in the South Central division 59.21 and 53.99 percent respectively.

It is believed by the Census authorities that purohase 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 enoumbrance.

The second class of objects, including purahase money, business, improvements, and personal property, not combined With any other object, represents 80.80 per oent of the farm debtor families and 83.51 per cent of the farm onoumbrance; for the North dtlantic 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 oent; and the South Central division, the lowest of all, 63.55 per oent 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 $1 s$ obvious from this varied combination of objects of farm oncumbrance, that mortgage oredit has been eocured for a number of purposes and cannot be defined as purahase and improvement oredit. In corresponding with farmers who have a mortgage on their farms in the states of Miohigan, 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 speoific purpose. In the cases considered, 92 percent of the mortgages had been incurred for the purahase of real estate. The most
varied reply was recoived from a farmer at Marion, Ohio.He stated that his farm was mortgaged three years ago inorder to get money to build a silo, to buy an automobileand other farm supplies, to send his son to college, to paydootor bills and the family store debt.
Ownod and Enoumbered Farme.
Objects of Enoumbrance.*

No. of Farme.
United States
886,957537,72360,32835.31614,39324,60344,451Purchase, improvements, business and 44,451personal property (two or more combined)
Purahase, improvements, businese andpersonal property (combined withobjecte other than farm and familyexpenses)7,410
Purchase, improvemente, business and personal property (oombined with farm and family expenses) ............. 87,171 ..... 103,413,519
Farm and family expenses ..... 52,257

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30,684,018
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30,684,018
All other objecte 23,406
14,591,604

Amount of Encumbrance.
$\$ 1,085,995,960$
699,176,464
49,168,733
57,689,492
21,139,559
12,904,832
66,835,107

30,392,642

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## Factors Mioh Contribute to the Use of Mortgage Crodit.

Untortunately, the Census of 1900 did not seoure data on farm indebtedness, but the Thirteenth Census collected intormation 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 oredit. The farm mortgage statistics colleoted by the Government in the 1910 Census shows a total debt of $\$ 2,293,000,000$ or an increase of 110 per cont orer the farm mortgage debt of smiliar farm in 1890. Although the purpose for whioh 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 onoumbrance and the farmers have raised their etandard 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, fertilizers, etc. From 1900 to 1910, the value of farm buildings increased 77.8 per cent; implements and machinery 68.7 per oent; labor expenditures 82.3 per oent 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, Fisconsin, 1915.

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

The average amount of mortgage indebtedness per paroel 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 $\$ 25,000$ and up.

The average rate of interest is shown for 1,890 different cases or about one-half the mortgages. Of these three-1ourths are at 1088 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.

[^3] 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 22.5 per cent by residents of the state outsiae 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 oent of suah loans are made through them. Less than 4 per cent of the money in mortgages is furnished by trust, investment and ipsurance companies.

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

Purpose of loan. No. Reporting.


The investigators belie these reports to be representative of the mortgage laans in Dane County. Of the 81 mortgages for the purahase of land, many were renewals of suoh mortgages, some for the purahase of an addition to the farm, but all represent the value of land not yot earnest by the farmer. It should be observed that 93 per oent of the 100 loans were for produotive purposes. The othere were mostly made to enable the farmer to bridge over the shortage of funds betreen harvests.
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## Rusk and Douglas Counties, Wisoonsin.

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 tendenoy, 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 Ruek County for ten or more years. The land companies in this region sell tracts to private persons and allow the purchaeer to pay down what he oan and give a mortgage for the rest running from 5 to 8 years. Payments are required annually and in many cases, the purahaser is permitted to make payments at will on any interest date. Unfortunately, a great number of these land contracta 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 oent.

In Douglas county the rate of interest is about six-tenthe of one per oent higher than in Rusk County. The Other features of the loans are essentially the same in the two oounties.

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 oounties. This report is from a
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trust company whiah 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 eurvey. The loans are all small, averaging $\$ 613$ each. The average size of the tracts mortgaged is 107 acres valued at $\$ 21.65$ per acre. The loan on the average represents 36.6 per cent of the farm value, none exceeding 50 per cent of the value of the land.

Of these loans investigated, one-tenth are at 6 per oent, 3 at $6 \frac{1}{2}$ per cent and the balance at 7 per cent. Of course, one per cent oormission is added to this rate and the borrower has to pay the incidental fees. The average rate paid by the borrower, counting overything, is 8.04 per cent. The company seoures 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 purahase two-thirds of the mortgages cold by this oompany 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 Nadison 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 oredit not only to purahase the land but to develop it as olearing, fenoing, improving the land and for the purchase of live stook. From farmers in Rusk and Douglas Counties 235 answers were reoeived to the question "What was the purpose of the loan?" The replies were as follows:
Purp0se of Loan* No. Reporting
Purchase of land in whole or in part ..... 154
Ereoting of buildings or clearing land ..... 33
Buying live stook ..... 28Miscellaneous, as "old debte"
"doctor bills" ..... 10* In many cases more than one purpose was stated ina single answer, as "buying and clearing land"

However, most all the loans were for produotive purposes.

Farm Mortgage Loans in Texas, 1915.

Bulletin No. 355 of the University of Texas, on Cooperation in Agrioulture, Marketing and Rural Credits, briefly sumarizes forty real estate loans in eight different counties. The total amount of these loans was $\$ 115,521.00$ or an average of $\$ 2,888.03$ per loan. These loans were granted on an estimated survey of $\$ 244,525,00$. The amount loaned was then forty-aeven and one-fouth per cent of the estimated value beck of it. The average rate of interest was eight and one-fourth per cont and the average time of the loan is twenty-six and three-fourth months. The average value of the property baok of each loan was $\$ 6,113.13$. The purpose of the loan in five oases 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 oredit or personal oredit on a negotiable note, secured or unsecured, running usually for one year or lese. But in many instances, as we found in Dane County, Wisconsin, a large part of the borrowing farmers seoure some oredit and many enough from asighbors 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 whith the public reoord showe no account. This is the chief reason why accurate information regarding mortgage oredit is so difficult to obtain. This kind of credit has been very successful beaase the borrower lives in the community and the lender knows him personally and knows the exaot purpose for whioh he is to use the money. In fact, the writer is unable to find a single instance where this form of oredit has not been used for productive purposes and it have proven a valuable source of oredit for the farmer who has established a good solvent reputation in his oomunity. The subjeot of short-time neighborly credit will be disoussed under the proper head in the next division.

## The Farmer' a Use of the Chattel Kortgage And Its Development in the Farm Mortgage.

In some localities, the chattel mortgage has become a very important inotrument of credit. From all the data that the writer has been able to obtain regarding the use of ohattel mortgages in various sections of the country, it is evident that this kind of credit paper is used most in the less developed seotions or the region where farming is highly specialized as in the cotton states, tobaco regions of Virginia, Kentuoky, Conneoticut, Southern Ohio and Lancaster County, Penneylvania; 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 Weat. While in the regions of Ohio, Pennaylvania, Indiana, Illinois and Miohigan where more diversified farming is praoticed, the ohattel mortgage has practically passed into oblivisa and has been supplanted by the straight mortgage and personal oredit. However, the chattel form of credit has been highly developed in the above named industries and is handied widely by merahants, implement dealers, dealers in feeds, fertilizers, live stock and others. It is the instrument of oredit 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 ohattel mortgage loans, while at an auction ale 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 tine sales
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 purahaser 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 ues of this form of credit.

This form of credit is usually designated as orop liens, oattle loans and short-time or personal oredit. 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 oredit 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 ahattels he had). Cases of this sort have been reported especially in the ootton and tobaoco sections as heretofore indioated. 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 produotive 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 oredit has been secured for productive purposes.

GREDIT 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 oredit have been satisfied by the employment of both sorts of credit as related to time. While the length of time oredit is employed has a fairly definite relation to the kind of oredit, 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 oredit. 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 oredit.
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Very little use existed for any of the objecte of short-time oredit previous to the latter half of the nineteenth century. Ante-dating this period, if a patoh 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 oapaoity, he ignored them and cultivated the virgin soil. In fact, the use of fertilizers was far more foreign to pioneer farmer than "rural credita" to the modern farmer. As for registered live otock, little desire existed. To the average man, one animal was as good as any other of the same family, weight and color. Wile better tools and more hired labor might have been used to advantage, obvious reasons obstructed their employment. Very few modern farm implemente 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 outter and
a hoe. Most all of these he made for himself with the aid of a jack knife, blacksmith's anvil, hammer and bellis.
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With the development of scientifio 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 magnifiodnt just as the old log oabins that once dotted the land have been renewed by the modern, two story, pioturesquely painted farm dwelling. Consequently, in modern farming, capital must be had adide from the investment in the farm iteelf for land improvement as fences, drains, wells, roads, etc., for the construction and upkeep of buildinge, - dwelling, barns, silos, stalls, shafting and building equipment, for farm equipment as teams, hamese, wagons, implements, live stook, production, oto. All this may be grouped in a general way as necesaary sixed capital. Then there is the oiroulating capital required to carry on business, to hire labor, to market crops and live stock, to buy eeed, feed, fertilizers and other farm supplies. rhorefore, 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 progrese. 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 aocessories.

## The Farmeris Use of None-mortgage <br> Bank Credit.

May 27, 1912, the Comptroller of the ourrency, 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'e 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, Kr. Kemmerer inquired at every opportunity of individual bankers conceming their experience with regard to loans to farmers in different parts of the country. The replies received were so divergent that no conolusion 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 oommercial 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, hovever, such loans by banks are more common. The oashier of a national bank in a town of about 800 population in an agrioultural 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 sohemes 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 speoial effort to secure such business by sending to a considerable mailing list of carefully selected farmers oirculars and personal letters .... but the business did not come. My inference 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 cattic and the carrying of cattle or hoge to maturity. Through Indiana
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these farmers' loans are very usual in the oountry 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 suffioiently responsible to be entitled to and to receive reasonable oredit without security.

Farmers seem to endorse for each other much more readily than do those of other classes...... The reason is, I think, olear. Each knows pretty much everything about his neighbor's financial status, the amount and value of his land, his live stook, 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 oomes from the national bamk in Lincoln, Nobraska, from which the following extracts are taken:

The farmers of this state have need of accomodations of this kind to carry them through the orop season. As a matter of fact, they use short-time oredit 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 town 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 satistactory security aside from mortgaging his farm for such temporary loans within any
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reasonable limitations. In some cases, the banks take abattel mortgages on cattle or other live stook and in some cases, where the farmer has a good qquity 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 otate as to their willingness to go eocurity 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 beoome less and less until now there is very little signing done for others. In fact, the farmers feel that they are able to take oare of themselves and do not ask others to sign with them and are able to handie themselves without such an endorsement. This is true of all classes in this state.

I have never felt that in this locality farmers ouffered in any way from lack of oredit 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 oases the mortgage was taken to obtain additional security for loans previously granted and secured otherwise.
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I think it would be safe to say that bankers, as a rule, have not favored short-time unseoured 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 oloser 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 oredit at a bank.

Our farmers, as a class, are exceedingly reluctant "to go each other's security". Two-name paper is mostly confined to commeroial 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 oharged is two per cent higher than that on commeroial loans, the explanation commonly given being that a farmer borrowing generally reduces the resulting deposit credit more rapidly than does a merohant.

In the Southern States, particularly in the ootton, rice and tobacco seotions, the use of orop 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 ehow that the amount of short-time agricultural oredit extended by banks in the South is relatively small but rather rapidly increasing. The banks are oatering more and more to this class of business.

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

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

## The Farmer's Use of Non-Mortgage Bank Credit in the cotton States With Speoial 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 perenniale, so to speak. The most common answer to the question, what per cent of your borrowers ask for accomodation 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

[^4]nearly all repeaters.
The one great purpose of most farm loans in Texas is to help "make the orop". The usual iteme involved in making a orop 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; commeroial and trading transaotions, holding cotton, accomodations to tentents and extensions of preceding loans for the purpose of tiding over the farmer after a bad year or until a late orop is gathered. About 15 per oent of long loans are for investment and improvements, involving such iteme as land purchase, stook, 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 slos applied not infrequently to the purchase of mules, plows, and to making improvements. One-eighth of the emall loans were olearly for the purpose of consumption.

Taking into consideration all loans upon whioh 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

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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 monthe, the smaller ones four months). The bankers, in their answers, show an average duration for all loans of six monthe, whioh is also clearly the mode for their data. If we separate the long-time loans (over six months) from the short-time loans, ve find that the average period for long-time loans is nine months while three months is both average and mode for shorttime 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 auch security is required in about ninety per cent of the cases in which security is demanded at all. Personal endorsement is next

[^6]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 seoured. The anower run all the way from 15 per cent up to 100 per cent. From 75 per cent to 90 per cent seems most common. I'he state banks show a smaller percentage secured than the nationale.

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 tentant 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 tenante, 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 lese than $\$ 100, \$ 50$ and $\$ 75$ being very oommon and his aggregate borrowing during the year will run from $\$ 200$ to $\$ 600$. (3) Tenant farmers' loans are ueually made in the winter or spring to be repaid the following fall or winter and so averaging from seven to nine monthe. (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 landiord or of some friend aoceptable to the lender. (5) The statistics already cited ooncerning interest rates on small loans apply to tenant loans also. Tenants borrow oonsiderable from outside parties. In this oase, higher rates of interest are usually exacted.

## Short-Time Farm Loans in Texas. *

The following are remarks on short-time loans to farmere upon evidence gathered in 110 aifferent cases in ten different counties. They cover the years 1913, 1913 and 1914. The total amount of the loan is $\$ 27,778.00$ 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 eeven 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 $1 s$ lo per cent. As to time of loans, there are two payable on demand and the others vary from one to twelve monthe. The nature of the seourity given for these loans is interesting. Under the leading chattel mortgage or lien against orop, 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 oases and an open account in one. In ten oases, no security was required. The purpose for which the loans were made are worthy of note. Supplies, expenses and to make crop are given in 71 cases; to pay off old debts, five cases; cattle and feed together, seven oases; teams, payment on land, to make improvement and machinery, two each; while in nineteen cases, the purpose of the loan is not given.

[^7]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 cattie 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 2850, 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 stook yards and at shipping points. There being a daily
demand for all meat products, these men who handled cattle in a wholesale fashion and on a commission basis knew that the seourity of "oattle paper" could be turned into cash any day. Bo dealers in oattle at Omaha, Kansas City, Ohicago, St. Louis, Portland, Fort Worth, Sloux City, El Paso and other livestock markets discovered that this variety of security was perfectly safe. Interest in the business grow 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 lese 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 oompany to the farmer for winter feeding on share profits. Clay, Fobinson and Company, Cniago, have found this a rery profitable business in Miohigan. 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 Wisoonsin. As heret of ore stated, the cattle ranches throughout the Weat 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 distriots of Nebraska are typical of the changes which are taking place throughout the cattle growing territory.
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In Nobraska farmers raise great quantities of $00 r n$ and alfalfa. They breed and raise as many beef oattle 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 com, alfalfa, fodder and other forage gromn by the farmers themselves. By produoing all the grain and roughage consumed by the feeders, the farmers who make a business of finanoing oattle for market, earn double profits on their crops and on their livestook 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 oattle loan market of America, from 200 to 225 millions of dollars are loaned annually on cattle. The writer is unable to obtain any exaot 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.
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## Stookers Loans.

Stookere loans are made to farmers to buy heifers, 00ws, 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 oows and pure-bred bulls on oredit is to be found in the Marinette County Advancement Assooiation, Wisconsin. This is really a cooperative propaganda. 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
then oarefully investigate the merita 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 applioations have been accepted for a car-load of stock, the purchase is made. Professor F. H. Soribner of the University of Wisconsin assists in pioking 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 resouroes and liabilities. Then he must take the stook bought for him according to the terme of his application. Upon receipt of the atock, 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 the country.

During the three yeare previous to 1916, for which time this plan had been in operation, more than $\$ 20,000$ worth of pure bred Holsteins and Guernseys were purahased 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 Xatthews, State Food Commissioner of Illinois. In 1916, at a meeting of the bankers, business men, feed merohants 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 oredit 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 distriots. 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 orops of forage and grain produced, grazing oattle has been found much less profitable than pen-feeding oattle. So the latter ia the chief practioe 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 attle 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 reporte 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 oompanies and experienced farmers in the more intensive farming sections.

## Security of Cattle Papor.

The safety of a scrupulous, well defined cattle loan is beyong doubt par excellence. First of all, there is the chattel mortgage on the livestook, more than enough to iiquidate 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 atookman, farmer or ranoher back of the business. Behind these obligations is the endorsement of the cattle loan company or "oattle bank" as they are sometimes called, which does a large volume of business and handies 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 Kanses Livestook 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 finanoial responsibility and strength of conneotions, supporting the institution selling the paper and the ability, experience and integrity and safe policies of the individuals concerned in ite management. The knowledge that they make careful and thorough inspections and look olosely 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 cattien.
3. The character of the security, amount and margin, location, arrangements for feed, water and handiling 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 merket, 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 oattle, calves and young stock are usually subject to more hazards than other loans. All oonditions surrounding loans of this oharacter should be looked into very carefully with regard to eafety.
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 oertified copy of the mortgage should accompany the loan, showing filing, and that all legal requirements have been complied with.
7. It is very important that all the stock mortgages should have distinctive brands and the looation clearly recorded in the mortgages by which the oattic oan, at any time, be identified immediately. The cattie should be in pastures enclosed with fences and the mortgage should cover all cattle of any certain brand or be a blanket mortgage oovering 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 oircumstances eerious 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 seourity is not being impaired or dissipated.
10. Loans of equities or undivided interests are undesirable.

## Cotton Gredit.

It is not only in Texas that "cotton oredit" is extensively employed. All the "cotton states" are seriously affeoted by this would-be beneficial practice. However, in Texas there is a greater use of bank oredit for the growing of cotton orop than in any other state. As a result, the greater part of the orop liens on growing ootton in the otates other than Texas are held by merchants, tradesmen and landiords. These are the most expensive sources of oredit 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 seoured for the production of crops.

The cotton orop-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 olothing 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 viotim may have in his possession. The debt is due and must be paid as soon as the orop is harvested. The lender gets the orop 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 80 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 seeme to know about it and the information is 80 general that speoifio 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 speoific referenoes are treated under the head of "Crop Liens", "Cotton Credit in Texas", "Store Credit", etc.

Tobaoco Credit.

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

Like the crop-lien system in the ootton states, this practice is so historic and well known that little has been said in history and agrioultural 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 1912, conditions in the white burley tobacco distriot 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 landiord furnishes his tenant a house, a garden or truok patoh, 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 tobacoo, the grower will come to the storekeeper usually and tell him that he would like to get an advance on his crops. The atorekeeper finds out how muah tobacco he has out and determines what would be a safe loan on the crop. The grower then gives his note at 8 per oent interest on the orop. 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.

[^8]:
"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.
"On the tenant's side, the aystem is equally unsatisfactory. It keeps him without money of his own for the greatest part of the year. His family and himself are denied the thinge they ought to have oftentimes when they most need them. Suddenly he comes into possession of money, or at least power to purchase. The tendenoy 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.

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The value of their orop 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 tobaco crop will not grow well unless it 18 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 practioe of advancing money on the growing orop alike disastrous to the lender and to the borrower".

## Gredit on the Sugar Beot.

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 beat growing areas of Louisiana, Mississippi, Missouri, Michigan and other states. 'lhe necessary addenda is advanced to the grower by the merchant, landlord or tradesman or factory. Then when the orop 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.

## Gredit on the Citmus 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 oredit in irrigating the growers.

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

CROP LIENS AND STORE CREDIT.

We shall first consider orop 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 oredit. There are several local reports setting forth the use of orop liens and store oredit. 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, Missiseippi, Alabama, Georgia, North Carolina and South Carolina.

[^9]
## 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 aores of cotton, allowing a good margin against a possible crop failure. This syotem 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 ootton with a constant tendency toward over produotion and with a low price of the cotton. The ootton 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 merahant, 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 oredit 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 orops grown in the South, on a commercial scale, are financed by the crop lien method.

## The Merchant's Risk.

Mr. Lovejoy, himeelf a merchant, believes that the excessive rates are one aase 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 oredit of the individual. If a man is practioally certain to pay, goods will be sold at perhaps 10 per cent advance of the cost; if the riak 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 oredit.
the merohant 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
as for the planters. Merchants are not prosperous when the farmers are not because they lose 80 much on their advances. Farmers do not borrow much money on orops and chattel security from banks but ohiefly from merchants who themselves obtain loans from the banks.

## Store Gredit and the Tenant Farmer.*

A majority of the tenant farmers find in the country merohant their chief source of credit and store oredit 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 orops as security. Probably less than 10 percent of farm owners are accomodated 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 orop mortgages have little or nothing left. One of them will go to his merchant about February let and ask for credit unt i he can make a orop in the fall. The merchant will agree to extend a certain amount of oredit in turn for a mortgage on the prospective crope of the tenant and any other property which he may own, 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 aore. 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 depende on the charaoter of the tenant and the number of his teams. The ageregate 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 indiated by the crop mortgage form whioh accompanies the farmers' note.

The orop 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 oomplained that the borrower is over charged for his goods. If the farmer borrows $\$ 300$ he gets only $\$ 275$ In oash 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 merahant who holds the mortgage on his orop. 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 auch as chiokens, butter and eggs. The total interest paid under suah ciroumstances averages at least 20 per cent. On the other hand, the tenant is often a shiftiess and unreliable person and the percentage of bad debts is high. Not infrequently the merohant has to carry the farmer over Ior another year because of crop failure. In this way, a big sum of debt aocumulates and in order to out a long debt short, the tenant "pulls up" and leaves the country.

The tenant ts compelled to get his oredit of the merchant and not of the banker because the bank refuses to make long loans; the tenant wants oredit 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 oare for and generally will not take orop 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 oent 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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farmers on orop mortgae security. The merchant in turn endorses and turns over to the bank the farmer's note and orop 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 ootton crop in the fall.

## the Landlord as a Source of Gredit.*

It is probable that in most parts of central Texas over 90 percent of those tenants who owe the store are aleo indebted to their landiords for larger or smaller advances. Storekeepers, as such, only give oredit on food, supplies, implements, etc., whereas cash or its equivalent is of ten needed for mules, feed and other current expenses. The 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 aocomodate 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 landiords may make larger profits

[^10]by charging high rates. To carry their tenante, 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, farmers 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 oredit 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 oredit. 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 oprt of instrument from a pitah 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 opeaks well for boththe company and the American farmer. Further information regaring loans on farm implements and machinery is brought out in the discussion of chattel mortgages, store oredit, short-time oredit 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 aituation 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
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 sover all possible losses and most anyone else would do the same. It is a business proposition but often extortion prices are oharged just because the farmer is ignorant and the merahant 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 oredit has been $s 0$ prolonged and the store debt has so aocumulated 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.

## Thie Farmer's Use of Cooperative Credit.

The writer realizes that this topic is likely to be misapprehended by the layman. The subject of ooperation 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. Theretore, 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 soanned 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 OI cooperation; the principles and benefits of farmers' cooperative organizations; the problem of finanoing such organizations or any phase of the general subject of cooperation but to set forth a few of the principal types of farmersi cooperative organizations, give one or more living examples of each and relate very briefly in each case how the organization has used its oredit for the mutual benefit of its members.

## Cooperative Producers.

There are many varieties of productive oooperative 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 orop improvement associations; (Corn breeding assooiations 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
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 reoeive the livestook pay the secretary-treasurer of the aseociation in installments or in full at some stated time in the contract. The secretary-treasurer in turn setties the original note for the livestook. Thus the association enables its members to secure oredit which they, as individuals, oould 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 assesement 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 assoolations are productive organizations and will allot them due spacs under their respective titles.

Cooperative Dairying.
Nany 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 uee of oredit by one apecific example. Among the most prominent dairy associations are the Minnesota, Wisoonsin, Michigan and Illiñois cooperative dairies.

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 practioal and working acheme of rural credits. Several bankers have united to lend money to farmers on a safe basis for the purahase of dairy animals. Then the business men's associations of the sevessal 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 contraots to raise all his heifer alves. 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 diatricts of Wisoonsin 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 suocessful that it has oxread 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 projeots unlike drainage projeots, 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 anong 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 oapital, by direct assessment of the capital stook, 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 coopsrative 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 hardiy sufficient for ten acres of mature oitrus 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 looal conditions as well as the original cost and acre rights are now valued at from $\$ 100$ to \$300 for citrus fruits."

Nany 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 uaually defrayed by charging for service or by taxing the stock. These nutual water companies have proved successful. One large mutual oompany 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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[^0]:    - See Bulletin 63 of the Eleventh Census.

[^1]:    * See volume 6 of the Eleventh Census, page 142.

[^2]:    * Bulletin 63, Eleventh Census.

[^3]:    * Farm Credits in Wisoonsin. January, 1915, Bulletin 247.

[^4]:    * Adapted from the eurvey of farm credit conditions in a ootton 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.

[^5]:    * These loans average aver $\$ 2,000$ and run from $\$ 450$ to $\$ 6000$.

[^6]:    * Farmers generally borrow in the spring (February - April) to pay from the autumn crop.

[^7]:    * Adapted from Texas University Bulletin No. 355, on Cooperation in Agriculture, Marketing and Fural Credits by Charles B. Austin and G. S. Wherwein, Division of Public Welfare, Department of Extension, 1914, pp. 76-77.

[^8]:    * Annals of American Academy, Vol. 50, pp. 186-9, 1913.

[^9]:    * Industrial Commiseion Report, Vol. X, p. CVI, 1901.

[^10]:    * Adapted from "Farm Credit Conditions in a Cotton State" by Lewis H. Haney. American Economic Review. March,1914,p.54-5.

