### GREAT CATTLE INTERESTS.

Deductions From the Bureau of Statisties Recent Report.

The Great Area of Country Used in Caring for the Bovines.

Fifty Millions Eating and Drinking.

The bureau of statistics, says the Philadelphia Press, has recently issued a report of unusual interest relative to our vast cattle interests, in which special attention is given the range and ranch cattle business of the United States. It is only within a comparatively recent period that the public have realized the magnitude of this industry. The territory embraced in what is commonly known as the range and ranch cattle area embraces about 1,365,000 square miles and constitute 44 per cent of the total area of our domain, exclusive of Alaska-an area equal to that of Great Britain and Ireland, France, Germany, Denmark, Holland, Belgium, Austria, Hungary, Italy, Spain and Portugal, and one fifth of Russia in Europe combined. Throubout this vast area, which extends into fifteen states and territories, the Indian and the buffalo have been superseded by the cowboy and the Texas steer. Upor these extensive plains, browsing and fat-tening on the public domain, roam thou-sands of head of cattle, and every year droves of cattle thus find their way East to the slaughter-houses of Chicago and other points, and from theace the beef is shipped to all parts of the world.

Thanks to the development of our rail-road system, the cost of everything these cattle fattened upon the rich grass of pastures of which at present are as free as the air they breathe or the water they drink, has been reduced to a sum which has made the cattle traffic from the far west one of great possibilities. The freight charge for transporting cattle to Chicago from the meridian passing through the center of the range and ranch cattle belt is about \$6.50. The current rate per head from Chicago to New York is about \$4.80. The total freight charge for transporting a steer from the cattle belt to New York may, there-fore, be stated at \$11.30. Add to this the freight of the carcass or the live beast to Liverpool or other European ports, which is not more than as much again, and it will be seen that we are likely for some time to come to utilize these far western plains in supplying the European world with meat.

The rapid development of the cattle interests may be seen by a glance at the subjoined table:

Joined choic:	MA
	Total No.
Year.	cattle.
1850	17,778,907
1860	
1870	23,820,608
1880	35,925,511
1884	49.417,782
The estimated value of the	ese cattle ag-

000 of the total number comprise the Texas cattle and the range and ranch cattle area north of Texas, constituting in value 28 per cent, of the total value of the cattle in the United States- The increase in number has been largely restricted to the range and ranch area. With the increase of cattle raising in the

west and the improvements in transpor-tation has come the comparatively new business of shipping dressed beef from the west to the east. In 1880 this movement amounted to 15,680 tons; in 1881 it had reached 75,359 tons; in 1882, 93,110 tons; in 1883, 145,871 tons and last year 173,-067. The rapidity of the growth of these shipments will be somewhat a surprise to those English free traders who are advising the British farmer to quit competing with America in raising wheat and try some-fhing else—namely, cattle raising. But this 173,000 tons of meat is trifling compared with the possibilities of the trade when the shipping points of the west are fully awakened to the importance of the trade. This, up to the present time, is exclusively a Chicago enterprise, and the castern shipping points were chiefly in the New England states. Of the total shipment of 173,058 tons of dressed beef, 172,824 tons were from Chicago, St. Louis contributing but 203 tons, Buffalo 21 tons and Illinois 10 tons. During the coming year, other cities, notably St. Louis, will engage extensively in the business and the shipments will be greatly increased.

### THE NEW CHINESE MINISTER. He is Described as a Gentleman of High Culture.

The new Chinese minister, says a Washington disputch, is described by an attache of the legation as a gentleman of high cul ture, who has held many important positions in the empire. He was superintend ent of the circuit of the province of Keingsi, then superintendent of customs in Che Foo, and last year was a member of the Tslung Yamen, which is similar to the English ministry of foreign affairs or the secretary of state in this country. The viceroy has several advisers who hold about the same relation to him as the cabinet holds to the president. We have no office in the United States similar to the superintendent of a providence circuit in China. Ching Yin Huan is a Mandarin of the second rank by brovet and a minister of state of the third class. "He is very progressive in his ideas," said Mr. Hensen. "He is very fond offereign articles. He is a man of broad and comprehensive mind. I have never seen him, but I am in formed that he is a gentleman of middle stature and between forty and fifty years of age. He is very wealthy. His father was one of the richest men of his province before his death, and was known through all China for his riches. The new minister travels in magnificent state wherever he "Does he speak English?" think not. The elder portion of the Chinese population acquired their education before the extension of commerce to any extent with English-speaking countries, and the numerous duties connected with the office held by high personages prevent them giv-ing the necessary time to the learning of English."

# BALLAD OF BLUE CHINA.

There's a joy without canker or cark,
There's a pleasure eternally new
'Tis to gaze on the glaze and the mark
Of china that's ol', and that's blue;
Who'd have thought they would come to u

That o'er loot of an empire would have
A veil of Morrisan hue.

In the reign of the Emperor Hwang?

These dragons—their tails, you remark,
Into bunches of lotus flower grew—
When Noah came out of the ark,
Did these lie is wait for his crew?
They snorted, they snapped, and they flew;
They were mighty of fin and of fang,
And their portraits Celestials draw,
In the reign of the Emperor Hwang.

Here's a pot with a house in a park, In a park where the peach-blessoms blow.

Where the lovers elepsed in the dark,
Lived, died, and were turned into two
Bright birds that eternally flow

Through the boughs of the May as they sang;
The stale was undoubledly true. 'Tis a tale was undoubtedly true In the reign of the Emperor Hwang.

Fix the roosts so the hens won't have to roost in a draft. It gives them a cold that ends in roup.

# THE NATIONAL FINANCES.

A Recapitulation of the Public Debt Set Forth on the 1st.

The following is a recapitulation of the debt statement issued September 1st (new form): INTEREST BEARING DEBT.

Bonds at 44 Der cent. \$250,000,000 00

	Bonds at 45% per cent Booken, ood to
	Bonds at 4 per cent 737,733,400 00
	Bonds at 3 per cent 194,190,500 c0
	Donna Re a her Constitution 104 toologo co
	Refunding certificates at 4 per
	cent 229,500 60
	Navy pension fund at 3 per
	cent 14,000,000 00
	Pacific railroad bonds at 6 per
	cent 64,623,512 00
	Principal 1,260,776,912 00
	Interest 10,719,883 03
	Interest 10,719,883 03
	Total
	DEBT ON WHICH INTEREST HAS CRASED SINCE
	DEDI ON WHICH INTEREST HAS CHARLE STORE
	MATURITY
	Principal 8,921,765 26
1	Interest 223,780 81
И	AMERICA CONTROL CONTRO
1	Total 8 4,145,546 07
9	
И	DEBT BEARING NO INTEREST.
2	Old demand and legal tender
3	notes \$ 844,738,916 00
3	The state of the s
1	
1	Gold certificates 123,885,490 00
ň	Silver certificates 96,079,296 00
1	
ı	
ı	Less estimated as lost or de-
1	stroyed
4	
ı	
1	TOTAL DEBT.
1	#1 ##0 000 K40 14

Principal \$1,869,228,542 14 Interest 10,048,633 84

Less reserve l'eld for re emp-tion of Unit d States notes... 100,009,000 00 Total debt, less available cash CASH AVAILABLE FOR REDUCTION OF DEBT. Gold held for gold certificates actually outstanding... Silver held for silver certifi-estes actually outstanding... United States notes held for certificates of de orit, actual-\$123,885,490 00 96,079,296 00 30.865.000.00

ly outstanding. Cash held for mutured debt and sterest unpaid. Frectional currency...... Total available for reduction of debt ...... \$256,763,295 77

RESERVE FUND. Held for redemption of United B ates notes, act of July 12, 1882..... UNAVAILABLE FOR REDEMPTION OF DEBT. Minor coin.....

\$25,571,341 23 Total.... CASH ON HAND. Certificates held as cash issued but not outstanding....... Net cash balance on hand..... Fotal eash in treasury as \$60,014,120 00 shown by treasurer age noral

492,065,839 75 account. Decay of a Great French Industry.

A story which furnishes its own moral is published in a French paper. During several centuries and up to the year 1880, the manufacture of gold and silver laces and fancy trimmings constituted an important industry and was a source of great profit to all who were engaged in it. In Paris the trade the great prophet of the advent. was prosperous and over 1,200 families were supported by it. About two years ago the workmen concluded that the manufacturers were making too much money, and, after holding a series of and other places where the trade was carried on to a considerable extent. For a time they were promptly filled, to all the towns in France where these goods were manufactured and induced their colleagues to join in the strike for higher wages. The strike of the persons engaged in this branch of manufacturing then became general throughout the entire country and it was believed that the manufacturers would be obliged to conform to the demands of the workmen. They did not do so, however. They sent their orders to Great Britain, Germany, Belgium and Norway, where men were glad to work at the pay that Paris workmen had re-The result of the strike was that the men never returned to their work, for the industry in France was rained. The men who engaged in the strike were supported for a time by the members of other trades-unions, but were finally left to look out for themselves. Most of them were ruined financially and their families were in want of the common necessities of life. A few moved to other countries, where they engaged in their old business for less than they formerly had received, but most of them had no means to en-

### mon laborers. The Government Clerk.

able them to emigrate and became com-

So enervating is the life in the department, through little work and sure pay, that the young man who has once experienced its relaxing influence loses all good for active business life. Not long ago a gentleman acquaintance of mine tried to secure the services of a young fellow employed in the Interior Department. The latter once had been noted for his energy, quickness and activity; he had taken care of himself since he was a boy. His early life had bred in him unusual habits of selfreliance, confidence and energy. Three years ago he was one of the most faithful, untiring workers. A little over a year ago he secured, through a friend, a place in the Interior Department, at a salary of \$100 a month. It is a place where he has not the remotest chance of promotion. Through this year of non-action the lad has been thoroughly rained for active business. When close its career on the completion of offered the other day a business place one of its annual revolutions: in other with equal pay, with chances of promowords, in the fall of the year. And so this where he has nothing to do and no reof future fortune. Washington letter.

A circus never runs too long for the Let the world look out for 1899. spectators, but let a sermon run over forty minutes, and the congregation can hardly manage to control the r profanity.

young man there, my young lady?" a day's work. Less than one hundred years the is the son of the Mr. Loeckle." ago machinery of any sort was not dreamed and what shall be then become?" To was spun by hand, and knit by the same the church? So? I thought to the means lute hose. - Texas Farm and Ranch.

# A CURIOUS CALCULATION.

The End of the World Figured Out, and the

Period Fixed at 1899. The following singular and very curious calculation, by which the approaching end of the world is determined, has never before been made known to the public, writes a Waterloo, Kan., correspondent of The Louisville Courier-Journal, and may be of very great interest to those who have been studying the prophecies, or watching the progress of human events. Believe the results or not, as we may, nevertheless here are the figures, which any reader can verify for himself. If these results are here correctly foretold, then the startling facts stares us in the face that the world is within fifteen years of its close. In the fall of 1899 the final winding up is to take place. Here are the calculations. Let the reader carefully examine them:

To begin. There are several important prophetic periods made known in the scriptures, and various dates, as well as significant numbers, such as the great period of 2,300 years mentioned by Daniel, the period of 1,290 years, and the period of 1,335 years. Besides these there are in the book of Revelation other periods and significant numbers, such as the 1,260 years the period of the woman's sojourn in the wilderness, 1,000 years the period of Satan's being bound, and 666 the number of the beast. Enoch's age (365 years), who prophesied of the second advent among the antediluvian sinners, is also beyond all question a symbolic number.

complete the revolution of the earth around the sun, making one year, so his 365 years may be symbolic of the great prophetic periods known as "days," one grand revolution of which is to complete one of time's great years and finish earth's career. "Seven" is also one of the significant numbers of scripture, and a "week of sevens" or 7 times 7, still more so. The student of scripture will readily recall frequent instances of this significant tigure 7, and especially the more im-\$100,000,000 00 portant one of 7 times 7, or 49—the number of final completion, the finishing of all mysteries, the winding up of

Perhaps, like the 365 days which

earth's attairs. Very well. Now, take these figures, add them together, and see what you 2,300 years, Dan's great period for

the cleansing of the sanctuary. 1,290 years, measuring the continuance of the "abomination of desola-

1,335 years, the period of "blessedness" to the saints.

1,260 years, the duration of the woman's sojourn in the wilderness. 1,000 years, the binding of Satan.

666 years, the number of the "beast" who is to go into perdition. 365 years, the symbolic age of Enoch

49 years, the number of final completion.

Total, 8,265 years. Now remember that before all the catastrophes denounced on maukind meetings, resolved to strike for higher as the divine judgments against sin The manufacturers, who con- there were usually periods of "waitcluded that they were masters of the ing" before the judgment fell so as failure because his mustard plasters situation, sent their orders to St. Etienne to afford opportunity for repentance were no good. He had tried to save four hours in a solution of one pound range abundant they will do better for and escape, and these periods multiplies of 40, as, for example, before the flood, 120 years; before the conquest but the Paris workmen sent deputations of Canaan, 40 years; and before the fall of Nineveh, 40 days, denounced by the prophet Jonah. Now add together 120 years of Noah's warning before the flood came, 40 years of Israel's warning before judgment fell on the guilty Canaanites, 34 years that the witnesses layd unburied preparatory to resurrection, and three years dur-ing which the owner of the vineyard came seeking fruit and finding none, at the expiration of which period the lig tree was to be cut down, and you have 1661 as the sum.

Now, to apply these mystic numbers and learn their significance, imagine your life divided into the four periods of childhood, youth, manhood, and old age, so as to get it in its complete-Take your age in years, leaving off months and days, add it to itself three times (one for each of these four periods), add to it the mystic number 8,265 (the sum of the great prophetic periods), in order to ascertain the full sum of time's revolution, and divide the amount by four (the number of universality, because the calculations apply equally to every human being), subtract from the quotient the other mystic number 166) (periods of warning given to man before the execution of tinal doom), and from the remainder deduct the number of years you have lived in this sublunary world,

and you get the number 1,8991. Now it matters not what age you take, that of the little child or the old man, the result is the same, the ominous 1,8997 always remains as the one fatal period when every human life is to close. But the one year in which every human career is to terminate and every life close must be the final year, the winding up, the conclusion of all sublunary things, the year of

doom. A singular confirmation of this calculation is to be found in the fact that, according to an old Jewish tradition, the world was created in the fall of the year, of which the old feast of trumpets, occurring in October, was supposed to be the memorial. And it would be natural to suppose that it would be very appropriate for it to tion, but coupled with a slight risk, so remarkabe calculation plainly indifar as responsibilities are concerned, he cates. The three-fourths singularly refused to come out of his snug nest, points out that fact. Hence, if these conclusions are not erroneous, we sponsibilities, to take the chances that have the startling prophecy before us a little over a year ago he would have that when earth reaches one of her anatched at eagerly as the foundation great milestones on the highway of time in October, 1899, a mighty hand will be laid upon her and she will stop.

During our colouisi days the cotton plant was grown only in private gardens as a rar Quite tall: Who is then the sky-tall exotic. At first the lint was picked from the

### The State of Maine.

The state of Maine is a good place in which to experiment with prohibition, but is not a good place to farm in very largely. In the first place, the season is generally a little reluctant. When I was up near Moosehead Lake a short time ago, people were driving across that body of water on the ice with perfect impunity. That is one thing that interferes with the farming business in Maine. If a young man is sleigh-riding every night till mid-night, he den't feel like hoeing corn the following day. Any man who has ever had his feet frost bitten while bugging potatoes, will agree with me that it takes away the charm of pas-toral pursuits. It is this desire to amalgamate dog-days and Santa Claus that has injured Maine as an agricultural hot-bed. Another reason that might be assigned for refraining from agricultural pursuits in Maine, is that' the agitator of the soil finds, when it is too late, that the soil itself, which s essential to the successful propagation of crops, has not been in use in Maine for years. While over the state there is a magnificent stone foundation on which a farm might safely rest, the superstructure, or farm proper, has not been secured. If I ad known when I passed through Minnesota and Illinois what a soil famine there was in Maine I would have brought some with me. The stone erop this year in Maine will be very great. If they do not crack open during the dry weather there will be a great many. The stone-bruise is also looking unusually well for this season of the year, and chillblains were in full bloom when I was there.

In the neighborhood of Pittsfield the country seems to run largely to cold water and chattel mortgages. Some think that rum has always kept Maine back, but I claim that it has been wet feet. The agricultural resources of Pittsfield and vicinity are not great, the principal exports being spruce gum and Christmas trees. Here also the country seems to run largely to Christmas trees. They were not yet in bloom when I visited the state, so it was too early to gather popcorn balls and Christmas presents.

Here, near Pittsfield, is the birthdace of the only original wormless dried apple ple with which we generally insult our gastric economy when we lunch along the railroad. These pies, when properly kilu-dried and rivited, if fitted out with the Yale time locks, make the best fire and burglar proof wormless ples of commerce. They take the place of civil war, and as a promoter of intestine strife they have no equal. The farms of Maine are fenced in with stone walls. I do not know why this is done, for I did not see anything on these farms that any one would naturally yearn to carry away with him. I saw some sheep in one of these enclosures. Their steel pointed bills were lying on the walls near them, and they were resting their jaws in the crisp frosty morning air. In another enclosure a farmer was planting clover seed with a hypodermic syringe, and covering it with a mustard plaster. He said that last year his clover was a complete second-hand mustard plasters, and of course the clover seed, missing the warm stimulus, neglected to rally, and the crop was a

Here may be noticed the canvas back moese and a strong antipathy to good rum. I do not wonder that the people of Maine are hostile to rumf they judge all rum by Maine rum. The moose is one of most gamey of the finny tribe. He is caught in the fall of the year with a double-barrel shotgun and a pair of snow shoes. He does not bite unless irritated, but little boys should not go near the female moose while she is on her nest. The masculine moose wears a hair lip and a hat-rack on his head, to which is attached a placard, on which is printed: PLEASE KEEP OFF THE GRASS.

This shows that the moose is a humorist.

Near Pea Cove I saw a strange sight. A farmer was rowing around his cranberry occhard in a skiff. I stood upon a stone wall and watched him for some time, because I am greatly interested in farming and dearly love to watch any one else who may be engaged in manual labor. It was a long time before I could make out what he was doing. At last, however, I figured it out, and I was very much surprised, indeed, for I had never seen horticulture carried on to that extent, and, as Mr. Sayward would remark, "I thought he was carrying that thing too far." Many will doubt my word, and I would not have believed it myself if anyone else had told me. But the man was actually picking cranberries out of his submerged orchard with a stomach-pump. I have one of the cranberries at home now .- Bill Nye, in the Boston Globe.

#### . . . . A Backwoods Banquet.

A backwoods banquet is decribed by a correspondent of The New York Journal of Commerce, who obtained a night's accommodation at a secluded farm-house in New Hampshire: "In the kitchen was a table, covered with a clean white cloth, which was scarcely visible for the multitude of good things on it. Chief in color was a central dish holding at least six quarts of mountain strawberries, tenfold richer in flavor than any cultivated berries, filling the rooms with their fruity odor. Flanking it on one side was a two-quart glass pitcher of cream, so thick that, almost, a spoon would stand up in it; and on the orher side a like pitcher of milk, almost as thick as the cream. There is no milk in the world, except perhaps in the Appenzell, so rich as the malk of Jersey eattle feeding on the highland grass of Northern Vermont and New Hampshire. I pass over the solids which where on the table, but count seven kinds of tine cake, fruit cake, lady cake, frosted pound cake-four other kinds, without counting the doughnuts.

It is estimated that Nebraska has planted and has growing 5:0,001,000 forest trees. This is good for twenty five years' work

## FARM MANAGEMENT.

Sowing Rye for Pasture-Producing Pork at the Least Expense.

Some Reasons Why the Keeping of Sheep is so Unprofitable-Other Topics.

Sow a Field of Rve. Rye is one of the most important crops that can be grown, not only for the value of its grain and straw but on account of the variety of purposes to which it can be applied. The grain is readily salable, and is also fed to horses on some farms, while its straw is considered superior to all other kinds, owing to its length and superior quality, as bedding. It can be conveniently handled, and is clean and free from dust as compared with shorter kinds. Every farmer should sow a field of rye for early pasture. It can be put in the ground in the fall, as it is very hardy and stands the winter in all sections of the country, springing up early in the spring, long before other grasses have begun to start. Farmers who have had difficulty in keeping their stock in healthy condition when fed through a long winter on dry food know how eagerly the early rye is relished. Objections have been made to rye as containing ergot, which is injurious, but all grains and grasses are equally unfortunate in that respect. The difficulty is due more to improper management than to any injurious substance contained in the crop. When stock have been deprived of roots or ensilage, and confined to a dry diet, they are liable to eat too much green rye when turned upon it too early. By allowing the stock but a short period upon the rye field in the beginning, and gradually extending the time daily, but little injury will be done, but if the stock receives no care, and the rye field is given up to the animals, the result will be diarrhea and debility. This may be followed by abortion among the cows due to physical weakness, but which is attributed to ergot. The rethe huckleberry hath her home. But | sult is the same when stock suddenly secures a surfeit of early grass. As ergot seldom exists in young-growing rye, the stock may be pastured upon the field until the period arrives for allowing the crop to attain maturity. If damage is done by ergot it is when stock is kept upon the rye when in its advanced stage.

Rye also makes excellent pasturage in the fall, though it is generally reserved for spring. In addition to its advantages as a cattle food it is an excellent crop for sheep, which may be hurdled upon it with economy if the hurdles are moved daily, as sheep graze very closely. To the poultry man rye is a boon, no other crop supplying its place, and it will do much to prevent hog cholera when the swine are confined upon corp, provided an allowance be moved and fed in connection with the corn. The swine will be more thrifty and fatten more readily with its assistance than when corn

alone is used. If good judgment be exercised in selecting seed free from disease or admixture of weeds, rve is a healthful grass crop. It is best to be suspicious of all grains, as spores may exist among them. They may be easily destroyed by soaking the seed twentyof blue vitriol (sulphate of copper) to four gallons of water. Then mix the seed with dry land plaster, and if intended for pasturage, sow as thickly as the land will bear. The soil should be first gotten into a fine condition, and the seed should be covered

with a harrow. Rve is the clover of poor sandy soils. It thrives and flourishes where other grain crops would perish, but does ed with sheep and have them d hest on good land or such as has been fertilized. If sown in the fall and plowed under in the spring, and a slight application of lime given the soil, it will furnish material for the formation of humus, and will largely increase the yield of a corn crop, which may follow it; but if the soil is poor it is best to plow under the rye and fol- as much prolit as did the whole flock low it with buckwheat or millet, which may in turn be plowed under cheap lands sheep can not be expected before using lime. Rye may then be sowed again, and if plowed under in the spring the land will be greatly increased in fertility. Grazing does not injuro it as a grain crop, but rather benefits it, thus rendering it serviceable both for pasturage and for grain.

Producing Pork.

It has been charged against the hog that he does not pay expenses on some farms. With the cholera devastating the herds in many sections, and the fluctuations in the prices for pork, hog raising has received quite a number of discouraging checks; but in the majority of cases the business has failed from not taking advantage of the opportunities which present themselves on every farm. In the first place, the farmers must sooner or later recognize the fact that good cheap pork can be produced without feeding corn the whole year. The corn crib and the hog pen have been made inseparable. though at the same time there are certain portions of the year when corn is the most inappropriate food that can be allowed.

Examination by experts into the causes of diseases among swine have resulted in attributing such results to the feeding of corn exclusively. The corn itself is not really injurious, but it is a lack of a variety of food that causes the difficulty. Cors is a heating and a fAt-forming food, possessing but little that serves to supply bone and tissue, hence the animal perishes in the midst of plenty, simply because the body can not renew itself. though loaded down with fat. A growing pig is only encumbered when fat, and should be supplied with suitable food for the growth, but also with coarse, bulky substances that serve to distend the stomach, regulate the fowls. bowels and aid digestion.

pasture they thrive and grow rapidly. Disease soldom occurs when they are so kept, and they apparently cause but little expense. But some farmers hogs on the clover, claiming that they do enough damage to more than offmal unless fed in such a manner as to used in the same manner.

utilize that which would be of but little value, in addition to more costly substances. By feeding the sows well when the pigs come in they will provide sufficient nourishment to give the pigs a good start. This is a very important point to observe, as the first six weeks of a pig's existence determines his uselulness in the future. They should never be allowed to miss a meal, and should be pushed forward as rapidly as possible, both by feeding the dam highly and providing them with a variet of food.

If the pasture is too valuable for the pigs the cheapest mode of feeding them is to allow a thin slop three times a day, made of water and shipstuff (middlings). No corn or meal should be used in any form, as growth is the object that should be sought. Between the three meals cut the clover and throw it into the pen for them. And not only clover, but weeds and undesirable grasses. A hog, like a sheep. will consume nearly all plants that come up on the farm, and will thrive well on many kinds that are of no value otherwise. Pursiaine and plantain are delicacies to a hog, and even crap grass is eagerly devoured by him. Cooked food has not been recommend. ed, as it may entail labor, but the roots are excellent. Potatoes, turnips beets, carrots, parsnips and sweet potatoes give large yields, and, with clover and weeds will furnish an excellent variety, enabling the soft mess of shipstuff to be reduced to one a day the evening meal. With a variety of such food the cost of procuring pork will be very little, especially if there is a sufficint number of animals to compel the constant care of one person. When the pigs have become hogs, and their frames are large and ready for receiving the fat, then the corn may be fed and the hogs made ready for the butcher as soon as possible, but even when feeding corn it should be fed in connection with bulky food, and the animals will thrive better and gain more rapidly.

### Keeping Sheep.

Just now when wool is bringing low prices the remark is frequently made 'keeping sheep don't pay." It is believed, however, that sheep properly managed will pay as well as any variety of live stock or any branch of farming. We may, therefore, propery consider the question, how can they be made to pay and why they do not

One reason why sheep do not pay is that they are not kept well enough. There is a greater tendency to overstock with sheep than with any other stock, and in consequence they do not have enough or the right kind of feed. Our common Merinos, which are greatly the majority in numbers, need pasture on dry soil. They do not like rank herbage or wet soils. The latter are absolutely unbealthy for them, and while they may run on them in the early part of the season, they should not be confined to them then, and later in the fall should be absolutely excluded from them. Some of the British breeds will endure wet soils better than the Merino. Second, although Merino sheep will run in large flocks and do well, they will do much better in smaller flocks, and unless the flocks are small and the frequent change of pasture. We think a field divided and the sheep turned in each half alternately for one or two weeks, never allowing the grass to get very rank, will keep more sheep and keep them better than if they were kept in the one large field the whole time, as they frequently are, and yet with frequent change and close attention they can be well stockwell.

Another great point is better sheep. At this time, instead of selling off the whole flock for little or nothing and going out of the business in disgust, select a portion of the best of the flock and dispose of the rest. It may possibly be found that those kept will pay and pay well for keep ng. On many to do their best, but in such cases they are generally the most profitable stock

that can be kept. In England, on their high-priced lands, sheep have been considered as profitable as any class of live stock; and why should they not be? It has been demonstrated that a good class of mutton sheep will grow as much meat on the same food as will cattle, and although mutton does not rule quite as high in price as beef, the wool, even at the present low prices, will more than make the difference in favor of the sheep. This refers to mutton breeds grown exclusively for meat. They can be turned off at an early age and are suited to small farms of rich soil and good care. In such places we believe them profita-But they need a little better feeding and more care than many farmers are accustomed to give to sheep. Of the great mass of sheep on Michigan farms that are of Merino blood and are kept for wool and in the end mutton, they should be bred with reference to size and feed ng quality as well as wool, and turned off to be replaced by younger sheep as soon as they begin to decline or very soon after they reach their best. There is no profit in keeping an old ewe that has lost her teeth, unless she be a wells bred one in a stud flock. But they can be found everywhere and are a source of loss to the flock. What the flocks need is not extermination, but better breeding, more care to growth and health and adaptation of breeds to location and use. In such ways can

sheep be made to pay. Minor Topics.

Young broods should be fed separate from older chickens and adult

A little salt in the soft food given It is generally conceded that when the fowls is acceptable to them. It young pigs have the ren of a clover should not exceed in quantity the amount used in food for the table. Paris green can be used to destroy

nearly all leaf-cating insects which work upon trees before the fruit is half object to turning a large number of ripe. It is the most effective of all remedies against the canker worm. It is also a good remedy for the first set the gain ever the plan of feeding brood of the coddling moth larvæ, or them in confinement. The hog, therefore, may be made an expensive ani- cheaper than Paris green and may be