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CATTLE AND SWINE.


CATTLE.

## SUNNY SLOPE FARM

 che c. s. choss, Emporia, Kas. Wo have ono or the largeat HEREFORD © CATTLE in the Untlea Statees. Write for anything pou want. SHANNON HILU STOCK PARM. Bo. W. OLICK, ATCHESON, KAS:



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## flgricultural Allatters.

## AORE YIELDS AND POPULATION'S

 REQUIREMENTS.The following correspondence beween the Governor of a neighboring State and the farmer statistician, Mr C. Wood Davis, which we are permit-
ted to lay before KANSAS FARMER ted to lay before Kansas Farmer
readers, is both interesting and valureader
C. Wood Davis, Esq., Peotone, Kas

Drar Sir:-I have, for years, read with much interest your statistical writings. I understand you have a series of publica-
tions of this sort. If so, can copies be purchased, and at what price, please?
Just now, I have read in the Kansas Just now, I have read in the KaNsAs
FARMR your letter to a United States Sen.
ator-"Probable Trend of Prices for Corn." I note in this paper your reference to your mode of ascertaining ratios between popuMay I inquire if this you consider a secret
of your own? If not, may I ask, approxiof your own? If not, may I ask, approxi-
mately, what term of years is required to determine these ratios.
But your publications,
yrices, etc. $\begin{gathered}\text { Yurs truly }\end{gathered}$

- December 13, 1895.
DEAR SIR:-Replying to your favor of the 13th inst., I beg leave to say that articles have only been published procurable.
Regarding the method of ascertaining ratios between population, requirements and acreage, would say, that there is no mystery about the matter, it personal property in any sense, although I was doubtless the first, as I productive power and requirements in this manner, or attempting thus to determine the very obvious relations yields and consumers.
Long since, impressed with the in sufficient returns of the farmer, and quacy was due but in slight part to any quacy was due but in slight part to any impelled to enter upon an investigation, hoping to determine the primal caion, hoping to determine the prima the probable duration of its continued operation. With this object in view, data was sought, first in the publications of the federal government, publications of the federal government, but everything bearing upon the subject was found to be of the most fragject was found to be of the most frag
mentary character, and, so far as world mentary character, and, so far as world conditions were concerned, without
either systematic arrangement or continuity, and so they remain to-day, both at home and abroad, each nation seemingly satisfied to tabulate its own acreage and product, with an occasional effort-especially at Washington-to as semble about three-fourths the wheat product of the world and call it the
world's harvest. At the same time world's harvest. At the same time
little or no heed is given to the rye fields although they furnish


## third of all the bread eaten

Groping ineffectively among these fragments, the idea at last presented itself that were it but possible to de termine acre yields from the fields of
the bread-eating world, or from those of any given country, and, as the case might be, the net imports or exports of the territory dealt with, the average annual unit rate of consumption could then be determined with a fair degree of accuracy, and the relation of the acres employed to existing consumers shown, and could data be had for a period of twenty or thirty years the probabilities as to the sufficiency of future supplies and the trend of prices
might be deduced. Such work was unmight be deduced. Such work was un-
dertaken solely for my own information dertaken solely for my own information and guidance, and withouta thought of acter of the facts developed suggested that others might be interested and possibly encouraged by their publicagreat majority require pabulum that accords with theories of their own, and that the most of the writers for the press are never content except when
misrepresenting the views and statements of any one who has the temerity to leave the beaten track.
The period required to determine what are average acre yields should, I believe, be the longest for which reliable.data exists, in order that the vari-
ations due to ever changing climatic conditions may be equilibrated so far
as possible. The necessity for this is shown by the fact that the yields of wheat in the countries inhabited by peoples of European lineage-really twenty-five years have been such as to give an average of 12.8 Winchester bushels an acre, and yet but one crop, in such regions, harvested since 1886 acre, while nearly all 12.8 buse ight have given yields very much in excess. When the consequences of this remarkable succession of great yields are, in the bearings upon prices and the welfare of the cultivators, considered, this is, obviously, a fact of the greatest sigis, obviously, a fact of the greatest sig-
nificance and shows the necessity of long periods to determine a veritable average yield for any given area or for the world as whole. Unfortunately, there are but one or two countries possessed of satisfactory crop data extending back more than twenty-five years, and even in Britain official determinations of the volume of production were not made till 1884. In the United Kingdom, and in several other counKingdom, and in several other coly
tries, we are compelled to rely administrative or commercial estimates in order to go back twenty-five years. in Having, from available data, ascertained, approximately, the acreage and the average acre yield, we have the most important factors. Then by de quirements for seed, the net imports quirements for seed, the net imports the average number of consumers supplied for the term of years selected, we can readily determine the annual average rate of consumption, and the quantity of land, under the particular product dealt with, necessary to mee such unit requirements, or to supply a given population so long as average
rates of yield and consumption shall rates of yield and consumption shall
remain constant.
emain constan
The data collected leads me to beleve that nowhere is there-at least in recent decades-any material increase acre yields resulting from improve modes of culture, as the progressive inclusion in the productive area of acres of lower and lower fertility
quite offsets the increase of yield rom acres longest cultivated. More ver, in most countries any increas hat might have resulted from such mproved processes has been neutralzed, so far as the ratio of productive neress population is concerned by a rom a practically continuous improv ment in the condition of the mass of the population due to the greater purchasing power of the wages received and, in many
For present purposes it may be assumed that, whatever the average rat of acre yield, deducible from data covering a period long enough to equilibrate variations due to changing
meteorological conditions, that it is constant, and that a given acreage must be employed to supply a given number of people, residing in the given region, with required quantities of any one of the primar.
ate zones.
This proposition can best be illustrated by actual conditions. During the decade ending with 1890, France grew, imported and consumed wheat Wh follows:

## Wheat grown. Net imports of <br> wheat.....

## Total sapply

What required for seed....
Wheat available for food

## $\frac{385,224,000}{3,479,524,000}$

## Total consumption.

## $3,479,544,000$

Dividing the wheat harvested from 1881 to 1890, inclusive, by the 172,185,000 acres employed in its growth, the yield is found to have averaged 17.97
Winchester bushels an acre. (With rare exceptions writers for the press use the Imperial and Winchester bushel indiscriminately, although on a world crop the difference is a matter
of some $80,000,000$ bushels). Dividing of some $80,000,000$ bushels). Dividing
the supply available for food during the supply available for food during
the decade among the $380,901,000$ consuming units, each supplied one year, it appears that the average annual unit supply equaled 7.937 bushels. As the seed sown was officially estimated at 2.65 bushels an acre, the net product was 15.32 bushels an acre; hence 0.5181 of an acre of the wheat-bearing lands of
France was employed, during the ninth
decade, in furniehing a quantity of grain equaling average unit requirements.
French wheat fields gave yields dur Ing the seventh decade averaging 16.52 els during the eighth decade, and 19.97 bushels in the ninth, the average falling to 17.86 bushels since 1890 . Evidently, it would be erroneous to assume that the average yield was either of the quantities named, but that the average of 17.08 bushels deduced from the harvests of all the years (thirtyfive) for which official data are avail able, is the one which should be accepted, as there has been but little since 1860 ; certainly no such change as imply an appreciable increase 0 acre yields.
We ought, however, to adopt the latest term of sufficient length-say ten years-to arrive at anything like an approximate measure of present unit requirements, because such reing meteorological conditions, but neasurably are by such economic ones as affect the standard of living; hence he enclosed table is significant, inasnuch as it shows a great and continuous ncrease in annual unit requirement or wheat in France, which has been as ollows:
1880 to 1889
881 to 1880
181

## 1889. 1880. 1880.

This increase of no less than 19.6 per ent. in twenty years is due to that noreasing prosperity of the lower trata of the population which has con inued a process of substituting whea for rye that has been in progress since the revolution of 1789 , and a later subtitution of wheat for buckwheat and ther cheap foods, and in part to the absorption of the greater rye-eat
Alsace and Loraine by Germany.
Having ascertained that the ave ge acre yield from French wheat felds during the last thirty-five years has been 17.08 Winchester bushels, and that present unit requirements are at least 7.937 bushels-exclusive of seedit is easy to ascertain that France requires a supply of wheat, from home and foreign sources, equaling the average net product from 0.5181 of an acre of the wheat-bearing lands of France for every unit of the population.
Possessed, as we apparently are, of fairly reliable agricultural data embracing some 90 per cent. of the grainbearing areas of the countries inhabted by the bread-eating peoples of European lineage, and imports wheat into such countries from other regions (Asia and North Africa) annually averaging no more than the net product from 2,500,000 acres, it is not impracticable, in the manner indicated, to at least approximately measure the bread-eating world's productive power some degree of accuracy what they are likely to be in the nearby years. Such a process, however, when applied to worldwide areas involves nearly endless labor and persistent patience in which only those private individuals are likely to undertake who can find are likely to compensation in the significant and far-reaching conditions developed as such work progresses.
There is another an
There is another and analogous method of measuring productive power and requirements, and one involving much less labor. That is, by determining the ratios beweon the phe primary'food staples of the temperthe primary'food staples of the temperlast three decennial periods and now. The results are practically the same as those by the longer method already described, if we assume acre yields and
unit requirements to be constant over considerable periods. While average acre yield vary because of varying cli matic conditions that are equilibrated only by long terms of years, unit re the standard of living; hence the de terminations by this less laborious pro know, from the prices then obtaining that from 1865 to 1875 there was neithe a great overahundance nor any mate ood staples, and therefore the

## THE OLDEST

 AND THE BESTCough-cure, the most prompt and effective remedy for diseases of the throat and lungs, is Ayer's Cherry Pectoral. As an emergency medicine, for the cure of Croup, Sore Throat, Lung Fever and
Whooping Cough, AYER'S
Cherry Pectoral cannot be equaled. E. M. Brawley,
D. D., Dis. Sec. of the American Baptist Publishing Society, Petersburg, Va., endorses it, as a cure for violent colds, bronchitis, etc. .Dr. Brawley also adds: To all ministers suffering from throat troubles, I recommend

## AYER'S

Cherry Pectoral
AYER'S PILLS Cure Liver and Stomach Troubles
between productive acres and consumptive requirements were very evenly balanced. Yet were such acres now in the same ratio to the populsries thuropean lineage, in the the acreage omployed in growing wheat, rye, spelt, maslin, barley, oats, buckwheat and potatoes would be quite $90,000,000$ acres more than it is. This discrepancy would not be explained by the shorter process, because the variations in yield due to changing meteordeveloped conditions would not be consumption due to more favorable economic conditions. During the last ine years so exceptionally favorable have been climatic conditions over worldwide areas as to give harvests of grain and potatoes averaging, in acre yields, more than 7 per cent. in excess of the average for the twenty-five ears ending with 1895. This remarkand grest yion of favorable seasons tive acreage and wholly neutralized ita effect both upon supply and prices. Still, this defect of $90,000,000$ acres, or 15 per cent., in the productive power, relatively to the consuming element and as measured by the ratio of 1870 , must make itself apparent in a most btartling manner whenever there shall cession giving no more than average yields. In other words, only a succession of world crops (nine) giving yields above the average have sufficed to meet requirements that have increased nearly eight times as fast, since 1884, as the power to produce the primary food staples named. This great disparity would have long since been manifest but for such a succession of favorable seasons as had not been known for at least one hundred years. But for this succession of great world crops I believe prices would now be satisfactory to the cultivator.
The work I have done has resulted in the accumulation of a great mass of data, and the inclusion of much of it in many tables (similar to that enclosed), showing the acreage under staples, the product, and the net imports or ex ports of a majority of the countries nhabited by the bread-eaters, each product in each country being deal with separately and then all combined, and the whole world dealt with in the same way, so far as data exists. Thi work, however, is far from completion
such matter as holding out little prom ise of such a demand as shall ren Yours very truly
C. WOOD Dav

Peotone, Kas., December, 1895.

## Kaffir Oorn Experience.

Editor Kansas Farmer:-In reply to several inquiries, the Red Kaffir planter; six inches apart in rows is planter; six inches apart in rows is
about right to drill. Cut with a McCormick corn binder, which binds in Cormick corn binder, which inshocks bundles with twine. Shockedinshocks of twelve or more bundes, bound
around top of shock with twine. When cured, stacked with butts of bundles cured, stacked with butts of bundles
outward, to protect from ravages of outward, to protect from ravages of birds. Threshed through a separator with concaves out, but an old Pennsyl-
vania "chaff piler" or a separator with vania "chaff piler" or a separator with
the separator attachment taken off would be more suitable. After running through the machine the resulting fodder is the best roughness in the world. A "sled" cutter costing a few dollars, or that farmers make themselves, will answer the purpose for cut-
ting, but I would still tie in bundles by hand and shock in order to cure thoroughly and save time in handling. Rye straw threshed with a flail is better than twine for binding by hand if you
can get it. JNO. H. WURTZ. can get it.

## The Stock Jnterest.

## The Oorn Ration. <br> R. S. T. Hutchinson, Kas.-Please tell me your opinion as to relative value of corn gether for and oblige. <br> The experiments on record in regard

 to the relative value of corn meal and cob and corn meal are to the effect that these two feeds are very nearly equal. Professor Shelton, of this experiment station, found years ago that he couldget the same result from corn and cob get the same result from corn and cob meal and straight corn meal when fed the extra power required in grinding the cob will pay for the nutrition contained in the cob. On the average, 100 pounds of dry ear corn contain about pounds of corn cob contain 1.6 pounds of digestible protein, 43.9 pounds digestible carbohydrates and .3 pound
of fat. Hence fourteen pounds contain of fat. Hence fourteen pounds contain
.21 pounds of protein, 6.28 pounds of carbohydrates, while the amount of fat is too small to take it into consideration. If we estimate the protein to be worth 3 cents a pound and the carbohydrates
.9 of a cent a pound, which is rather .9 of a cent a pound, which is rather
high valuation, we should have as the high valuation, we should have as the
total feeding value of the cobs in 100 pounds of ear corn, 6.25 cents at the outside. Now can the cob be ground for that price? If so, there may be profit in using corn and cob meal.
There is another consideration, and that is the physical effect which the digestion of the corn meal. This is a factor concerning which we know little or nothing, and it would doubtless vary in value with the individuality of the animal. The fact that there has been no appreciable difference found in the gain of animals fed on corn and cob meal and clear corn meal, respectively, is doubtless partly due to the small amount of cob which the former con-
tains. The amount of nutrition shown above to be contained in fourteen pounds of cob could not make any marked difference in the gain. The
difference in nutritive value of 100 pounds of corn meal and 100 pounds of 6.4 pounds carbohydrates ands 1.3 prounds fat, $i$. e., the former contains this much more nutrition than the latter, but this difference is so small as to hardly be perceptible in the gains under the
most careful feeding. Slight differences in the individuality of the animals fed would readily account for differences in gain.
In short, I would not grind the cob unless the cost of the additional power required to do so is very trifling. Agricultural college, Manhattan.

## Sutton's Sermon to Breeders.

 In view of the annual meeting of the Kansas Improved Stock Breeders' Association, in Topeka, this week, wemake a few extracts from the annual make a few extracts from the annual
address of ex-President $W \mathrm{~m}$. B. Sutaddress of ex-President Wm . B. Sut-
ton, of Russell, Kas., made one year ago, that are still pertinent:
"I believe this association has, or should have, large enough scope to extend its influence and assistance to
all classes. The Dairy Association of all classes. The Dairy Association of the State, at a recent meeting, appealed to our law-making power for relief from this unnatural and unfair competition, and I heartily recommend that you add your petition in their behalf. I am not prepared to call butterine a fraud per se, or to say that its production is not legitimate. On the and to an uncultivated taste fairly palatable, and to the poor who cannot afford the price of good butter it may be a blessing, but it is a notorious fact that all over the State of Kansas it is sold as butter. In that much it is a fraud, and should be regulated by law "The trary, has materially advanced; the demand has enlarged. Wool has commanded a satisfactory price, and mutton at times has been almost out of reach of product. In this instance the limid We cannot nearly supply the demands of our own country for either wool or good mutton. Touching at once the goint I desire to make, I call again for help from all classes of breeders and all who have the material interest of the State of Kansas at heart. (I beg of me now, but hear me through.) Many me now, but hour resolved and reresolved that this great industry must be protected, but the wind is not tempered to the shorn lamb-the dog barks uncared -the wolf howls his defiance and the coyote moans not at its own funeral Somebody must bear the ridicule of his called s dog-catcher. We want the dogs taxed to create a fund to pay for he sheep the dogs destroy, and possibly to pay for the wolf scalps.
'If farmers' organizations
'If farmers' organizations have accomplished any lasting good, or shall have achieved that which will live
after them, it is in the education of the people, in their formation of habits of thought, and with it self-reliance, or putting it into homely phrase,
'thinking for themselves.' thinking for themselves.
"My great desire is that this association shall prosper. That it shall en-
roll on its membership roster every roll on its membership roster every
wide-awake farmer and every breeder wide-awake farmer and every breeder
of improved stock in the State; that the association shall become potent not only for the education of themselves, but for the enforcement of reforms upon the State looking to the betterment of agricultural conditions. To accomplish this there must be a radical change from the apathy heretoSecretary cannot command their presence. For the past year there has been but a very small percentage of the bers. I would rather not say how few for fear it might be published. I am willing to try to do my share, but I ship. Nothing can run without money. Even the churches, in order to have something religious going on, pass have a the hat. This associalion more money, or we may. as well hang up the shovel and the hoe. We have several During the year it occurred to me that organizations into consolidate these grand, successful whole, with a large annual meeting, with time allotted to each interest. Consolidation is the order of the day. Weare being taught day of the 365 . In pursuance of this plan I wrote the Presidents of some o general favor, and I belue the plan. I think while our State is young, and until the various branches of our stock interests become large enough to stand the onsfully alone, that it will bo
belleve in it, I trust you will take active steps to bring it about.
"It has been thought by some that it would be well to hold our meeting at different points in the State, and to year; but my conviction is that it would be unwise to undertake more than one meeting annually, at least for a year or two, until our membership shall have largely increased. The loss of time and expense of attending more than one meeting is more than some of our members feel inclined to incur, and it is a matter we cannot lose sight of. But there is not a breeder of stock in the State but should tack this motto on attend each year, though it cost you a pig, a sheep or a steer.'

## No Oorn Stalk Disease.

Editor Kansas Farmer:-I have paper concerning the solleged corn stalk disease. There is no such thing. I desire to say to your correspondent, Mr. J. M. Smith, of Globe, Kas., what killed his cattle. In the first place, he turned them in the stalk field all day, although he says he gave them plenty of water and salt. What he had to say was of no special value to the farmers. desire to reiterate the fact that there We have had some experience with eattle and never lost any by turning them in the stalk field. We left all of the rotten corn in the field and did not pretend to collet it when we gathered he corn. In the beginning we turned he cattle out only sbout ten minutes a time, then took them to water and loft them seversl hours and then turned them out a ain and so on until thrned them out again, and so on until in this way you can be sure that you will not lose any cattle. We have always followed this plan and never lost any. We have recommended it to others, and while they had lost cattle method. Try it and be convinced.
We all know that cattle never go to water, when once turned in, because they are so ravenous for the corn and
stalks at first; later they seek the wastalks at first; later they seek the wa-
ter, but too late. The results are very ter, but too late. The results are very
similar to cattle when first turned on wet clover. They must first get accustomed to the change of feed, and then you need never lose any stock.
Herington, Kas. J. T. SHUMP.

## Berkshire Qualities.

Extracts from the Berkshire Year Book:

For the purpose of improving the common swine of the country, no other with greater certainty of good results than the Berkshire. Having descended from so long a line of pure-bred ances tors, he possesses in an unrivaled de gree the power to stamp upon his
progeny his own excellence of form and feeding capacity, as well as vigor of constitution, which includes the ability to resist encroachments of disease. Hence he is in almost constant
use for the improvement of common use for the improvement of common
hogs. The improved Berkshires of the present day are a well-defined breed possessing in an eminent degree defi nite and valuable qualities and may be described as follows: Body color black with smooth, pliable, plum-colored skin; hair rather fine, soft and thick feet and tip of tail white, with dash of white on face, and not unfrequently the nose white, as also some white on jowl; forehead and face broad, the latter dished, with eyes rather large of medium size, thin and very soft and carried rather upright; neek short broad on top, with jowl large and full shoulders broad on top and deep through the chest; back broad, sides deep and nearly straight on bottom line; hams large, reaching well forward on back and down on hock, we legs to stand well apart; these, as well as the fore legs, short and strong, and standing well on toes; tail tapering and rather fine and set well up. In regard to form, a modern, well bre
Berkshire in good condition is sym metrical throughout, attractive in ap-

My Back
Arms and limbs are stiff and lame and it
is misery for me to move. This is rheuis misery for me to move. This is rheu matism, caused by lactic acid in the blood
Neutralize this acid, purify the blood and cure rheumatism by taking the one "I
rilla
great reat help to me. I have been sufferin hhoulder, which was rendered entirel helpless. Ing Amod's Sarsaparilla." MRs
Bince taking Ho
C. E, SAX, Box 414, Junction City, Kansas Hood's

Sarsaparilla
Hoods Pills cure all Liver Ills. 25 cents. pearance and recognized at once as an animal of more than ordinary worth.
W. E. Spicer, of Harvard, Neb., is not only a good breeder of Berkshires of extra quality, but a very successful breeder of fat barrows for the market. Mr. Spicer gives the following data in reference to a feeding experiment with the Berkshire sow named Number Seven 11055, of the well-known Romford family. He writes: 'She had been fed and shown at the fall fairs of that year (1888). On October 7 she was weighed about 4 p . m., after having all the soaked shelled corn she would eat at noon, weighing 632 pounds. She was then put in a small, open shed and fed corn meal soaked in water from one feed to the next, generally using the dibhwater from the house. She was fed three times per day all she would eat. She had a feed of pumpkins two or three times that week. She was fed at noon on October 14, and about 4 p . m. that day she was taken out of the shed and weighed 678 pounds -gained forty-six pounds in seven days. The feed she ate was not weighed, but she had been fed from one barrel. I weighed the barrel and what was in it and then filled it as near as could like it was before. I then weighed it and found I had put in ninety pounds of meal. In the fall of 1890 I fed Romford II. 15791 (American Berkshire Record). In this test I wished to see how many pounds of corn meal were required to produce a pound of gain, so the sow was carefully, prepared and placed on full feed, the weighing being done in the evening each time just bewould eat at noon each time before being weighed. She was kept in a yard thirty-two feet square, with a yard thirty-two house in it. On September 30 she weighed 491 pounds, and on Octogained thirty-four pounds in $s \in v \in n$ days. She ate ninaty-seven pounds of corn meal and matter. The meal was soaked six hours.'
Take advice! Stop coughing at once by the immediate use of Dr. Bull
Syrup. One bottle will cure you.

A Oorn Oontest.
This paper circulates in the best cornproducing section of the country, and there
are few of our subscribers who are not corn-growers. Every practical corn-grower should take pride in having the best corn and the largest crop, and we notice that will year there is to be a contest as to who will produce of land. The contest is corn to all competitors in any part of North America, and it is being so extensively advertised that it is attracting great attention and assuming national importance. We would feel gratifled if one of our subscribers should win the prize as the best corn-grower in America (that would mean in the world) and therefore we take pleasure in calling The prizes amount to a total of $\$ 500$, in addition to which the value of the corn grown, as seed corn, would be no small sum, and the reputation of having won this prize would be worth more to any man than the best forty-acre farm in the State. Full particulars in regard to this contest can be obtained from the Lowa seed Co., Des tifully illustrated catalogue of all the best varieties of seed corn and other kinds of farm and garden seeds. These catalogues will be mailed free, provided you mention this psper.

## Irrigation.

## Sabsoiling Saves the Water.

 Editor Kansas Farmer:-Last spring my wife, who superintends our had Red Rock valley land broken by had Red Rock valley land broken by the subsoiler, sixteen inches deep, and then had the land cross-broken by thesame implement. Apparently the same implement. Apparently the ground contained of Aprst nine days of April, and in the the first nine days had alfalfa seed sown by hand. dust she had alfalfa seed sown by hand. Rain came on the intervals thereafter throughout the lar intervals thereaiter thiongometimes
season. The precipitation someter season. The precipicasion sut no matter
measured several inches, but no how great the downpour became the water did not run off or stand on the surface to be licked up by Texas winds. It quickly disappeared in the deeply pulverized alluvial soil as it gravitated toward a lower level. Every alfalfa seed seemed proud of its location in the wake of the subsoiler and vied with, its neighbor in spreading aloft the prettiest and largest banne of green. The ground was soon cor ered with alfalfa plants remarkably free from the presence of dodaer or other extraneous soil productions, and my wife had two crops cut from this year's seeding. I spent the month of August on the farm and saw the second crop grow. The sight of that alfalfa on land where blue-stem grass six feet high had possession prior to the 16th of September, 1893, was a powerful cerebro-spinal stimulant, and it was also good for my soul.
On land adjoining the alfalfa, the soil of which was of the same quality and structure, but had only been stirred to the orthodox depth of a few inches, water stood in places two or three days.
I have great admiration for and confidence in that rich, mellow, virgin soil, and I believe that I give it full credit, but with present impressions I
would not for any reasonable monetary would not for any reasonable monetary consideration do without the "Re-
deemer" with a big $R$, the subsoil deemer" with a big $R$, the subsoil plow, on Prospect farm.
Western Shoshone Agency, White Rock, Nev.

## Sub-Irrigation.

Editor Kansas Farmer:-Dr. Hudson's dissertations on this subject are deeply instructive to all your readers suppose that the tile he mentions is an suppose that the tie he menionsis an let me tell them something of my personal observation.
Mr. F., a railroad employe, has a farm-if Eastern people won't take offense at the term-near the Colorado tate lie. Hall wind engine raix fee deep. A small wind engine raises the water. His garden is on sloping ground -say eighteen inches to one hundred eet. Althe rot in ug a Aume, eighteen wo his doep the his garden, this fume being, o course, at right angles to the slope o he ground and the length of his gar den. Down the slope, at intervals on four feet, leading out of this flume, urrows were plowed as deep as phas ticable and then deepened by digging to twenty inches or two feet, the boitom of each ditch being finished in -shape. In these s were laid on sorghum stalks from the feeding yard. The ditches were then filled and the ground leveled, and the garden planted. This was four years ago, one of our "dry years"-I might say the dryest. This was an experiment, but upon perfectly logical deductions, and the results were astounding. (This is the only word that expresses the sensation of all witnesses.)
At the lower end of these $V$-shaped sub-ditches he had fruit trees planted, and while neighboring trees of greater age died, his grew as luxuriantly as could possibly be desired.
The next year he had other subditches made from the same headflume, between the first ditches, and at the bottom of each was placed a wooden gutter made of three common pine
fencing boards, six inches wide, the one forming the top of the V being
loosely nailed to allow free escape of the water. That year was also a dry one, but the results were, if possible, better than those of the previous year, especially from the fruit trees. These especially from gutters are good yet and may be for several years longer. When they become useless they will be renewed or permanent arrangements will be made and areas extended.
Moral: Don't sit down and sigh for the unattainable but reach out for whatever is in sight and use it to the best of your enlightened judgment.
Spearville, Kas., January 1, 1896. ${ }^{\text {J. }}$
Much Water From "Points."
Editor Kansas Farmer:-You are interested in my work of putting in points and taking water from them in large quantities with centrifugal pumps.
Thave been successful in thio work, in different localities. At the Soldier's Home, at Fort Dodge, Kas., last June, 1 put in two points of thirty feet each, of six-inch pipe, and secured 650 gallons per minute, from each point. For different men I have put in points, here in Sterling-T. H. Brown, R. J Shay, W. B. Graham, Rev. Allin and Wm. Groendyke.
On the 30th of November I tested Mr. Groendyke's point, with a pump having a capacity of 1,850 gallons per minute. We estimated the discharge of water to be 1,000 gallons per minute,
and would hold out at that rate. This and would hold out at that rate. This point is twenty-four feet from surface and six-inch pipo, eight feet of perforation. This point is the most remarkable for quantity of all I have put down. I shall be glad to give you any further information you may desire on th. Sterling, Kas.

A New Era in Irrigation by Pumping Plants.
On a recent trip to Lindsay, Tulare county, California, the writer saw three citrus groves that had been irrigated during the season of 1895 by engines sing crude oil. All are looking well nd in each the water must not less than fifty feet. Mr. Seybolt
uses a lift pump with three chambers, ses a hit pump wieds less power but whioh he think nore repairs than tor is in common use for such work, the lubricating cup to be filled every hour or two, and occasionally the spring must be adjusted that regulates the electric spark, for the explosive prinThe of the gasoline engine is used. the water is pumpe up roir eight ceet (at night) into a reservor olghle eet in diameter and four and one-hain for irrigating during the day. When or irrigating during the damp first starts it throws about eighteen miner's inches of water, but soon falls back to the amount which the vein or well can supply, twelve inches. Now the engine and pump seem to work as wethey only threw twelve, which shows that the well is the weakest link in the chain of conditions affecting this irrigating plant. A tank of 105 gallons crude oil lasts 140 to 144 hours, and the expense account stands thus: Sixteen tanks crude kerosene oil (each containing 105 gallons) at $\$ 8.50, \$ 136$; deduct sixty ight cans (five gallons each) of filtered arippings sold to harvesters, at 81 , 368; net cost of fuel for raising water seventy-six feet to irrigate 135 acres five times, 868 .
One acre mure would make the cost of pumping exactly 50 cents per acre,
or 10 cents for each irrigation, or $10-76$ or 10 cents for each irrigation, or 10-7 raised to irrigate one acre. Last year Mr. Seybolt used wood to supply a boiler and pumped with a pulsometer at a cost for fuel and fireman of over
$\$ 800$, or about $\$ 6$ per acre, showing oil to be incomparably cheaper.
The cost of installing these pumping plants varies from $\$ 5$ to $\$ 10$ per acre for each twenty feet the water must be raised. The cost of irrigation district systems, by which water is supplied in ditches by gravity, has been reported all the way from $\$ 2.50$ to more than $\$ 80$ per acre, and some systems in Italy run
as high as $\$ 200$ per acre. And the 50
cent per acre per year which Mr. Seybolt's outfit required for fuel, would be for maintenance and repairs on a gravity system. Not every one has done as well, but it does seem as though pumping plants opened up a new era in irrigation.-F. S. Chapin, in American Agriculturist.

## A Splendid Business Offor.

 The Farmbr takes pleasure in calling the attention of its readers to Perine's subsoilplows. That subsolling is no longer an experiment has been satisfactorily proven and demonstrated. Mr. A. B. Perine, of this city, is the inventor, manufacturer and pat entee of the original Perine's subsoil plow.
No higher compliment could be attributed No higher compliment could be attributed to the popularity of the plow, than the fact
that other plow companies are trying to profit from its success, by attempting to imitate Mr. Perine's invention. During the months of February, March and Ap supply the demand for his plows, and presen ndications are that he will experience an ther rush this season. He has enlarged his plant and secured additional machinery. But as a special inducement for early order dither the KANSAB FARMER or Topeka Advocate to those who will purchase a plow before February 15, 1896.
The prices of the genuine Perine subsoil lows are as follows
No. 1 plow, for four horses
No. 2 plow, for three horse
Address all communic
emittances payable to
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Works,
Topeka, Kas.
The Wooden Hen.


It is not a toy but an up-to-date modern necessity, properly vouched for by all engaged in the great poultry industry of Kan of poultry-raising. It has made a business pening and a source of steady income for "wooden hen" will hatch ducks, geese and turkeys as woll as chickens. It is so simple that, any boy or girl can run it successfully the year round. It weighs fifteen pounds, size 10x $15 x 8$, capacity twenty-eight
eggs, price only 85 . Address Geo. H. Stahl, manufacturer, Quincy, Ill.

A Look Through South Missouri for Four Oents.
The Kansas City, Fort Scott \& Memphis Railroad Company has just issued a magnificent book of sixty or more photo-engraved views of varied scenery in south
Missouri. From these views an accurate Missouri. From these views an accurate ductions and general topography of that highly-fanored section that is now attractng the attention of home-seekers and in vestrors the country over. "Snap Shots in
The title of the book is South Missouri." It will be mailed upon South Missourl." 4 wils be mailed
receipt of postage, 4 cents. Address J. E. Lockwood,
Kansas City, Mo.

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## The Apiary.

## 

## "Well-Trained Bees."

Editor Kansas Farmer:-Under the above caption, an article from the St. Louis Republic is published in your issue of December 18. Please permit me to state that to accept some parte of said article as true, would be to accept what is not a fact, for there is,
perhaps, not one living thing in the perhaps, not one living thing in the
entire animal kingdom whose habits entire animal kingdom whose habits
are more unalterably fixed than those of the honey bee.
To begin with, the writer shows that he is not weli informed in regard to bees. He uses the following language in speaking of the habits of the bee: "He will mount in the air and fly in a straight line for his hive." The honey bee proper is not a male at all, but is an imperfectly-developed female. The queen is the only perfectly developed female in the hive, and is the mother of the whole colony. But further, the general course of the bee, when going to or from the hive, is straight, but its
method of navigating the air is from right to left, or what may properly be called a zigzag course. In regard to their economizing space in the construction of their comb, his statement is correct, but he should have gone a measurements are as precise as that of the finest and most skilled mechanic, as the worker cells measure just onefifth of an inch, or that there are alcomb we find just four cells to the inch.
In speaking of their training, he states that in 1831, a man named Wildman trained a troupe, and exhibited them for the recreation of the public, and that he got swis of bees so well trained maneuvers with as much precision and unity as troops of solders tactics. Wildman would appear, he says, before the audience with bees swarming all over him. All at once he would whistle and, presto, the bees hives, and when they got well settled hives, and when they got well settled there, he would whistle again, and back they flew and settled on his face and hands and clothes once more. This, he says was done with the greatest promptness and regularity. That Wildman could and probably did appear with bees clustered about his person, is, no doubt, true, as he or any other person could cage a queen bee and put the cage on any part of the
body, and the workers would cluster body, and the workers would cluster
on and about the cage, and the person on and about the cage, and the person
bearing the cage can then go any where and the bees will stay with him; and if they have been well fed just before capturing and caging their queen, they will not sting unless they are hurt. For when full of liquid sweets, the honey bee acts solely on the defensive, and not on the offensive. But Mr.
Wildman or any one else might whistle Wildman or any one else might whistle
until the crack of doom, and the bees until the crack of doom, and the bees
would not leave him and go to their would not leave him and go to their hive as long as he heldereir queen
captive. This is all there is to this training of honey bees. The balance is simply "Sinbad the Sailor" romance. But the writer further states that, whether they had been despoiled of their stings or not, is not stated. Had he been well informed he would have known that when a honey bee loses its sting it lives but a short time.
As to training fleas to perform certain operations, $I$ am convinced that if a large audience could see them perform the antics many have felt them perform, it would be highly amusing to them, and I appreh snd that to bring their natural tricks out where they can be seen is about the
size of their training.
G. BoHRER. size of their training.

Chase, Kas.

## The Use of Foundation.

The amount of foundation comb necessary to accommodate a swarm of bees will enst something less than one dol-
lar. During the honey flow, when it is lar. During the honey flow, when it is
used, a colony of bees will, with its use used, a colony of bees will, with its use, and honey in five or six days. Writh-
out its use, it will take them fourteen or filteen days. In the difference of seven or eight days, a colony under the same conditions will store nearly one hundred pounds of surplus honey,
worth from $\$ 10$ to $\$ 15$; and not only worth from $\$ 10$ to $\$ 15$; and not only this, but by its use we have perfect combs of worker comb, and without its use we have, as a general thing, imperfect combs and a large amount of drone comb, which every apiarist knows is not desirable. In many seasons the heaviest flow of honey lasts but a short time, perhaps ten days or two weeks. Hence, you see, that in a season of thi sind it would take a colony hived on mpty frames during the entire honey low to build up and make a full colony without getting anything done in the surplus line. Foundation comb is one of the best investments the bee-keeper can make.

## Gossip About Stook,

D. P. Norton, Short-horn breeder, Counumn" is a hummer, and he has inquiries fcr car lots of bulls, as well as single orders. and if one in ten buy who talk about it, if cattle we a buil famine of the right sort. would have less cause for the chronic com plaints of recent years.
O. P. Updegraff, of Rlverside stock farm, Topeka. Kas., has made the following reCrimm. Kas ors City, bira gilts and the yearling boar Riverside Hone. by the imported boar Warrick Hope; o J. F. Roe, of Vinland, Kas., a fine young boar by Riverside Model, a son of Longfellow Model. Mower Bros, of List Springs. Kas., were looking over the youngsters and by Bismarck III, bred to a son of the git ported boar Western Prince and a spring boar pig by Riverside Model. Mr. Upde. graff also sold to W. S. Crouch. Maple Hill, Kas., a Poland-China boar by Upward, son of Onward. To R. H. Town, Valencia, Kas., Berkshite boar by Riverside Model. To Henry Jannke, of Leonardville. Kas., a boar by the same sire. To J. D. Haldeman, wo young gilts bred to sons of imported his fall, there are yet in this herd a grand ot of boars and gilts ready for market at easonable prices.
1H. L. Leibfried, manager Sunny Slope rarm, Emporia, Kas., reports: "We sola Adair ranch, in Texas, purchased by their manager, Mr. Walsh. We sold five more head to go to a ranch in Texas. We sold
two calves to Jacobs Bros., of Neosho Rap. ds, Kas to Jacobs Bros., of Neosho Rapsired by Arch V.; price $\$ 325$. Sold to $T$ W. Marshall, of Ulysses. Kas., a bull calf sired by Arch V., for 8150 . He is intending ing nothing but the best. Also to Mr. Geo. Channon, of Hope, Kas., three fine Hadley Jr. glits, flve J. H. Sanders Jr. gilts, one Lonqfellow sow bred to J. H. Sanders Jr.
W. H. Wren, Marion, Kas., a Hadley Jr W. H. Wren, Marion, Kas., a Hadley Jr.
and boar pig. Three very fine d. H. Sanders
Jr. gilts, dam Golden Bar 2 d , a full sister to the sow that farrowed King Hadley and Samboline, the two sensational pigs this year; also one of our show sows. Miss Burk City, Iowa, a Hadley Jr. boar pig. We exported four pigs to Juan Castillon, in
Mexico. We are having an extra good Mexico. We are having an extra good
trade and will, no doubt, sell out our large trade and will, no doubt, sell out our large crop of pigs. Our pigs have given good
satisfaction. We have an extra fine lot of gilts and several flne boars by Hadley Jr. Channon a fine Hadley Jr. boar pig,"
"The mud was a foot deep and the water reached the skies," writes T. A. Hubbard of Rome, Kas. Consequently his sale was mark further: "I am now prepared to fll most any order from a pig to a car-load o breeders of as fine breeding as can be found in the United States, with growth, style and finish, and they are in the pink of condition, healthy and hearty. Having kept my hogs on alralifa, ship and bran largely for two years, they are in excellent condition to breed. My Poland-China herd is composed of several Iam using two grand young Tecumseh boars, assisted by three others, while Jumbo 11803, a royal-bred fellow, heads the aged herd. He was sired by the following great boars: Avalanche F. 11544, he by Avalanche 7765 by Black U 85, and running back to Moorish Maid on the dam's side, etc. My Large English Berkshires are called real good, havil g used three of Gentry's males, and my her
is composed of as good blood as I can find and individual merit Am using five males on them. The sale betng called off on 5 c public some plums of elther to furnish th Pemale, at reduced prices. I never had
better lot of gilts and young sows, also ome show boars, for saie, and they are red and will make any man money. Now good thoroughbred sows will stock your farm."

## Publishers' Paragraphs.

If you want to get prices on furs write to John Petrzillek, 828 Kansas avenue, Topeka, Kas. He is a practical furrier and manu-
facturer and his quotations are at full values.
Mrs. L. Hudnut, of South Bend, Ind., is naking a liberal offer to ladies afflicted with ny form of female disease. Any one inerested in a remedy of the kind described in her advertisement in this number will
proft by sending to her for a free package proft by sending to hes
Sweet Peas for the Million.-W. At ee Burpee \& Co., seed growers, Philadelphia, are sending out a 25 -cent coliection,
containing seven superb new varieties This is a great offer that our readers who desire to adorn and beautify their homes should surely have at once.
The Iowa Seed Co., Des Moines. Iowa, during summer.and autumn. In goink over of value regarding any plant of interest to farmers and gardeners. All these facts are embodied in their annual catalogue, which they will send free on application.
A qenuine meerschaum pipe, with amber
mouthpiece, which will color beautifully and which has never before been sold for much less than 8150 . It is a full-size pipe and is sent postpaid for 50 cents by B. F.
Kirtland, 47 Randolph street, Chicaro. This party is well known br the FABMER as the head of a reliable concern.
The Successful Incubstor, manufactured by the Des Moines Incubator Co., of Des the leading incubators of the country at the Kansas City show, recently, won first hon ors. This is. indeed. a very great victory for the Successful Incubator. and it looks very much as if some close competition for honors will be the result of the exhibits at the shows that are to be he'd at other
places. The Des Moines Incubator Complaces. The Des Moines incubator Com-
pany have recently issued their annual book-a complete treatise on poultry which will be sent to any one for 10 cents in stamps.
Rheumatism positively cured by Kidney kura. We guarantee it. See advertisement.

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## The £ome Circle.

##  

## LOVE AND POVERTY.

It happened very lately,
In a mansiontal and stately,
That a darling little Capid came and took up his abode; his foot steps' patter,
Allday long hang
Ringing laugh and merry Ainging langh and merry phatter,
Floated to my tiny cottage, for Ilived across the
road. But, alas, one sunny morning,
Without note or word of warnin I ва wreeping to that mansion a most unwel-
omem guesti.
Her face a horrid vision. come guest;
Her face h horrid vision,
Her laugh one of deribion,
from head to foot in garm
tattered she weas dreseed.
An

 hollow che ks
But K I watch. her shiver
And gaw her pale lips quiver,
Bnd saw her pale lipa quiver,
I said, "Her name is Poverty, a shelter there
she seeks."
Then the prettv little Capid,
Handsome, petted, but so stapi
 dida't care to stay;
So he tiok his golen ringets,
Spread wide his snows winglet
Spread wide his nonow winglets,
And from my lady's winduw flew far, far away.
So the proverb is a true one,
Though not a very new one,
Though not a verry new one,
(I had always thonght that he who penned it
gined, Oh!
For I saw it with mine own eyes
And Itell it to my oronies
And I tell it to my eronies,
"When in the door comes ? Poverty, Love flies out
of the window"

## THE MODEL HUSBAND.

## Surely This Man Knoweth How to Blow

I am a model husband. couldn't lay her hands on another one like me in a fortnight. When the baby cries at night I get up and fix him and put him back to sleep. We have been married three years and we have the sweetest little baby boy in the world. I never cause my wife any trouble. When she is all tired and worn out I just say: "Come, now, old sweetheart, go lie down, and let me finish this job." We have a great number of little dresses for Wendel, and I know where they are kept and how to get at them. . My wife's father is a well-to-do farmer, and I like my wife's mother. I never see any other wan my wife, or who looks just a little sweeter. I wouldn't marry the best woman on earth unless I thought she filled the bill for perfection, from my standpoint of judgment. I thought my wife did, and she does. When she gets a biscuit turned over a few times between her hands and puts it in the pan, I know the biscuits are going to be exactly right. No doubt about it. We have no drip coffee pot, but she makes the blessedest drip coffee you ever saw, and has the commonest kind of an old tin coffee pot. She has a majestic bearing, too. Her feet set just exuctly as a perfect woman's feet set. Her head could be carried no better if she tried for a hundred years.
When I want to find out if anything is right or not, I just get it before her mind and figure on her judgment. She hits it every time. Don't ask me how she does it. There is no spittoon around the house. I know where the peg for my hat is, and every time I take it off in the house I hang it on this peg. My coat has a peg, too, and there my back. There is club on earth like my wife and Wendel. She is the outside guard and the inside guard. She is the light in the east, and the intellect in the west. She is my bright and morning star. She can smell a loose button a hundred yards, and she has a way of noticing the little specks on my coat lapel, as she used to before we were married. She loves me and Wendel. I don't find anybody that and gentle from morning to night. When I want to be cross, she won't let me. When I get cold-hearted and the last speck of brotherly love is oozing out of me, just one touch of her presmy wife is $O$. K. and I am a model hus-band.-Erastus Plokey, in Housekeeper.

Get up a club for the Farmer.

BEAUTY IN THE BUSH.
Australian Types Becoming Famous the World Over.

Giris in the Antipodes Imitate Thely Engllsh Sisters-Art, Literature and by Them.
A good deal has been written about the American girl, the English girl and the girls of other countries; but the Australian girl, up to the present, hashot come is says London Sketch, that haps it is, coming from English stock, she has al British to be dissociated from the Britioh to be dill yo is a daughters of John Bull. Yet she is a distinct species, as different from the averl In prsonal charms she possesses girl. In perstiveness, but, owing largely to the prevalence of sweltering suns ly to the prevalence of sweltering suns and parching hot winds for eight mon that freshness, that pink, rosebud not that freshness, that pince the joy and coloring which are at once the joy and sover
girl.
But it is in the exquisite contour of her figure, in the smalliness of her hands and feet and in the perfect molding of her features that the daughter of the sunny south is able to hold her own. If her face lacks the freshness of the green fields and pastures of England green ields and pasturen of Australia, which pives to the countenance a look of perpetual pleasure. The small but olearly chiseled features of the Australian girl are always pleasant in expres sion, indicsting a light-hearted, caresion, indicating a character underneath.
The innate shyness of the English girl has no place in her temperament, nor does she pay much regard to the culture, the self-contained dignity, the gracefulness which sit so easily on the girls of the west. The unrestrained spirit of an independent democracy seems to be ingrained in her. She is essentially sociable; indeed, the life of the average Australian girl seems to be made up of a round of social func-tions-balls, "at homes," parties. She clevates gossip to a fine art, and in the little world in which she resides she will be possessed of an encyclopedic knowl-

type of australian beauty.
edge of everybody flguring in social circles. She achieves distinction in volubility. "She can talk, but she has no conversation, as Mrs. Allonby remarke. To her, art, and politics are unexplored regions. Dress is the dominant note of her character. And in this, as in almo
thing else, she is little original about the Australian girl. England is her fetich, and particularly the English fashion journals. She will wear cumbersome and trailing skirts under a pitiless sun, and with the thermometer over 100 degrees, if they have been worn in England. And in her afiections she dearly loves an Englishman. She doesn't stop to inquire about his character; if he comes from the old land he has the key of her ficialities, which are uno new country, rough and uncultured, there is much that is good and useful there is much that is good and usefu and practical about the Australian girl. approachable. Hard-working, indus approachable. Hard-working, indusneedle, good-tempered, and, above all generous, the Australian girl makes an ideal wife.
As the artistic and refining influence of the old world. become more and mere

Highest of all in Leavening Power.-Latest U.S. Gov't Report

## Roy Baking royal powder ABSOLDTELY PUEE

ingrained in the people of the vast southern continent, the Australian girl, by her grace and winsomeness, will become a keen tompetitor with her $A$ merican cousin for recognition in the socia spheres of London and Paris.

## SOME FUNNY REPLIES.

## They Were Made to Questio Now York schools.

Fun in a schoolroom is something that most people don't approve of, but that there is a deal of humor afloat dur ing study hours in our public schools no one can de

## ng notes.

Here are some questions that an East side school-teacher asked her scholars, with the answers that she received: "What is love?" "It's going on er rands."
"What is guilt?" "Telling on another boy.'
A poor boy was asked: "What is a gentleman?" "A fellow that has a watch and chain," he replied, adding, when he saw that his answer was not
perfectly satisfactory: "and loves Jeperfectly satisfactory: "and loves Je
sus." evidently thought the latter portion of his answer should atone for any weakness in the former part. A Sunday school child told her day-schoo teacher that "Missionaries are men who get money." "Alias was a good man is a d." "Epicur is a man who likes a good dinner." The oral answers given in classes are often mirth-provoking. The word "lad" occurred in the primary reading. "What is a lad?" inquired the teacher. A very small girl unswered: "A thing for courting with." "Give the future of drink. Present, he drinks; future, he will be drunk." "Compare ill." "Im, worse, dead." "The piural of pillow?" "Bolster." "What are the chief imports of
Canada?" "Emigrants." Did you ever see an elephant's ekin?" "Yes, sir." "Where?" "On the elephant." What is the difference between foot and feet?" "Oue feet is a foot, and a whole lot of foots is a feet."
A young temperance advocate wrote: "Alcoholic beverages greatly obstruct the breaking down of the body," and ke succeeded in saying exactly what he did not mean. The little girl who wrote the following must have associated with very foolish, grasping peo-
ple: "The body is composed chiefly of water, and nearly one-half of it is avaricious tissue." "How many ehildren know who his Satanic majesty is?" said the teacher. Several hands were raised, and the first pupil named promptly replied: "The inspector." "A circle is a round straight line with a products of the United States are earth quakes and volcanoes." "In Austria the principal occupation is gathering Austrich feathers." "Climate lasts all th time and weather only a few days." The two most famous volcanoes o Europe are Sodom and Gomorrah. "John Bunyan lived a life of scantity." What makes the ocean snit?" "Sal fish," answered the reflective boy. What does sea water contain beside sodium chloride?" "Fish, sir," said a boy who trusted more to shrewdnes than to preparation of his lesson.
The same boy, when asked to draw picture of Jonah and the whale drew the whale only. "Where is Jonah?" asked the teacher. "Inside the whale," answered the boy. The teacher point ed to the sun and asked the new boy what it was. "I don't know, sir," he here."-N. Y. Recorder moved aroun
"Old, yet ever new, and simple and beautiful ever," sings the poet, in words which might well apply to Ayer's Sarsaparillahe most efmcient and solefing bumaty fier ever offered to suffering humanity.
Nothing but superior merit keeps it so long Nothing but
at the front.

How to Clean Costly Furs. Ermine and sealskin are best cleaned with soft flannel. Rub the fur delicately against the grain, and when it as been thoroughly lifted and reersed dip the flannel into common lour and rub lightly any spots that ook dark or dirty. Shake the flour well and rub with a clean, dry flannel ntil the flour is all removed. Sable, hinchilla, squirrel and monkey skin may be very nicely cleaned with ho nd heat it in the oren until it is quite nd heat ithe stifly into the fur quid warm. Rub stiffy into hefore shaking leave for a few minutes
to free it from the bran.

> In Pralse of the Onlon.

A medical authority truthfully sounds the praises of onions. They are excellent blood purifiers. Boiled onions used frequently in a family of children will ward of many diseases to which the little ones are subject. As an external application they are successfully used in cases of croup and earache. They are good for the complexion, and a lady who has a wonderfully clear, ane complexion attributes it to eral use of onions as lood. People roubled wirh's rest often if fust sured a good nis they will eat raw beion. When troubled with a hard onion. When troubled with a hard cough, will loosen almostimmediately, pheg then be easily expectorated Farm and Fireside.

FREE TO INVALID LADIES. A lady Who suffered for years with uterlne trou-
bles, displacements, leucorrhoes and other irregularties, finally found a safe and simple home
traetmetmethat completely oured heir without the
ald of medioal attendance. Bhe will send it free



## CATARRH

## $\underset{\substack{\text { EL } \\ \text { the } \\ \text { tion }}}{ }$ the tion fion Bme Bme

## 都

A particle is applied into each nostril and is agree


## W. L. Douglas 

 If you pay $\mathbf{8 4}$ to $\mathbf{8 6}$ for shoes, ex-amine the W . L. Douglas Shoe, and
see what a good shoe you can buy for OVER 100 STYLES AND WIDTHS,


None genuine un the world name and
price is stamped
 TAKE NO SUBSTITUTE, If your dealer
cannot supply you, send to factory, enclosing price and 3 cents
to payy carriage. State kind, style
of toe (cap or pain), size and
width. Our Custom Dept. will fill
your order Send for ne W. L. DOUGLAS, Brockton, Mass. MEW sfritemantel FREE


Che Houng folks.
GRANDMOTHER'S PATCHWORE quILT
A motloy and but mean'ngless,
To jous thing of shreds And potoches bat supeor and quaint


The air grows swoet, as with the breath I Oeem orangeboome to and lol the happy bride I All but hear bridogiogoom goo
 Nor is it only wedding bells
 And hadary aterar a awomb hear

My hand falls tanderly, as on



And grandma telle with trembling lips
How old she'd bo to-day, Her firctithorn- -atty-five-and thinks Wif ohildish haart grown gry th to


And so ohe follows, one by one, $T$ The 1 wed and lost oome baik to her And anct the patochwork maze;


Like storied stonest that go to make Thre names of great men shine That faded bilk coom bine
That humbler livee be not forgot.


$\xrightarrow{\text { quilt. }}$.

A HOG-POWER MINE.
How a Californtan Made His Porkers Earn Thelr Living.
"I was riding through the mountains in Trinity county a few days ago," said n California miner, "when 1 happened to take a trail that led by old 'Burlap' cold corn-bread and bacon-with him, and then sat down for a smoke.
'Wouldn't you jest as soon do your smokin' outside, podner?' he asked.
'Certainly,' said I, 'but you don't object to the smoke of a cigsur, do you? already puffing away at an old corncob pipe.
smoked nirh tor, seein' as I've smoked nigh on to 50 years
to keep my hogs to work
"My curiosity was aroused, but I said nothing. He took down a double-bar reled muzzle-loading shotgun and his powder horn. Then he went out to shed and got a pan of shelled corn
He sat down on a bench at the cabin of powder, and poured a handful of of powder, and poured a handful o corn in each barrel. He put on a percussion cap, pressed it down with the hammer, little gulch.
"Tle gulch.
The roar had not died away till a and squealing came running, grunting the side hill for themmenced to roo they slacked up in their work the old man fired another ther wold "'That's a don't you feed it to them in a trough?'
'Feed it to 'em'' he a amazement. 'Then they wouldn't work Besides, they don't need it.'
'What do jou want to make them work for, and why do you waste corn
n them if they don't need it?'
'Why, man alive, they do as much op the dirt and would! They roo up the dirt, and when the rain comes
"Then I understood the ing the hogs to help him mine"

## Why He Declined the Job.

A man named Simmons is said to have declined to become, the private secreculiar reason. The salary was tempt ing, and the work would have been light and agreeable; but then, as he said, he couldn't bear the thought' of signing letters: "Green, per Simmons."

## UNDER A LION'S PAW.

 How It Feels to Be shaken Like a Rat by a Wha Beask.One of the most famous encounter with a lion, from which the chied actor escaped and was able to relato full particulars, is that recorded in the life of Dr. Livingstone. "I meant," he says, "to have kept it to tell my children in my dotage," but friends considered it so marvelous that he was persuaded to relate it in his first book. The testimony of such a man is far more valuable than accounts of the average sportsman. It is as follows:
"The Bakatla of the village of Ma. botsa were troubled by lions, which leaped into the cattle pens by night and destroyed their cows. They even attacked the herds in open day. This was so unusual an occurrence that the people believed themselves to be be-witched-'given,' as they said, 'into the power of the lions by the neighborhood tribe.' They went once to attack the animals, but being rather cowardly
in comparison with the Bechuanana in comparison with the Bechuanana ing any.
"It is well known that if one in a
troop of lions is killed, the remainder leave that part of the country. The next time, however, the herds were at tacked, I went with the people to en courage them to rid themselves of the annoyance by destroying one of the marauders. We found the animals on a small hill covered with trees. The men formed round it in a circle and gradually closed up as they advanced
Being below on the plain with a native Being below on the plain with a native ne of the ling on a piece o rock within the ring. Mabalwe fire at him and the ball hit the rock on which the animal was sitting. He bit at the spot struck, as a dog does at a stick or stone thrown at him; and then leaping away broke through the circle and escaped unhurt. If the Ba katla had acted according to the custom of the country, they would have speared him in his attempt to get out, but they were afraid to attack him. When the circle was reformed we saw lest we should shoot some of the peo ple. The beasts burst through the line, and, as it was evident the men could not be prevailed on to face their foes, we
bent our footsteps toward the village.

the lion ready for the attack. In going round the end of the hill I saw a lion sitting on a piece of rock bush in front of him. I took a good aim at him through the bush and fired both barrels into it. The men called out: 'He is shot, he is shot!' Others cried: 'He has been shot by another man, too; let us go to him!' I saw the lion's tail erected in anger, and, turning to the people, said: 'Stop a little till I ming down the bullets I heard a shout, and, looking half round, I saw the lion In the act of springing upon me. He caughtme by theshoulder and we both came to the ground together. Growling horribly, he shook me as a terrier dog does a rat. The shock produced a studoes a rimilar to that which seems to be felt by a mouse after the first grip of felt by a mouse after the first grip oi ness, in which there was no sense of pain nor feeling of terror, though 1 was quite conscious of all that was happening. It was like what patients form describe-they see the operation, but do not feel the knife. This placidi-
ty is probably produced in an animals killed by the carnivora; and if so, is lessening the pain of death. As he had one paw on the back of my head, I turned round to relieve myself of the weight, and saw his eyes directed at Mabalwe, who was aiming at him from a distance of ten or fifteen yards. His run, wheh was a flint one, missed fire in both barrels. The animal immediately left me to atteck him and bit his thigh. Another man, whose life I had saved after he had been tossed by a buffalo, attempted to spear the lion pon which he turned from Mabalwe and seized this fresh foe by the shoulder. At that moment the bullets the beast had received took effect and he ell down dead. The whole was the work of a few moments, and must have been his paroxysm of dying rage. In order to take out the charm from him he Bakatle on the following dey made huge bonfire over the carcass, which was declared to be the largest ever een. Besides crunching the bone into plinters, eleven of his teeth hed pene rated the upper part of my arm. The bite of a lion resembles a gunsho ite of a on renerally followed by a round. It gencally fond discharge neat deal ofterward and discharge periodically in the part. I had on a tartan jack which I believed wiped ff the virus from the teeth that pierced the flech for my two companions in he affray have both suffered from the usual pains, while I have escaped with only the inconvenience of a false joint in my limb. The wound of the jai who was bit in the whoulder of the y burst forth afresh on the month of the following year sam curious point deserves the aftention 0 inquirers."

Hercules and the Hawk
Some passengers over one of the Ber in canal bridges the other day noticed the sudden appearance of two black points in the sky at a considerable dis ance away, which developed into two ducks. Behind them, at a lower level, flew another bird, which suddenly rose into the air above the ducks and then shot down upon them like an arrow One of the ducks flew sideways toward the Thiergarten; the other, closely pursued by its enemy, flew slanting into the canal, and, reaching the water exactly behind the bridge, dived, while the hawk, in his blind haste, struck against the head of a statue of Hercules and fell, once more flapping its great wings, dead on the pavement of the bridge. The bird was a splendid specimen, the wings having an expansion of more than three feet.

Origin of the Coffee Plant.
The coffee plant was taken from Sfrica to Persia in 875.

The Grumplty Man.
Fiolghty, toighty, grumpity man!
Finding fault since your life began!
Pity we haven't a comet or two
To carry off passengers such as you!

- Frank H. Sweet, in St. Nicholag.
For rheumatism and neuralgia use Salvation Oil, the greatest cure nn earth for pain. It is an infallible cure. 25 cents.


## Heart Disease Cured

By Dr. Miles' Heart Cure.
Fainting, Weak or Hungry Spells, Irregular or Intermittent Pulse, Fluttering or Pal pitation, Choking Sensation, Shortness of symptoms of a diseased or Weak Heart. .


MRS. N. C. MILLER.
Of Fort Wayne, Ind., writes on Nov. 29, 189: trou was afficted for forty years with heart weabie and suffered untold agony. Fould palpitate so hard, the pain would be so acute and torturing, that I became so weak and nervous I could not sleep. I was treated by several physicians without relier and gave ago I commenced using Dr. Miles' Remedies. One bottle of the Heart Oure stopped all beart troubles and the Restorative Nervine did the rest, and now I sleep soundly and attend to my household and social duties without any trouble.
Sold by druggists. Book sent free. Address Dr. Miles' Remedies Restore Health.

How to Make Money.



TOPEKA, KANSAS.



## Indiana Letter.

February 8th, 1895 .
The Dr. J. H. McLean Medicine Co.,
St. Louis, Mo.
Gentlemen: I feel it my duty to inform you of the great, good have received from Dr. J.
H. McLean's Liver and Kidney Balm. I am sure it saved my life. I suffered for several years with Bright's. Disease, aggravated by gravel in the left kidney. About two years ago the trouble got so bad that I could not
leave my bed; had night sweats, extreme leave my bed; had night sweats, extreme
weakness, chills and my flesh had a blanched look. I did not expect to get well again. Kidney Balm. I used at first two bottles, which helped me so much I could leave the bed and go about my household duties ; so I continued with it. I also began to pass the gravel In all I passed five stones. I am now feeling entirely cured, but still taking the Balm occasionally to make sure. Doctor, 1 am unable to express my gratitude to God for my restoration to health, and I owe it, even my present existence, your Liver and Kidney Balm. It is a grand medicine.

Yours respectfully,
MRS. H. J. D.


KANSAS FARMER.
ESTABLISHED IN 1863.

## Published every Thursday by the <br> KANSAS FARMER COMPANY.

 -SUBSCRIPTION PRICE: ONE DOLLAR A YEAR. of Alix, at extriva oopy fr

FARMER CO.,

## advertibing rates.



The quartar-centennial meeting of in session in Representative hall.

The Nehraska State Board of Agriculture will hold it annual winter meeting, farmers' institute and corn exhy 21, 1896.

A subscriber desires to know. from those who have had experience with crimson clover. how to get a stand at the earliest date. He inquires whether he may row in the spring or must wait until September.
Any subscriber who wishes to club with other papers can save money by sending his list to the Kansas FARMER We have dealers' rates with almos every publication and are willing to
give our subscribers the benefit give our subscribers the benefit
whether the journals they want are in our published clubbing lists or not.

The demand for Kansas Farmer binders has been so great tbat the en tire stock that we had made was exhausted about January 1. As soon as practicable we began making another delay of a day or so in filling orders, we expect to keep abead of the demand from this time forward. The man agement feels greatly complimented scribers to preserve their papers in good form.
The importance of the annual meeting of the State Board of Agriculture, this week, is emphasized by the fact that this is the year for the election of the Secretary. Two years agd Mr. Coburn, who was not a candidate, was elected as a result of a deadiock among several strong aspirants. So satisfactory has been the administration of the office that at this writing there is no suggestion of any competition for the place. This resultt, not from lack of desire for the position with its honors and salary, but from the efficiency
and excellence of the work done by Secretary Coburn.

When expenditures exceed incomeborrow money if you can, but if this state of affairs continues and borrowgests that expenditures be reduced, or bankruptey will result. But thit country now, in a time of profound peace, is to have another issue of
bonds $\$ 100000,000$ this time. It is understood that arrangements were practically completed the syndicate which took the last iseue and made so round a profit on it that But under heavy pressure, which appears to have cume from American
investors, the Secretary of the Treas ury has advertised for proposals, to buy these bonds, the price to be piear gold. They are to be thirty-year
per cent. bonds, payable in "coin, per cent. bondr. payable
which means gold or silver.

## EOONOMIO QUESTIONS.

 EDTros KANsAB FARMER:-Enclosed handyou money order for 81 , subscription for FARMER for 1896. Would at the same time say that I still like your paper, sas one can
gain information from it of value to farm ers information from it of value to farm-
ers, in order to raiso big crops, etc. But
since you have dropped off treating eco since you have dropped off treating eco-
nomic questions, that is, telling us why prices of our products are below cost of
production, and pointing the way of betterproduction, and pointing the way, or better-
png the coaditions of producers, I Io not
like your paper nearly as well, for 1 do hold like your paper rearly as well, for I do hold
that jit behooves arl ot the agricultural and
also the religious papers to toll the people also the religious papers to tell the people
the truth about the existing abnormal con the truth about the existing abnormal con consider that any of those papers failing to
do so is not doing its full duty by its readdo so is not doing its full duty by its read-
ers nor the country generally. It is sup.
posable that the editors know or think they posable that the editors know or think they
know on which side of their bread the butter comes in. JNo. Schw
Kas., Decembei 30, 1895.
We like this letter for its franknes and because it makes a concise state ment of the views of a great many earnest people, both farmers and those engaged in other vocations. The effect of public treatmant of economic ques tions, of legislation upon them and of xrontive action in relation to them arн no far-reaching; they ext-nd theic
influences 80 much into the matters of influences 80 much into the mate prosperity. of persinal gain or lose, that the man who dwells upon and analyzes the subject is liable to con
clude that no other temporal matter is clude that no other temporal matter is
if so much importance. With this conclusion the Kansas Farmer is no dinposed to take issue. All political parties agree to this. and at presey of heir several $p$ sitions as affecting the prosperity of the people.
Our correspondent is right in pre suming that the editor has decided views on the economic situation. He has also decided views on many other matters of importance to the public o which he never writes and on which the FARMER never contains a sentence It is impossible to attend to every mat ter of importance in one paper and to attend to them all with the rhorough eess essential to valuable work. The FARMER does not exclude the scientific discussion of economic questions, but its special purpose to impart information "of value to farmers in order to raise big crops, etc." requires its best efforts and most of its space. Economic fuestions from the political side are ically, discussed in the political papers, of which Kansas has a great abundance without the intrusion of the Kansas Farmer. Their consideration from the scientiflc side engrosses the attenwho desire to keep abreast of this discussion should subscribe for some of

## 

Kansas almost everything runs into politics. Our readers are of every sas farm paper to helphim wants a Kan front rank as a successful producer, and none ctres to have adverse political or economic views thrust before him in the place where he looks fo nformation as $t 0$ his especial caling No doubt the publication in these col questinns would bring them to the questions would bring them scrupulously avoid reading the journals which make a specialty of the presentation of these same views, but they would
not continue long as readers of what they do not want to read, and we should straightway lose the opportunas to instruct them in economics against their wishes.
The fact that all political parties propose to remedy whatever is wrong difflcult to present any side of economics without seeming to get into partisa politics. The Kansas Farmer is ou of politics, and whatever else it does it
In all ages, the present not excepted n one basis of claseification, humanity has been divisible intutwo classes-tie ceptions, the ridden have been, in times past, and are now, almist as reluctrnt to promote changes to put the riders afoot and relieve the ridden as the riders have bern averse to dismounting. Indeed, the experiences of society with disruptions of the established order have generally been
lattended with catastrophes such that
is not so very surprising that "we rather bear the ills we have. others that we know not
The writer doas not remember so long ago that good men and true were not planning for reforms which would give the farmer better compensation ward of such philanthropists has not infrequently been ridicule, in which those they sought to help took a libera part; poverty, because they worked for others rather than themseives; obtically unknown graves. Whethe they did more good than those wh devoted themselves to raising bigge crops is a question which will not be considered here. But certainly some of us must attend to the big crops, some Kansans must devote their efforts to the study of the best methods known to modern progress, otherwise producer elsewhere will so outrun us in the race of efficiency in the cultivation of th oil that we sha'l be reduced to lowe evels in the scale of prosperity whil those who atudy to improve their meth ods may ficd, under present social conditions, ample remuneration for the products which their improved meth ods realize.
This last observation was well illusrated by the experience of a young farmer who called at this office last week. He is a graduate of the State Agricultural college. He is a diligent student of all that modern science io doing for the betterment of farm metbods The farm, which is a good one near Topeka, has been rented to nurserymen, who have raised apple trees, and have paid an annual cash rental of $\$ 10$ per acre. The young man has been farming since his return from echool and has found that he cannot afford longer to let the nurserymen have the land at $\$ 10$ per acre. The considerstion of economic questions may or may not interest such a farmer, but certain it is that if the Kansas Farmer can assist the great body of farmers in the State to such prosperity by assisting them to raise bigger orops, it will ac bly possible through such influence as it might have by devoting itself more fully to economic questions.

WHEAT PRIOES AT OHIOAGO.
Cash prices of No. 2 spring wheat at Chicago, and months of lowest and highest prices, accord:
cinnati Price Current:

| ears. | Mimths of linwest price. | Yearly range of prices. | Months of hiuhest price. |
| :---: | :---: | :---: | :---: |
|  |  | $50 \underbrace{\text { a }} .15$ |  |
|  | Dec mber $; 1$ | ${ }_{5}^{66}{ }^{\text {and }} 1.13$ |  |
|  | Janaa y ..... | 64 @ ${ }^{5}$ O21/2 |  |
|  | Migust | 80 @1.121/2 |  |
|  | March | 85 |  |
|  | Frbruar | 77 @2.13 |  |
|  | Angast | ${ }^{55}$ |  |
|  | December | 761\% @1. |  |
|  | April |  | July. |
|  | Aovemb | 01 col. 61 |  |
|  | Seitemb | 89 @1 | July |
|  | Ontner. | $8112(101.28$ |  |
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|  | tugnst. | 011/2@1 |  |
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|  | ${ }^{\text {July }}$ | 85 @1 16 | April. |
|  | 0) tober | $\begin{aligned} & 691 / 04 \\ & 51 \% \\ & 51 \% \end{aligned}$ | He raary pril. |
|  | S. ptemb r... | ${ }^{50} 10$ | Ap |
|  | January | 483/ 10 |  |

The report of the State Board of Agriculture for the month ending Docember 31, 1895. is out. It contains the Surm decen live stock statitics for 1895. The report consista almost en1895. The report consists almost eningly interesting to read as a novel, is an invaluable brok of reference. Synopses of the principal features of this and have apprared in the columns of and have apprared io
the KANSAS FARMER.

Every breeder in Kansas should have the Breeder: Gazette (prico 82 a year) and the KANSAB ARBmbR
are furus a yed by us for the price of one are furuished

## THE INVENTORY.

This is the time of year when the merchant and the manufacturer take ccount of their properties of every ort and also of their debts. By com paring this year's inventory with that fast year the gain or loss is at onco pparent. The fact that very many businesses havo shown successiv losses renders the making of the inven ory an unpleasant task, but the bual ess man finds it a necessity. Farmers are apt to omit this important work. it is sometimes unpleasant to see in old figures that one's possessions are eally less than he has allowed himsell to fancy. Some imagine that it may have some effect on assessment, or that it is likely to cause uneasiness of concience because its figures do not agree with those given to the assessor. It is better to know the exact condition of one's business than to feed the imagination on unreal wealth. The inventory is for the private information of the owner of the property, and is a matter with which the aseeseor is not conserned. It is the common acceptation of the law as to listing property for caxation, that while the law says all property shall be rated at its true value in money, it is held to mean that in talking to the assessor this "true value in money" is one-third, one-fourth or one-fifth of the value of the property as listed in the private inventory. This may be all wrong but it is the true state of the case. It is perhaps as good conscience to admit to one's self this reduction as to attempt self-deception in the matter by neglecting to make an inventory.
In making an inventory, it is well to note the property by classes. The land will probably be the first item and may be followed by improvements, such as buildings, fencing, orcharde etc. Stock, farming implements and produce on hands may follow, each be ing noted in detail. Household effecte 180 moneys and credits, etc., should be included.
Another list should be made of debts of every kind. The real state of affair is readily ascertainable after the liste are made, and no one should fail to make the
tractions.
The advantage of knowing one's own exact financial condition will be appreciated after trying it. A train of thought is sure to be suggested as to means of bettering the situation. Som changes in methods, some shortening of expenditure, greater liberality in some directions-every inventory will rove worth more than it costs and rill certainly suggest, almot the keeping offectual scrutiny as to leaks and possible betterments.

The new Kansas Farmer binder is made expressly for the convenience of desire to keep their Kansas farmers tt take in a holds fifty-two numbers, and keeps the papers in as nice shape as if they were a book. The price is 25 cents, postpaid, or $\$ 1.10$ for the binder and the FARMER one year. Send your own reFARMER one year. Send your yearly newal for one year and a new yearl will send two binders, one for yourself and one for the new sub-criber.

There is a grotesquely humorous side to the Venezuelan complication. Venezuela asked that the disputed question of boundary between that c, untry and a British colony be arbitrated. Great Britain said, "there is nothing to arbitrate. We are right,
we are strong and you must submit." The United States thereupon demanded that the bundary question be submitted to arb tration and virtually
sald, "we'll whip you if you don't arbi8ald, "We'll whip you if you dont arbitrate." There has not yet appeared th) Uncle Sam, "you must arbitrate that question with John Bull." On the "Easland has long needed whipping, Eayland has long needed whipping, San' is just the size to do it."

Buckingham's Die for the Whiskers can be applied when at home, and is uniformly successfil in coloring
Hence its popularity.

Ouriosities in Oompound Interest. Editor Kansas Farmer:-My attention has been called to a recent editorial in the FARMER, entitled "How to Get Rich," making specia reference to the compounding of factor. Very an almost indispensie appreciate the power of interest compounded through long periods of time, even at a moderate rate periods of time, even at a moderaterace
per cent. As curiosities, if nothing per cent. As curiosities, if nothing
more, the following examples may be more, the following examples may of interest to the readers of the KaNof interest
SAS FARMER.

1. One penny put at interest at the birth of Christ, at 5 per cent., and the interest compounded annualiy, would at the close of the year 1810, have amounted to more money than could be expressed by $357,000,000$ globes of solid gold each as big as this earth. At simple interest at the same rate and for the same time, the amount would have been only seven shillings, seven pence, halfpenny. Extending the calculation to the close of the year 1846, the result would equal $2,107,530$,864 worlds of solid gold!
2. If Christopher Columbus, when he discovered America, had placed at interest \$1, and the interest had been compounded annually at 10 per cent., it would, in the year 1892. have
amounted to $\$ 17,450,256,185,477,376$. At simple interest at the same rate and time, the amount would have been $\$ 41$. Assuming the population of the United States in 1892 to have been $65.000,000$, this sum would have been equivalent to $\$ 268,465,477$ for each man, woman and child in the country.
3. An issue of the Salt Lake Tribune, in 1892, says: "Mr. J. F. Cortser has a copy of a very curious mortgage. It gage was given by Lewis Forest and gage was given by Lewis Forest and
wife to B. F. Wayne, dated December wife to B. F. Wayne, dated December
1,1861 , on the west one-half of lot 8 . block 21 , Buise City, Idaho. The mortgage was to secure $\$ 340$, if paid in legal tender, at the rate of 20 per cent. per month, but if paid in gold or silver coin or in gold dust, the mortgage
would be for $\$ 170$, with interest at the rate of 10 per cent. per month. If the interest was not paid at the maturity of the note, April 1, 1865, the amount of the note, April 1, 8865 , the amount
was to be added to the principal and was to be added to the principal and
compounded semi-annually with intercompounded semi-annually with intermortgage was never satisfied, and the mortgage was never satisfied, and the interest on $\$ 170$ at 10 Der cent. per
cent. per month, compounded evary cent. per month, compounded every
six months, would amount to $\$ 45,972$, six month8,
$003.182,020.50$."
A contrast or comparison between simple and compound interest at 10 per cent. for 400 years would show as follows


To pay out the amount given at the
end of 300 years, would end of 300 years, would require the
services of 111 paying tellers just 300 years, or precisaly as long as it took 81 at 10 per cent. to produce that amount and to do it in that time each one would have to count $\$ 10$ every second without intermission during banki
hours ( 9 to 4) Sundays excepted. hours ( 9 to 4) Sundays excepted
Of course the periods of time given in these examples are too long to be of practical value or else the rate is too
high to be available in ordinary business. They are only cited as curiosities and to illustrate a point. Should the readers of the FARMER care to make other comparisons between interest investments und non-interest investments, or between simple and
compound interest during periods of
time short enough to be of practioa value, they will find that the long sought seldom-iound roine seing tune is along the line of saving a safe investment at a fair rate of in safe investm frequent compounding nd time enoug
Topeka, Kas. J. its work.
J. E. Cowarle.

Publioations of United States Departmen of Agrioulture for December, 1895. [Nore.- The Department has no list to whom an its pubncatications will be mailed
Monthly List of Publi
to all applicants. For the maps and bulleto all applicants. For the maps and bullethat Bureau. The publications mentioned below t) which a price is attached may beobtained of the Superintendent of
Documents, Union building, Washington, Documents, Union building, Washington,
D. C., upon the payment of the price
thereof ss fixed by him in accordance with the provisions of sections 61 and 67 of the act providing for the public printing and minding, and the distribution of pubiic docu-
ments. approved January 12. 1895 . Apliaations for other publications should be
addressed to the Secretary of Agriculture, Washington, D. C.]
The World's Marisets for American Products. Belgium. Price 5 cents. Report of the Pomologists.
B. Heiges. Price 15 cents.
Timber: An elementary discussion of Characteristics and Properties of Wood By Flibert Roth, Special Agent in Charge of Timber Physics, under the direction of B. E. Fernow, Chief of the Division of Forestry. Price 10 cants.
The Kussian Thistle-
The Kussian Thistle.-Gives description, troublesome character, useful qualities rapid spread and present distribution, rem
edies, and avenues of introduction to be guarded.
Contributions from the United States Na tional Herbarium, Vol. III, No. 5. Report on Mexican Umbellifere, Mostly from the State of Oaxaca, Recently Collected by C. G. Pringle and E. W. Nelson. By John M. Coulter and J. N. Rose. Descriptions on Plants, Mostly New, from Mexico and the
United States. By J. N. Rose. Purely technical. Price 10 cents.
North Amerioan Fauna No. 10. Revision f the Shrews of the American Gener Blarina and Notiosorex. By C. Hart Mer iam. The Long-tailed Shrews of the Eastern United States. By Gerritt S. Miller Jr. Synopsis of the American Shrews of
the Genus Sorex. By C. Hart Merriam. Price, 15 cents.
Report of the Statistician for 1895. By Henry A. Robinson.
Silos and Silage
S. S., Professor of Animal Industry and Dairying in Purdue University, and Director of the Indiana Agricultural Experiment Station.
Charts of the Weather Bureau. (Size 19x24 inches.)-Weather-crop bulletin (series of 1895), reporting temperature and
rainfalls with special reference to their rainfalls with special reference on crops (Nos. 31 for the month of
effer November, 1895 ) Daily weather map, Showing conditions throughout the United changes. Snow charts for December 9.23 and 30. 1895. Storm Bulletin No, 8 of 1895. Atlantic cosst storms of December 12 to 18
and 12 to 15,1895 . Monthly Weather Review-June, 1800.
Price, 10 cents. Price, 10 cents.
Monthly Wea
Monthly Weather Review-July, 1895.
Climate and Health. No. 3.-A summary of statistics for the four weeks ended September 28, 1895. Price, 10 cents.
Climate and Health. No. 4.-A summary of statistics for the four weeks ended Octo ber 26, 1895. Price, 10 cents.
Report of the Chief of the Weather Bu reau, 1894. Price, 30 cents.
Barnyard Manure. By W. H. Beal, of the Offlce of Experiment Stations.

## Farmers' Institutes.

Farmers' institutes have been appointed for the following places and dates, and will be attended by the rep
resentatives of the Agricultural college named:
Overbrook-(no date).
Peabody-January 30-81, Profs. Mayo and Edgerton-January 23-24, Profs. Graham Washington-January 16-17, Profs. Mayo and White.
Randolph-January 30-81, Profs. George-
son. Winchip and Will. Hon. Winchip and Will.
Huthinson-February 6-7, Profs. Popenoe and Mason.
Hiawatha - December 26-27, President
Fairchild and Prof. Mason.
Broworitis. Sudden changes of the
weather cause Bronchial Troubles. Brown's Bronchial Troches will give effective relief. How to Irrigate.
Practical information for practical farm-
ors and fruit-growers in the January number of The Irrigation Age. Price, 10 cents.
No. 34 Clark street, Chicago.

Meteorologioal Summary for the Year 1895.

Prepared by Chancellor F. H. Snow, of he University of Kanss tions taken at Lawrence.
The average temperature of the year 1895 was neariy of the monthly temperature in some instances departed widely from the mean. Thus April and September were mean. Thus April and September were markably cold.
The rainfall of the first five months of the year was very deflicient, little exceeding one-half of the average amount, but the extraordinary precipitation of the four folowing months was the cause of an abun-
dant corn crop and brought the total rainfall for the year 1895 to the highest point yet reached since our record began. The total distance traveled by the wind during the year was slightly above the average; the sky was more than 2 per cent. clearer than usual; and the barometer was
nearly of average height. The number of nearly of average height. The number of tempirature.
Mean temperature of the year $5834^{\circ}$, Wich is $.82^{\circ}$ above the mean of our twenty eight years record. The was $96^{\circ}$, on July 6 ; the lowest was $185^{\circ}$ below zero, on February 7, giving a range of $1095^{\circ}$. Mean at 7 a . m., $47.58^{\circ}$; a p. m., $61.45^{\circ}$; at $9 \mathrm{p} . \mathrm{m}, 52.20^{\circ}$.

Mean temperature of the winter months. $77.79^{\circ}$, which is $1.57^{\circ}$ below the average winter temperature; of the spring, $56.64^{\circ}$
which is $8.09^{\circ}$ above the average; of which is $8.09^{\circ}$ above the averace; of the
summer, $74.17^{\circ}$, which is $1.24^{\circ}$ below the summer, $.17^{\circ}$ above the average.
The warmest month of the year was Au gust, with mean temperature $74.37^{\circ}$; the warmest week was September 12 to 18 mean $80.68^{\circ}$; the warmest day was July 16 nean $85.12^{\circ}$. The mercury reached or ex ceded $90^{\circ}$ on twenty-nine days (eight be wenty-nine hot days four were in May our in June, seven in July, five in August and nine in September.
The coldest month was January, with mean temperature $25.07^{\circ}$; the coldest week was February 1 to 7. with mean 6.64 ; the coldest day was February 7, with mean $5^{\circ}$ below zero. The mercury fell below zero
in ten days, of which two were in January on ten days, of which
and eight in February
and eight in February.
The last hoar frost of spring was on May 18; the first hoar frost of autumn was on September 28, giving an interval of 183 ty-one days shorter than the average inter-
The last black frost of spring was on March 21 ; the flrst black frost of autumn was on October 28, giving an interval ser
days, or fully seven months without sever days, or fully seven montss wis is 200 days.
frost. The average interval
The entire RAIN
The entire rainfall, including melted above the annual average. Elther rain or snow or both, in measurable quantities, fell on ninety days-eight less than the average. On twenty-four other days rain or snow fell in quantities too small for measurement. The heaviest rain of the year was 588 iuches on August 14, which has been exceeded only of thuader showers was thirty-six.
The entire depthow.
The entire depth of snow was sixteen
inches, of which seven inches fell in January, one inch in February, one inch in March, and seven inches in December This is five inches below the annual aver-
age. Snow fell on twenty-six days, on sixteen of which the quantity was too small for measurement. The last snow flurry of autumn was on October 30.

## face of the sky.

The mesn cloudiness of the year was 4108 per cent., which is 235 per cent. below the average. The number of clear days (less
than one-third cloudy) was 165; half clear (from one to two-thirds cloudy), 115; cloudy more than two-thirds), 85. There were orty-five entirely clear days and thirty-five
entirely cloudy days. The clearest month was September with a mean of 2088 per cent. ; the cloudiest month was December, mean 5376 per cent. The percentage of cloudiness at $7 \mathrm{a} . \mathrm{m}$. was 43 21 ; at 2 p . m., 4637 ; at 9 p. m., 88.52. There were only four logs during the year, which is nine below the average.

DIREOTION OF TEE WIND
During the year, three observations daily the wind was from the southwest 308 times;
south, 165 times; north, 146 times; northsouth, 165 times; north, 146 times; north-
west, 182 times; southeast, 110 times; northeast, 106 times; east 89 times; west 44 times. The south winds (including bered the north (including northwest, north and northeast) in a ratio of 578 to 384. velocity of the wind.
The number of miles traveled by the
wind during the year was 184.528 , which is wind during the year was 134,02, which is gives a mean daily velocity of and a mean hourly velocity of 15.36 miles.

The highest velocity was 75 miles an hour on February 6 and April 5, for a few minates only on each of these dates. The highest daily velocity was 1,102 miles on the th of February; the highe monthly velooity was 13,890 mindiest months were March, May and December; the three calmest months were June, July and August. The average veocity at $7 \mathrm{a} . \mathrm{m}$. was 14.38 miles ; at 2 p . m., 16.79 miles ; at $9 \mathrm{p} . \mathrm{m} ., 14.55$ miles.

Mean height of barometer column, 29.118 inches, which is 0.009 inch above the annual $2 \mathrm{p} . \mathrm{m} ., 29.105$ inches; at 9 p . m., 29.114 inches ; marimum, 29.840 inches on., 20.11 8; minimum, 28.378 inches on April 6; yearly range, 1,475 inches. The highes mont the lowest was 29.288 inches in DecemThe barometer observations are corrected for temperature and instrumental erro only, the altitude being 874 feet above th
level of the ses. level of the sea.

Monthly Weather Report for Decomber

## 1895.

Prepared by Chancellor F. H. Snow, of aken at Lawrence: The past month
verage December. The month wassilightly average December. The month wassinghtly number of winter days-days on which the nean temperature was at $82^{\circ}$ or below-was bove the average. Only two Decembers in the past twenty-eight years have had more rain, and only six bave had more now. The number of days on which snow or rain fell was large, ony two Decembers numidity were considerably above the average, the barometer below. The maximum barometer for the month was the lowest but one.
Mean temperature was $82.20^{\circ}$, witich is $1.29^{\circ}$ abnve the December average. The highest temperature was $61^{\circ}$, on the 16 th; the lowest was $4.5^{\circ}$ on the 8d, giving a
range of $565^{\circ}$. Mean temperature at 7 a. 2.. 27.

Rainfall. including meited snow. was 8.86 nches, which is 1.87 inches above the De cember average. Rain or snow in measurble quantities fell on nine days. Total nnowfall for month was 7.02 inches. There was one thunder shower during the month The entire rainfall for the tweive months 1895 now completed was 47.14 inches. which is 11.3 inches above the annual average for the twenty-seven years immediately pre ceding.
Mean cloudiness was 58.78 per cent. of the sky, the month being 445 per cent. cloudier than usual. Number of clear days (less than one-third cloudy), ten; half clear (from one to two-thirds cloudy), twelve; cloudy (more than two-thirds), nine. There were two entirely clear days, and seven m., 54.03 per cent.; at 2 p . m., 56.29 per cent.; at 9 p. m.. 50.96 per cent.
Wind was southwe st twenty-two times northwest, sixteen 11 nes; north, thirty times; south, eixht times; northeast. six times; east, two times; southeast, three times; west, six times. The total run of the wind was 18355 miles, which is 1881
miles above the December average. This gives a mean daily velocity of 430.8 miles, and a mean hourly velocity of 18 miles. The highest velocity was 60 miles an hour, between 1 and 2 p . m . on the 11th.
Barometer.-Mean for the month, 29.099 nches; at 7 a. m., 29.110 inches; at $2 \mathrm{p} . \mathrm{m}$. , 39.076 inches ; at $9 \mathrm{p} . \mathrm{m} ., 29.113$ inches ; maxmum, 29.511 inches, on the 2 d ; minimum, 0.984 inches.

Relative humidity.-Mean for the month, 7686 per cent ; at 7 a a. m. .87 .08 ; st 2 p . m.
763.96 ; at 9 p. m., 78.1 ; greatest. 100 , several imes during the month; least, 87 , at 9 p . m. on the 1
the month.

## The World's Fighth Wonder.

Its not a pyramid nor a hanging garden, its Salzer's Silver Mine Oats, which yielded 209 bushels per acre. Silver King Barley produced 116 bushels per acre. You can beat that in 1898 and win 8200 . Largest
arass. clover and grain seed-growers in grass. clover and grain seed-growers in
America! 148 page mammoth catalogue 5 cents postage, or if you will
Cut this ont and
postage to the and send it with 10 cents Crosse, Wis., you will receive their mam moth catalogue and ten packages of grains and grasses, including package of
Mine Oats and Silver King Barley.

The Rural New-Yorker helps reduce the mortgage and increase the profits of the farm. Let us send it this week. Send your address; no money.

The Rural New.Yorker, ;

## In the Dairy.

Conducted by A. B. Jonss, of Oakland Dairy

## DAIRYING AND AGRIOULTURE،

 Paper read by Hon. F. D. Coburn, at the KansaState Dairymen's meeting, Newton, Kas, Novem er 21, 1895.
Although it affords me pleasure to be with you here to-day, I do not come as a dairyman, nor as, in any sense, an instructor, yet in a very modest way a
long-time Kansas farmer. I am here long-time Kansas farmer. I am here firstly, to suggest by being here that I appreciate the increasing importance
und magnitude of the interest that and magnitude of the interest that this association is organized to promote
and that my hearty sympathies are and that my hearty sympathies are with it and every similar for the better ment of our conditions as citizens o Kansas, and secondly, to learn more of your vocation, your methods and your needs, that if in anywise within my power I may render you some service. An interest that represents such an amount in dollars and cents as this has already attained to and that has such possibilities for the future-possibilities scarcely touched upon, can but command the best attention of the best minds. There may be, and doubtless are, regions just as well adapted to the successful prosecution of dairying, but taking everything into consideration I doubt if there is any other presenting more advantages than will be found here when the business is further advanced and put upon the systematic basis to which it will yet be brought by our fellow citizens here on the former range of the buffalo.
All my observations of the business as a business man have tended to convince me that in it the most conspicuous success is invariably attained where the most carefully devised sysmethods, carelessness and lack of system are equally as certain to result in dissatisfaction and disaster. Probably no other country has made such general progress or prosperity in dairying in recent years as Denmark.
As indicating the care and method pursued there I have been much inter "The Milk Supply Company, of Copen hagen," a company upon which the city relies for its milk. This organicity relies for its milk. This organi dairymen of the surrounding districts and holds them strictly responsible for its quality and the condition of the cows from which it is obtained; each dairyman who sells milk to the company is required to sign a carefullydrawn contract, comprising amo
The feed must be such that it does not affect the taste or character of the milk injuriously. The use of distillery slop and like substances for food is ab-
solutely prohibited, and the use of all solutely prohibited, and the use of all
feed that has been injured or is not feed that has been injured or is not
well preserved. The use of turnips kohl rabi, rutabagas and the leaves o all kinds of root crops is prohibited. Cows supplying milk for children must not be fed oil cake of any kind, and for others the grain mixture used must receive the company's approval.
In summer the cows must not be fed
in the barn under any conditions. in the barn under any conditions. The cows must be clipped on the udder, tail and hind quarters in the fall before they are put in the barn.
Fresh milk up to twelve days after calving must not be delivered, nor will the company accept milk from cows that give less than six pounds per day.
The utmost cleanliness must be obThe utmost cleanliness must be observed in milking, and the milk must covered with a clean woolen cloth.
Every dairy must be supplied with a certain make of milk cooler, and this may be rented of the company if de-
sired. As soon as drawn the milk must sired. As soon as drawn the milk must
be cooled by the use of ice water on the cooler to $41^{\circ} \mathrm{F}$. before being shipped, and this at all seasons of the year.
It must not be sent from the farm sooner than necessary to make the train, and in summer the wagons m
be covered so as to shade the cans. The company will supply the cans,
clean, but they must be rinsed with clean, but they must be rinsed with
cold water immidiately upon their ar-
rival at the farm. They must be kept in an airy place, protected from al dirt, with lids removed and opening
downward, but so that the air has free acces sed.
The cans must under no circumstance be used for any other purpose than the ransportation of milk
The dairyman must agree to answer all questions concerning the milk which the company may put to him. He must permit one of the company's vet-
erinarians to examine his cattle whenerinarians to examine his cattle whendirections the latter may give, and frnish transportation to the veterinarian to and from the railroad station.
If any contagious disease occurs
among the persons who live on the among the persons who live on the farm or at the homes of the laborers duty of the dairyman to inform the ompany of the fact at once.
Should the milk be found of so inferior a quality as to be unfit for sale the company reserves the right to sto its delivery without remuneration.
The company employs a corps of vet ne all dairies which furnish milk, and any diseased animals found must be a once removed from the herd under heavy penalties; if the owner think he has discovered any actual disease he at once keeps the milk separate, or pany.
As soon as the milk is received in the city each lot is carefully sampled and at once tested for butter fat by an immense Babcock machine constructed dition to these and other pres in ad all of the whole skimmed milk is filtered before it leaves the company's warehouse.
They supply three grades of milkwhole millk, half skim-milk and milk for children; they also supply two second. For the skim-milk morning's milk is allowed to stand twelve hours before skimming. The children's milk is obtained only from cows which have been selected for the purpose by the and sealed immediately upon its arrival.
The filtering machines are thus de scribed: Imagine a forty-gallon bowl from meled iron on supports, ive lee the bottom through which the milk enters and near the rim are two dis. oharge pipes, one on each side of the bowl. The filtering material consists of three layers of gravel and six thick ring of ine musina stretched over a ring that fits closely inside the bowl gravel. The gravel is of thres grades f fineness. The lower is about the size of duck shot, the middle layer is as small pin heads. Each layer rests n a thin plate, perforated with many ne holes, and which fit closely to the sides of the bowl. Each layer is about
two inches thick, and there is a space of an inch from the top of one layer to the tin plate which supports the nex layer above. The milk is poured into the filter. A brass pipe leads from the bottom of this reservoir to the bottom of the filter bowl. The pressure thus obtained forces the milk throngh the
successive layers of gravel and six successive layers of gravel and six
thicknesses of cloth, and when it rises to the top it is drawn off through the elivery pipes.
I call attention to this as a good example of the careful painstaking deemed requisite by a concern with large interests at stake, and essentia to success in supplying acceptably a city of 200,000 inhabitants with whole s my view has extended, genuine sud lasting success in this business is no where attained without similar painstaking.
If there is any one thing that my obof more than any other, it is that the limit of our possibilities in production are too often scarcely half reached, and have little doubt that this applies a well to some features of dairying. J
W . Smith, of Green Bay, Wis., at fifty
years of age began gardening on a poo nd unproductive soil, taking as mo oes for his guidance, thorough drain plant food, and good tillage. He lived, we are told, to see his forty-acre farm we are told, to see his forty-acre farm
produce strawberries at the rate of 400 produce stravberries at the rate of 400
bushels to the acre, potatoes 750 bushbushels to the acre, potatoes 750 bush-
els per acre, and onions 1,000 bushels. As a reward for his faith in the idea As a reward for his faith in the idea
that there was practically no limit to that there was practically no limit to
the production of an acre, if properly treated, he received in one year, as the amount of his gross sales from forty cres, $\$ 16,000$. We do not expect every ne to be able to sell an average of $\$ 400$ worth of products per acre from forty acres of land; but there is only one thing that stands in the way of approaching this standard to a much greater degree than is done, and that unwillingness to bring to the task the necessary amount of intelligent Mr. Smith with a view to inoculating Mr. Smith with a view to inoculating avery a fortune out of forty acres of make a fortune out of forty acres of
land in a single season, and Mr. Smith did not do it in that way himself. His uccess, we do not need to be told, was the result of patient effort, pursued with unvarying constancy, keeping the guiding principles he had chosen coninually in view. It seems to me that this persevering, painstaking, intelligent effort is what leads to success in
any line, and I think of none to which any line, and I think of none to which
it might perhaps be more applicable it might perhaps
than to dairying.
I am sure we are advancing in dairy methods, for within my own recollec tion my grandmother, of sainted memory, slapped the buttermilk out of her butter with her hands. That her method, crude as it may seem, was thorough and effective I can feelingly testify, for I was no doubt frequently beneflited by the same vigorous manip ulation. And this reminds me of an necdote from England, where, as it is in many counties to educste farmers in dairy lines. One method is that of traveling dairy schools with a dairy van, or, as we would say, a dairy wagon, accompanied by a bright young woman who visits the farmers' homes and instructs them in the first principles.
In narrating some of her experience one of these women tells this:
"In one village I was especially mused with an old lady who alway iked her butter clean, and she invited me to see her dairy. I went expecting o behold a model place, lnstead I was escorted to a very small, stuffy room which contained numerous little thinge nay ol ag of moldy rags in another corner ad hanging from the ceiling was not too clean pair of gloves. 'Ah,' said gheves. Mine gloves are most valyable; I've had 'em this five year. tlus make my butter in 'em. Fayther -my old man-he wears 'em on a Sun ay, and on days what I churns I rinse 'em and puts 'em on and makes the
butter. I never touches it with my hands.
An important point upon which we are weak, and I suppose it applies to dairymen quite as well as the rest of us , is our failure to produce more of he articles we consume, and we go on in this way until it amounts to business suicide. We export money and import clothing when home-grown wool should be made to pay the bills; export money and import fruits, vegetables and canned goods, when intelligent attention to orcharding, vegetable farming and gardening would enable us to prouce nearly all these articles at home in ample quantities, and we taboo the dea of home manufactures, when the people who produce in other States 80 arge a part of the products which we consume grow wealthy as a result of their thrift and our thriftlessness. And then, to cap the climax, the absorbers and the absorbed get at loggerheads ecause, in the natural run of events, he larmer class had money to loan and sovereign remedy for the evil effects ignoring the plainest rules of business management, a portion of
our people have swallowed the mischievous doctrine that they oan be

## WINTRY <br> WEATHER WEAKENS

the system, lowers the vitality and de creases the power of resistance against
colds and chills. Many people ara feel colds and chills. Many people are feel
ing weak and shivery just now. They ing weak and shivery just now. They blood doesn't circulate properly; the raw, bleak air seems to go right through them. Others feel worn out and lack vigor. They are bilious, nervous, have backaches, headaches, and a pale sallow complexion. All these symptoms indicats that the liver and kidneys are
out of order. Feeble circulation of out of order. Feeble circulation of very low condition. People who fee like this are facing some dangers they

## little suspect.

## LOOKOUT

for pneumonia, influenza or some other
dangerous complaint when you are in dangerous

## If you state! If yov

If you have any of these symptoms and are not feeling so well as you ought to feel, do not wait until you are laid up Take something that will build up the system, put the blood in healthful mo tion and act on the liver and kidneys. Prevention is better than cure.
There is only one way to get well. There is only one remedy that can make you well. The remedy you need is mended and prescribed by physiclans mended and prescribed by physicians edy contains the vital principle essentia to the maintenance of health and strength. It increases the muscular energy, fortifies the system and builds up every part of the body. It has never been equaled as a cure for liver and kright's disease. It is the trouble or ard remedy, the best remedy, the ard remedy, the best remedy, the science. Every one who has ever tried it, believes in it.
If your health needs attention, do not experiment with inferior remedies. It is cheaper and wiser to take a remedy that has earned a world-wide reputaion, which has stood the test of year that it can always be depended upon to relleve and cure.
legislated into prosperity. We raise dogs and buy hogs. We let our macrops are light. We grow weeds and buy vegetables and brooms. We catch 5-cent fish with a $\$ 5$ rod. We build school houses and colleges and then send our children away to be educated, And last) $y$, we send a boy out with a 840
gun and a so-called $\$ 20$ dog to hunt 10 gun and a
A well-known Southern writer, in describing the condition of affairs in his State, where they were always buy-
ing but never producing, and hence were almare producing, and hence of the burial of one of his fellow citizens, which would be only too true in many another community outside of Georgia. He says: "They buried him in a marble quarry; they had to cut but the sombarble dig his grave, was brought from Vermont. They buried him in a pine forest, but the pine coffin they put him in came from
 his coffin and iron mine, but the nails in they dug his grave were imported from Pittsburg; they buried him in the tryst of the finest sheep-grazing counon the world, but the woolen bands the South a were made in the North; earth for that funeral but the corpse and the hole in the ground.
"They threw the clods down on his coffin, and they buried him in a New York coat, a Boston pair of shoes, a givingo vest and a Cincinnati shirt the State in which he was born and for
modity for this purpose equal to brains.
As an illustration of fertilizing with brains I would suggest the county of Jefferson, in Wisconsin, where, as it so happened, I was born. It was originally a fairly good county in a reasonably good part of a very good State, but agriculture had been carried on in such an indifferent, brainless way that in 1870 the land would produce about eight bushels of wheat per acre and the mortgage indebtedness of the county was equal to nearly 45 per cent. of the farm valuation. About this time two or three men with brain,
of whom was my friend W. D. Hard, who later became the honored Governoriof his State, and who is yet editor of that useful dairy paper so well
known to all of us, began to agitate the known to all of us, began to agitate the subject of dairying and its possibilities
for that region, if judiciously and systematically carried on. They made careful study of the subject and with a few of their more intelligent neighbors embarked in the business of butter and cheese production. They offered no product that was not of the highest classs, and soon the goods from Jefferand active demand. Gradually other took up the work, and now from the use of brains along with mnscle that county, within twenty-flve years, has become one of the greatest dairy cenfrom $\$ 65$ to $\$ 100$ per acre, their average yield of wheat is nineteen bushels, and although strictly a rural community its people have a million and a half on money in the bank, highly improved farms with big red barns and houses to correspond on every quarter section,
only 7 per cent. of them mortgaged, and where plenty, comfort and intelligence have their seats. If you ask what has made this, the answer, Gov. Hoard has said, is the steady, constant accumulation from their small but well-handled herds of cows. "These of the cow, and along with this have used the plow with more intelligence and a wider diversity. They have improved the breed of their cows, to be prove, but the improvement in the breed of dairymen has been just as great, and out of all this comes progress and pros-
perity."
The difference in men in accomplishing results along lines like these is
illustrated by a cow at the Minnesota State farm. During the year 1893 she is reported to have earned $\$ 127.50$, the is reported of her feed and keeping for the cost or period was \$42.56, leaving a sursame period was $\$ 4.56$, leaving at
plus of $\$ 64.94$ for her owner. Truly, such a cow must be a good investment, but her former owner did not think so, was getting the best end of the bargain. Of course he was, in a way, would never have developed the earning capacity of the animal in the manner that men familiar with the was a good bargain or to cow, because it transferred her to people who knew how to feed her so as to permit
a generous response at the pail, and treat her yield in an intelligent manner so as to make its product command the highest possibe and her subsequent earnings tells the story in concrete form; there are dairymen and alleged dairymen, farmers and alleged farmers, and that
the latter have not sufficient gumption the latter have not sufficient gumption to make a success of business when op-
portunities thrust all the essentials of prosperity upon them.
As has been truly said, the farmer of the future to win, to have recognition among men who influence and mold the affairs and the society of his time must be intelligent in his work, he
must use either more brains or brains must use either more brains or brains of a better quality; competition will
force him to this or the wall. He must recognize the fact that to be a successful farmer he must be a successful business man. No other occupations call
for closer discernment or more intellifor closer discernment or more intelligent action.
Avoid Pniumonis, diphtheria and ty-
phoid fever by keeping the blood pure, the phoid fever by keeping the blood pure, the ous by the use of Hood's Sarsaparilla.
Hoon's Puls have won high praise for
their prompt and efflcient yet easy action.

## A Happy New Year.

The dairy editor of the FARMER wishes all its readers a prosperous and happy New Year. The plans for 1896 require a large amount of work on the line of needed legislation, and we take this occasion to invita every dairyman in Kansas to render all the assistance possible in this most important matter. The time is ripe for action, and any delay or indifference may cause an-
other defeat and put us still farther other defeat and put us still farther away from the desired end. These in terests are paramount to all others and
there is no excuse for any one holding back.

## forticulture.

## Home-Made Wine.

Numerous inquiries have been received by the Kansas Farmer for a practical method of making grape ine. The correspondents have proog ition State, and that people ought no o use fermented drink for beversge ven in the pag States surrounding ver But they think that often, in case多. Buinge a little pure home-made ine fres the poisonous druge so Fine, free for the por thass titn put into whies th totore, maked Mr. A. L. Entsminger, the grapegrower and nurseryman of Sliver Lake, to give to KANSAS FARMER readers his method for making wine.
It will be noticed that Mr. Ento minger speaks of using a barrel and other large vessels. Possibly he expects that those who want this recipe are sick all the year round and require great deal or medioine, or that they will make at once a supply for a life-
time. Her
Here are Mr. Entsminger's methods
in his own words: n his own words:
"In order to make a reasonably good wine great care should be taken all the way through, and, if you can't make up your mind to do so, better not commence.
"First, make everything ready. If you intend to use a new barrel, first soak it sufficiently to take out all of the wood taste, then put in some quicklime. Now put in water sufflcient to slake the lime and roll the barre about, so that all of the inside may be as if done with a whitewash brush. While the lime is slaking the barrel should be closed up tight. Now wash out clean, cork tight and put in the cellar for use. When you get ready to fill the barrel, take some new wine make boiling hot, put in the barrel, cork tight, and roll about with vigor.
This is what is called making the barThis is what is called making the bar
ril wine-green. This process can all rel wine-green. This process can all be going on while you are making other preparations. Take a tank or ize determine yourself, cleanse nice and clean. Now insert a faucet about two inches from the bottom, so that the must (juice of the grape) can be draw mashed grapes for the purpose of allowing them to ferment in the pulp. Now prepare another tank precisely the same as the above. must for the purpose of allowing it to ferment after it comes from the press:
"Now you are ready for the grapes, which should be well ripened. It will baskets until the stems are well dried out. Now place your grapes in a tub or any other convenient vessel That should be done with the hands, taking care not to mash the seeds. After have described for the purpose; allow them to remain there about twen-ty-four or forty-eight hours, according to the temperature, which should not be lese than $60^{\circ}$. When the pulp is sufficiently well broken
rise to the top, leaving the must at the bottom. Now draw off the must with your faucet, which I have before mentioned. Now with a good cider press, convenientiy placed in preadines,
place a gunny sack in the pres. kind, dip the pulp into the same and
give a gentle pressing. After the pressing is complete, place the pulp back in the tub, then add about one-third as much well water as you have drawn off must, stir well, and allow to fershould now be placed in the second prepared barrel which I have previously spoken of. Now, dissolve two and one-half pounds of sugar for each gallon of must, taking care that the sugar is all dissolved. Granulated is the best. This is for Concord with less cid will not require so much. This may not be quite sweet enough, but more sugar can be added. The exact amount of sugar required can only be determined by the use of an acidometer, which is a very expensive concern. Keep well skimmed off until it has apparently spent its force by fermentation. Now great care should be taken in drawing off by means of your faucet, for if you stir it up at this stage you will have cloudy wine, which you will have much trouble to get clear again, which can only be done by adding yeabl and omporing process Now place your new wine in the tight barrel which I first described.
"Great care should be taiken so as not to allow bacteria to form in your barrel. In case it should, you will have something besides wine-nos8ibly vinegar, possibly dead wine. Both pressings should be put together in this barrel. When the barree is fall cork tight. Now take a piece of common gas pipe, about three-eighths inch in diameter, and bend in the shape of a siphon. Now bore a hole in the barrel -which should be placed on the sideinsert the longest end in the hole in the barrel, place a tumbler or earthen vessel under the other end of the giphon. Now fill the tumbler with new wine, which you have kept for the purpose. This will allow the gas to escape and prevent all danger of burst ing the barrel. Now be careful; do not allow this barrel to be disturbed so as to mix the sediment with the wine When the gas ceases to escape from the barrel through the siphon, the barrel may be corked tight. Abou the next June, or upon the approach of warm weather, you may expect a slight fermentation to take placeagain, after which your wine should be draw in with care, your barrel cleanse ave wine is cloudy, add some yeast, which will cause it to go through another fer menting process. This should be done before you rack off in June. If your wine has not high enough color you can add some raspberry juice, which will have the desired effect.
"Care should be taken to keep your barrel in a good cool cellar. If you prefer to bottle you can do so now, at way, both in bottles and barrels, for ten years with improvement each year. In fact, I never lost any. Now I hope or even the new beginner to make a
start at least. I might write a greast deal more, as I have said nothing about altering or how to make white, port or our wine. But I have been too engthy. Please do not flood me with letters of inquiry for points which you
do not understand. Write to the do not understand. Write

A Mistake in Orohard Planting.
EDITOR KANSAS FARMER:-It is a Whe man who observes and profits by ue mistakes of others. Mistakes and only succeeds in life who profits by oth.
I am led to these thoughts from the fact that 18 m now cutting down threelourths of an orchard of 400 trees last apring. For the benefit of beginners in orchard planting, I will enumerate a few of the orts I should have planted more sparingly. I planted too many early sorts. There is very little market for these. They are very perishable, won't stand shipment, and come in competition with small fruits. Nine-tenths of what I have grown have rotted on the ground. I planted twenty Early Harvest (two would have been plenty) and the same of Red Astrachan (one of them would have been plenty), set out twenty-five Summer Pearmain (should not haveset any), planted quite largely of Rhode Island Greening, Honey Greuning, Cooper's White, White Winter Pearmain, Yellow Bellfower, Harvest Redstreak (worthless), and many other sorts which it would have done to have planted one or two each in a family orchard, but which never should have been planted for market.
A family orchard of 100 trees should contain not more than twenty-five summer and iall sorts, the balance should be all winter apples of best approved orts. I will not attempt to name varieties. These depend upon the taste of the planter and his family. The State Horticultural Society, in its reports, furnishes an excellent list, which a safe guide to planters, either of amily or commercial orchard, and nould be consulted by all who conten late orchard planting on either a large or small scale.
I started orchard planting with the old toper's idea of whisky. He said "all Fhisky was good and soere good and
 Wort gre worthy of cultivation. Years and more worthy or culened the exuberance of my youthful enthusiasm. Nine-tenths of the varieties in any nurseryman's list are wholly worthless as commercial apples.
I am intending to plant 4,000 apple trees in the spring. There will be but hree varieties in the orchard-Ben
Oakaloosa, Kas. EDWIN SNYDER.
Oakeloces, Kas.
The best anodyne and expectorant for the cure of colds, coughs, and all throat, lung and bronchial troubles is undoubtedily for colds and coughs admitted on exhibl tion at the Chicago World's Fair.

## Nuilaligia Toturue. <br> y

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Improved United States Cream Separator. We have used vour No. S United States Separator with great
satisfaction, and from our records we fin wwe mare making tulty satisfactird more hulter than with our former process.
a thir melivered
We run a milk delivery route, and only the milk left undeliver
is run through the Separator. This milk is more or less churned, We run a milk dilivery route, and only the mire
is run through the Separator. This milk is more or less churned,
and sometimes has particles of butter the size of pea in it and
we consider it one of the most telling tests possible to make, to we consider it one of the most telling tests posside to make,
separate such milk as this. But your machine does its work in
grand style and we never have any trouble.
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Send for circulars of the U. S. Separator, the best machine for Prices to \$ult All, $\$ 75.00$ and up. Prices to
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imitating and infringing machines. Agents Wanted in every town and counts where we have Agents wanted in every town and county where we have We furnish everything for Cereamery and Dairy use.

Poultry Notes.
Whole wheat is one of the best grains for poultry.
Hens that are kept busy scratching rarely contract vices.
Wheat is rich in material for growth and stimulates egg production.
Fowls should be kept from food ten or twelve hours before killing.
To have the hens lay with any regu larity in winter, their quarters must be warm.
For fattening fowls cooked food is better than raw, for the reason that i is more easily digested.
Buckwheat is a good winter feed. It is valuable as an egg producer and will keep fowls in good condition.
On many farms geese could be raised to good advantage. Besides yielding a regular income in the way of feathers they are a profitable market fowl.
Keep the old hens that you know are good mothers, especially if the young ehickens are to be raised by them. A hen that is a good mother and a
forager is too valuable to be sold.
One of the most important items nec essary of chickens during the winter, especialeggs from a flock of healthy, vigorous fowls.
Good care, warm, clean quarters, pure water and the right kind of food Warm cooked food is ay right alor.g. War laying and in this the table scraps gg laying, and in this always Louis Republic.

## Important to Breeders.

Every one interested in improved stock should have the Breeder's Gazette, of Chicago, as well as the Kansas Farmer, which we furnish for the price of one-both papers one year for only (\$2) two dollars; or we will supply the National Stockman and Farmer, of Pittsburgh, Pa. (the best general farm and stock journal in this country, price $\$ 1.50$ ), and the FARMER, for $\$ 1.50$. Send for sample copies to the paper direct, and save money and get a big benefit by sending your subscription to Kansas Farmer, Topeka, Kas. No progressive farmer or breeder can afford at this low price to be without this great trio of farm magazines.

No one ever thought of introducing so expensive a feature as lithographic color work in the days when the leading maga-
zines sold for $\$ 4$ a year and 35 cents a copy. zut times change, and the magazines change with them. It has remained for The Cosmopolitan, suld at $\$ 1$ a year, to put in an extensive lithographic plant capable of printing 320000 pages per day (one color). The January issue presents as a frontispiece a water-color drawing by Eric Pape, illustrating the last story by Robert Louis Stevenson, which has probably never been excelled even in the pages of the finest The Cosmopolitan is also changed, a drawing of page length by the famous Paris artist Rossi, in lithographic colors on white paper takes the place of the manilla bdck with its red stripe. Hereafter the cover is o be a fresh surprise each month.
Mower Bros., Lost Springs, Kas. said: "The Berkshires we got of you last year did so well we want some more." Result, more sales to them. Don't you want some? Will sell cheap and guarantee satisfaction. Write O. P. UPDEGRAFF, Topeka, Kas.

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## KENDOLL'S SPAVII CURE

Shelby, Mich., Dec. 16, 93.
Dr. B. J. Kendial Co. Sirs:-I have used your Kendall's Surbs on two horses and it is the best Liniment I have ever used. Yours truly, August Fredrick. For Sale by all Druggists, or address
Dr. B. J. KENDALL COMPANY, ENOSBUROH FALLS, vT

## THE STRAY LIST.

FOR WEEK ENDING DEO. 25, 1895
Osage county-E. C. Murphy, clerk. TWO SOWS AND PIGS-Taken up by J. DeWitt
n Burlingame tp
tp (P. . Burlingame) December 3, 893, two black sows, and seven spotited plgs-on
ow silt in both eara; $\operatorname{valued}$ at 816.50 .
 Honsk-Taken up by J. 8. Nemer, In Canada ap.
December 5, 1995, one bay horse, 3 years old las
 hite spot in forehead, four white feet; valued at $\$ 15$
Wilson county-V. L. Polson, clerk. MARE-Taken up by s . W. Knoles, of Buralo.
december 14, 1895, one bay mare, 3 years old, star in FOR WEEK ENDING JANUARY 2, 1896. Wilson county-V. L. Polson, clerk.
 about 3 years old; valued at 820 .
Greenwood county-J. F. Hoffman, clerk. STEER-Taken up by C. C. Austin, In Shen Rook
p., November 4, 1895, one dun steer, Western brand covers nearly whole of left slde, crop off left ear;
alued at 815 . Falued at tits.
HORsee county-P. M. Humphrey, clerk. Horse-Taken up by G. B. Carilsle, one bay
horse, black mane and tail, shod in front; valued Lyo
Lent
Lyon county-C. W. Wilhite, clerk.
 red mith somemembrte soote, tubbed horns. branded
Lon IIght hip and Con right slde; varued at 815 . Pottawatomie county-Frank Davis, clerk. HEIFER-Taken up bV A. F. Kolterman, In M, M11
Creek to. (P. O. Onaga), December 26, , 8895, one red
 FOR WEEK ENDING JANUARY 9,1896 Shawnee county-C. T. McCabe, clerk.

 North Topeka, one bay kelding, 1 sear ola, sma
Mmpon navel; valued at 88.
Mare bearling mare, white
 HK1FEG-Tasen up by Benjamin F. Croasdale,
P. O. Topeka, one Hontein helfor,
both years oropped; valued at 812 years old past


 COL at 88 .
Come, one mouse-colored colt; valued
at
Wichita county-W. S. Place, clerk.
 one bay mare, 4 years old, white spot in forehead,
black mane and tall also one black mare coit, 2
years old; valued at $\$ 15$.

Chase county-M. K. Harman, clerk. STEER-Taken up by Gen. Drummond, in Dla-
mond Creek tp (P. K. Kimdale). December 10 . 1895 .

 coreet mule, fourteen
srands; valued at 810 .
Lyon county-C. W. Wilbite, clerk. COW-Taken up by G. W. Burtnett, In Agnes City
tp., November 2, 1895, one pale red cow, dehorned,
 November 1. 1895, one two-year-old steer, red whit
some white dehnned. norkor brands.
sTAER-By ARme, in Jackzon tr., ond two-searold steer. red with aome white, crop off left ear, two
silts in right ear, dehorned, no brands. VETERINARY SURGEON.
D ${ }^{\text {R. U. B. B. McCURDY, Veterinary Surgeon, Grad }}$ ada. Can be consurted on all diseases of domestic
animala at offoce or y mail. Ofilice: 114 West Fifth
Street. Topeka, Kas.


HENRY W. ROBY, M. D. SURGEON.

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ESTABLISHED IN 1889. Does a general tanning business, including robe
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book paper, it has hundreds of illustrations - wood ings. Its reading matter is interest-
ing, as much so for a man as a woman. and the children also are not neglected

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RIato Bullding, KANSAS CITY, MO.
is a vigorous feeder and responds well to liberal fertilization. On corn lands the yield increases and the soil improves if properly treated with fertilizers containing not under 7\% actual

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A trial of this plan costs but little and is sure to lead to profitable culture.
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## 4

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sleepers, ch compartment and palace The Callforncars and dining cars. sas City 9:10 a. m, datly.

## G. T. NiCHOLSON, G. P. A., Chteago.

0000000000000000000000000


ADAYSURE




## Che Oeterinatian.


QUESTION.-My cow, which had partial paralysis last spring, has been doing well and seems to be in good when she comes
Junction City, Kas.
Answer. - It is impossible to say what is best to do. If the cow is thriving the chances are in her favor, and she may never have the trouble again.

State of ohyo, City of Toledo. $\}$ bs.
Fbank J. Cheney makes oath that he is the senior partner of the firm of F. J. Cheney \& Co.. doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the
sum of ONE HUNDRED DOLLARS for each sum of ONE HUNDRED DOLLARA for each
and every case of Catarrh that cannot be oured and every case of Catarrh that cannot
by the ube of HALL's CATARBE Cure. . Sworn to before me and subscribed in my
presence, this fth day of December, A. D. 1886. $\{\underbrace{\text { I }}_{\text {EEAL }}\} \quad$ A. W. GLEASON. Hall's Catarrh Care is taken internally and acts directly on the blood and mucous surfaces of the F. J. CHENEY \& CO., Toledo, 0

Seld by Druggists, 750.
Business Ohance--A Good Income! We pay you to sell fruit trees. Stark
iarseries, Louisiana, Mo., Rockport, Ill.

Remember that we furnish the Breeder's Gazette and the Kansas Farmer, both papers, for the price of one, for a year for
only 82 . A splendid business investment.

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What you want is the through car ser vice offered between Denver and Chicago railroads, which is unexcelled by any other line. Magnificent Pullman sleepers, dining cars and chair cars, run through daily without change, Denver to Chicago via Kansas City.

## Seekers for Homes,

Who wish to start over again in some local ity where good land is plentiful and climate is favorable, should post themselves rela tive to the irrigated districts of Kansas, New Mexico and Arizona, the dirt-cheap farms of Oklahs.
To find out the facts address G. T. Nicholson, G. P. A., Monadnock building, Chicago, or J. E
Topeka. Kas.
And the Santa Fe is the best line to almost every part of the Great Southwest.

IIU8. We soll your Poultry, Veals,
Fruits and all produueg at hight
est prices. DAILY RETURNS. For
 Wm. A. Rogers. Robt. E. Cox. Fred W. Bishop.


Live Stock Commission Merchants. Rooms 265 and 266 Live Stock Wxahange Builaing,
Kansas City, Mo.


Moran, KANsAS, August 17, 1895,
The Onstad Chemical Co., Bloux Falls, Lumpyjaw Capsules by return mail. Onstad' P. 8.-I have used your remedy with. Wriant. This is an exact oopy of a letter recelved from
Mr . Wright, and without any moillottation of ours. P. O. BOE 1800 . For further partlculars see our advertisem
the KANSAS FARMER of December 18, 1896.

MANLY VIGOR



Horse Owners! -Try


Tho Saront Beat 日LIsTER ever used. Takes



 MARKET REPORTS. Kansas city Live Stock. Kansas Crys, Jan. 6.-Cattle-Receipts
since Saturday, 6,999 ; calves, 60: shipped Satsince saturday,
urday, 1,068 cattle, no calves. The market
was steady to was steady to str
resentative sales
 Horses-Receipts since Saturd.......11, shipped
Saturday, 177. The market is quiet. There a good supply on hand and buyers are comin in rapidly from all directions.

CHICAGO, Jan. 6-Cattle-Receipts, 16,500;
market steady'to strong: fair to best beeves $\$ 3.50 @ 4.75 ;$ stockers and feeders, $82.5003880 ;$
mixed cows and bulls, $81.50 @ 3.65 ;$ Texas, 8275 mixed cows and bulls, $81.50 @ 3.65 ;$ Texas,
@3.85.
Hogs-Receipts, 36,000 ; market active and Hogs-Receipts, 36,$000 ;$ market active and
generally 50 higher; 1 light, $83.6503 .821 / 3 ;$ rougb packing, $83.55 \sqrt{3}$ 65; mixed and butchers, 83.6 @3.85; heavy paiking and shipping,
3.771/2: pigs, 82.80 .33 .75 .
Sheep-Receipts, 15,000 ; market stronger; n tive, 82.00 Receipts, 15,000 ; mastern, $83.00 @ 3.25$; Texas 82.25@2.75; lambs, 83.50@4.75.

## ST. Lovis, Jan. 6.-Cattle-Recelpts, 4,010: market a shade lower: native steers, 83.50 d marike a shade lower: nat 4.7exas steers, 83.60033 .80 .

Hogs-Receipts, $8,0.0$ market 50 higher;
heavy, $83.50 @ 3.75$; mixed, $8320 @ 3.30$; 1 ight , 83.10 @3.65,
Sheep-Recelipts, 1,203; market strong.


Kansas City Graln.
Kansas Citx, Jan. 6.-Offerings of whea were light to-day and there was a good de. mand, with prices ruling a little higher early
though after the speculative market broks buyers refused to pay the early prices.
Recelpts of wheat to-day, 39 cars. a year aga

R | 10 cars. |
| :--- |
| $\substack{\text { Sales } \\ \hline \\ \hline \\ \hline}$ |

Sales were as follows, track, Kansas City:
Hars

 880 . Soft, No. 2 red, 1 car poor, $67 \mathrm{c} ;$; No. 3 red
1 car $64 \mathrm{c}, 1$ car $60 \% / 40$ No. 4 red, 1 car 580,1 car 550

 nally 41@47c;
No. 3, 1 car $52 / 2 \mathrm{c}$
Corn was in good demand with fair offering and spot prices were $3 / 0$ higher. No trading n January was reported. It was offered al
22.60 with $21 \%$ bid 15 cars.
cars.
Sales by sample on track, Kansas City: No.
 nominally 20021 c ; white, 1 car $22 \% \mathrm{c}, 1$ car $22 \% \mathrm{c}$. Oats continue very scarce. The few cars on
sale each day generally go to local buyers on sale each day generally go to local buyers
private terms. private terms.
Receipts of oa
Rec
cars.
Sale
cars. mixed, 1 car 17o: No. 3, nominally 16a161/4c:
No. 4, nominally $15 @ 151 / 9 \mathrm{c}$; no grade, nominall No. 4, nominaly 1tole, 1 car $18 / 2 / 2 \mathrm{c}$ : No. 3 white,
 No. 2, 87.50 @9.00; No. 3, 85.00@6.50; tancy
 @4.00.

St. Louls Grain.
Sr. Lours, Jan. 6 -Recelpts, wheat, 40,000 bu.: last year, 6,900 bu: corn, $, 30,007$ bu; i, last
year, 54,003 bu.; oats, 22,000 bu.: last year, 42,0 900 bu.: shipments, wheat, 10,000 bu.: corn,
Closing prices:
 58\%c; July, 58c seliers. Cor, Cash, 24\%o;
January, 24\%c; May, 25\%\%:!July, 26\%c. OatsCash, 17o bid; January, 17c; May, 191/3.

Kansas City Produce.
Kansas Crty, Jan. 6.- Butter-Creamery extra separator, 210 firsts, $181 / 2 \pi 191 / \mathrm{c}$ : dairy,
fancy, store packed, $13 \Omega 14 \mathrm{c}$; fresh, 10 d 12 c of grades, 8o; country roll, fancy, 12む14c; choice, grades,
10a12.
Eggs-S
Eggs-Strictly fresh candied stock, 180 per
Poultry-Hens, $61 / 3$; springs, $61 / 2$ a7o; roosters,
durs,
 blers, $61 / \mathrm{c}$ c; ducks, $71 / 2 @ 80 ;$ geese, fat, $61 / 2 \mathrm{c}$; pig
eons, 600 per doz Fruits-Apples,
$\begin{gathered}\text { Fruits-Apples, fancy, } \\ \text { choice, } 81.7502 .2502 .05 ; \text { common to good, } 81.00 @ 1.50\end{gathered}$ choice, 8
per bbl.

Kansas city Sheep Market.
(Spectal report, farnished by KNOLLIN \&
BOUTH, Kansas City stock yards.) The run of sheep was a littile freeer to-day but
was not large. The proportion of real deairable Was not larke. was smail. There were several
killing kinds
lots of fair to decent kiling grades of lambs,

JOHN PETRZILEK, praotioal furrier and man-
facturer of fine furs, sealskin garmenta nd trimminge, 826 Kanseas avenue, Topeka, Kas. Mats, rugs and buggy robes always on hand:
ak for geocial prioe list. Our current prices
 Raccoon........
Mnekrat.....
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Oposanm. Oposgum. $1 .$.
Priirie woif..
Otter Otter.....
Beaver..
DROVEP Conmission COMPANY, 5. sume ratas. MONEY LOANEL Feeders Furnished Market Reports Free.

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Live $\odot$ Stock $\odot$ Commission MHROFIANT.
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Buy grain and hay in oar 1ots on any ralliond in
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system from which the food products and manufactures of every department of the live stock industry



 his stook remains on the marker. Buyers
the purohase of stock oattele stock hogs ad
formation concerning Chloago markets.
N. THAYER, JOHN B. SHERMMAN, WALTER DOUGHTYY,

## The Kansas City Stock Yards <br> are the most complete and commodious in the West,

and second largest in the world! The entire railroad system of the West and Southfacilities for receiving and reshipping stock.

|  | Cattle and calves. | Hoga. | Sheep. | Horsies and mules. | Oars. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Official Recelpts, 1894 <br> Blaughtered in Kansas city <br> Bola to feeders. <br> Bold to shlppors. | $\begin{array}{r} \mathbf{1 , 7 7 2 , 6 4 5} \\ 869.66 \\ 808181 \\ \mathbf{8 , 6 7 7 , 9 8 6 5 6} \end{array}$ | $\begin{array}{r} \mathbf{2 , 5 4 7 , 0 7 7} \\ \mathbf{2 , 0 5 0 , 7 4} \\ 11,46 \\ \mathbf{2 , 5 3 0 , 8 9 6 8} \end{array}$ | 589,555 387,570 6,816 45,730 $\mathbf{5 0 3 , 1 1 6}$ | 44,287 $.28,803$ | 107,494 |

CHARCES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; S
cents per head. HAY, $\$ 1$ per 100 lbs. ; BRAN, $\$ 1$ per 100 lbs. ; CORN, $\$ 1$ per bushel.
NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.


## The Youltry Yard

## ATTRACTIVE FOWLS.

Brief Description of the
This breed was introduced into Eu rope by way of Constantinople some 40 years ago. In many respects the Sulans resemble the White Polish, but hey have shorter legs and more abun dant plumage. The latter is very white and flowing; on the head they have compact Polish tuft; the comb is only wo little points, and the wattles are very small. They have five toes on each foot. The fowls are non-setters, small eaters and layers of large, white eggs. They are said to be hardy when mature, but are difficult to raise. They

are very small and are kept chiefly as pets, being generally regarded as the most beautiful of all domestic fowls. World.

EGG-EATING HENS
A Plan by Which They May Be Cured of the Perniclous Hablt.
A correspondent writes: "It seems that too much cannot be said or done to prevent this worst of evils a hen can fall heir to. It is very disgusting to any poulterer, or even any person who keeps poultry. When I built my hennery I put in just a few nest boxes for the time being, until I had time to get more, and would not believe it took only two or three days to learn the habit of 'egg-eating.' They would quarrel over the nest and break the eggs, then all would run to have a piece, until at last my two largest pens were full of good-looking egg-thirsty hens, and were, I thought entirely ruined, for when I did give them more boxes they would pick a hole in the shell quite leisurely and eat the contents. What was to be done was more than I could think of for awhile; then I devised a plan which I thought would break some at least of the habit. I made nest boxes as follows: Eight feet long, 14 inches deep, and 11 inches wide, then divided it into eight nests, with one side of the box six inches high, so that when it was covered they had eight inches left to enter the nest; then I set them one foot from the floor. In there it was box to remove the eggs. In this secluded spot they would deposit their egrs, and only one hen could occupy eggs, and ond she hadn't room or light enouch to do much damare. This was enix weeks ago and to-day I don't think I ween a that will cat an cog. If I have a henterer who is troubled in like some poult manner will give this a trial I am quite manfident he will be amply repaid." Poultry Chum.

Saved by the Poultry.
Everything that usually goes to the swill barrel can be turned to more profit on the farm if it is put in proper condition for feeding the poultry. Po tato and turnip parings boiled are good to put with the mixed food. All table seraps make the very best of food; even the meat bones can be crushed, and will more than pay for the trouble in the increase of eggs. The buttermilk used in a scalding state or sour or swee milk the same add increased nourishment to the mixtures mentioned. The whey when curd is made can also be utilized the same way. Whole grain should be fed at evening. Wheat, bar ley, buckwheat, corn and rye are valued as respectively enymerated. The fowls
show a preference for corn, but if fed too liberally it will make the hens to at for profitable egg layers. Of course, excessive feeding of whent will have like tendency, but in not so quick or so tarked a degree.-Farmers' Review.

> SIMPLE RAT TRAP.

If Kept Leaded You Will Ha
th Rodents. Under this heading a correspondent of a poultry journal sends a description and sketch, here reproduced, of what he calls "the only perfect rat-trap, and very simple and inexpensive." Rats on some localities are a serious nuisance to poultry breeders, and a good trap is worth a good deal of money to
them. The contrivance is thus de-

scribed: Take a common box about a foot square and 15 inches long, bore a hole in each end with $11 / 3$-inch auger, about four inches up from the bottom, pan (or box) with meal mixed with arsenic, set in middle of box, as indicated by dotted line B; nail cover on, and you can set it anywhere without fear of chicks or fowls touching it Keep it.loaded all the time, and you will have no trouble with rats.-Australa sian.


##  <br> Just as yours will be if

 you continue using poor soap.
## Clarette Soap. <br> makes wash-day as easy as any otherday. Lessens

 the labor, makes the clothes white, and does nodamage. Thousands of women say so-surely they are not all mistaken. Sold everywhere. Made only by The N. K. Fairbank Company, St. Louis. 0000000000000000000000000000000000 it
## SPRAY YIE EMPIRE KING: <br> 



PULVERIZING HARROW, CLOD CRUSHER AND LEVELER. Adapted to all soils and all work. Crushes, cuts, lifts, pulverizes, turns and levels the soil in one operation. Made entirely of cast steel and wrought iron-practically indestructible.
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