PIPE STREET TO A

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PROSPECT FARM.—CLYDESDALE STALLIONS, SHORT-HORN CATTLE, POLAND-CHINA HOGS.
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H. W. MCAFEE, Topeka, Kas.

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VALLEY GROVE HERD OF SHORT-HORNS.— For sale, choice young bulls and helfers at reasonable prices. Call on or address Thos. P. Babst, Dover, Kas.

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A SHLAND STOCK FARM—Will sell for the next thirty days, thoroughbred Poland-China boars and B. P. Rock cockerels at greatly reduced prices. No boom prices here. Give me a trial and I will surprise you with prices for quality of stock. Yours for business, M. C. Vansell, Muscotah, Atch on Co., Kas.

### POULTRY.

HIGH-SCORING B.P. ROCKS, W.WY-andottes and Rose-comb B. Leghorns of the very best strains obtainable, for sale low. Score-card by Hewes or Emery with each fowl sold. P. C. BOWEN & SON, Cherryvale, Kas.

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All the leading strains. Thirty young cockerels and twenty-five pullets for sale. A 93-point bird at head of the haren. Eggs 22 per setting of thirteen. S. McCullough, Ottawa, Franklin Co., Kas.

## 1896 Hatch Ready to Ship.

I will continue to sell birds at from 50 cents to 51 each until my flock is disposed of. Partridge Cochins, S. S. Hamburgs, Brown and White Leghorns, Barred and White P. Rocks, Light Brabmas, and cookerels of Buff Leghorn and Buff P. Rocks, Single birds 51 each. My fowls have unlimited range and are hardy, well-matured and strictly first-class thoroughbred birds. A. H. DUFF, Larned, Kas.

LICE KILLER. Don't pay 50 and 75 cents per gallon for lice killer. I will send you a recipe for 50 cents to make it at a cost of about 25 cents per gallon. For killing lice by painting roosts, boxes, etc., it has no superior. The best disinfectant and disease preventive out.

A. H. DUFF, Larned, Kas.

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BERKSHIRES. H.B. COWLES. Topeka, Kas. I want to close out my spring boars this month.

BOURBON COUNTY HERD BERKSHIRES.

J. S. Magers, Proprietor, Arcadia, Kas. Correspondence invited. Satisfaction guaranteed



T.A.HUBBARD

Rome, Kansas, Breeder of POLAND-CHINAS and LARGE ENGLISH
BERKSHIRES. Two hundred head. All ages
25 boars and 45 sows ready for buyers.

## BERKSHIRES.

We offer choice selections from our grand herd, headed by a great imported boar. New blood for Kansas breeders. WM. B. SUTTON & SON, Russell, Kansas.

## BLUE MOUND HERD BERKSHIRE SWINE.

Herd boars Barkis 30040, Victor Hugo 41799. One hundred head. Young sows, boars and gilts for sale. Allen Thomas, Blue Mound, Linn Co., Kas.

## WYNDALE FARM HERD.



Registered Berkshires and B.P. Rock Chickens. Only the best stock for sale Eggs in season. Correspond-ence solicited.

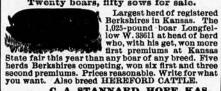
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For ten years winners at leading fairs in competition with the best herds in the world. Visitors say: "Your hogs have such fire heads, good backs and hams, strong bone, and are so large and smooth." If you want a boar or pair of pigs, write. I ship from Topeka. G.W.Berry, Berryton, Shawnee Co., Bas.

## LARGE ENGLISH BERKSHIRES.

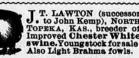
Twenty boars, fifty sows for sale.



C. A. STANNARD, HOPE, KAS.

### SWINE.

William of the Full



## BELMONT STOCK FARM

Geo. Topping, Cedar Point, Kansas.

Breeder of English Berkshire and Poland-China swine, S. C. Brown Leghorns, B. Plymouth Rocks, Mammoth Bronze turkeys and Imperial Pekin ducks. Write for prices. Farm six miles south of Cedar Point, Chase county, Kansas.



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DEALER IN

Chester Whites Exclusively.

Stock for sale. Visitors always welcome

## THE WORLD'S FAIR HERD

Of pure-bred POLAND-CHINAS are giving splendid satisfaction. I am selling tops 3 months old for \$12, either sex. Wilkes, Corwin and Tecumseh blood combined. Write. E. W. KEYNOLDS, Madison, Greenwood Co., Kas.

## Franklin County Herd Poland-Chinas.

Twenty boars ready for service, also twenty sows or ready sale at prices to suit the times. Inspec-ion and correspondence invited. E. T. Warner, Owner, Princeton, Kas.

## Standard Herd of Poland-Chinas.



L. NATION, Proprietor, Hutchinson, Kansa The breeding herd consists of the best strains of blood, properly mated to secure individual excellence. Stock for sale. Visitors welcome. Correspondence invited.

## PLEASANT VALLEY HERD REGISTERED POLAND-CHINASWINE

Westphalia, Anderson Co., Kas. Breeder of high-class pedigreed Poland - China swine. Herd headed by Guy Wilkes 3d 12131 C. Guy Wilkes is now for sale, also fifty choice April plgs. Write.

## Kansas City Herd Poland-Chinas

The future villa of Hadley Jr. 13314 O., the greatest boar of his age. I have pigs for sale now by Hadley out of Teoumseh Mortgage Lifter 32649 S. Order quick and orders will be booked as received. Farm nine miles south of Kansas City, on Ft. Scott & Memphis R. R. Postoffice Lenexa, Kas.

## W. P. GOODE, Proprietor, Lenexa, Kas.

## Farmington Herd Poland-Chinas

Twenty-five spring boars sired by Little Mc. 14992 S., he by Mc. Wilkes 1992 S.; Trinidad 30057 A., and Chief Kanlilska by Chief Tecumseh 2d All stock guaranteed as represented.

D. A. Kramer, Washington, Kas.

## TOWER HILL HERD Registered Poland-Chinas.

175 head, 30 brood sows. Herd boars are Black stop 10550 S.; U. S. Butler 13388 S.; George Free Trade 1053 A., and a grandson of J. H. Sanders 27219 O. Young boars ready for service and bred glits forsale. B. R. Adamson, Fort Scott, Kas.

### ROYAL HERD Poland-China Hogs and Barred Plymouth Rock

Chickens. My stock took first premium at the State fair this all. Have a good line of hogs and chicks for sale. WARD A. BAILEY, Wichita, Kansas.

## POLAND-CHINA SWINE.

We offer a fine line of brood sows, bred or not, as wanted, at prices in keeping with the times. Our glits are the get of Upright Wilkes and J. H. Sanders Jr. We will also sell a number of our herd sows; they are bred and registered. Some choice sows bred to Klever M. and some to Medium Pride. We will also sell Upright Wilkes or J. H. Sanders Jr. A rare opportunity to get excellent stock at low prices.

J. R. KILLOUGH & SONS,
Richmond, Franklin Co., Kansas.

### WILLIS E. GRESHAM. Quality Herd Poland-Chinas, HUTCHINSON, KAS.

HUTCHINSON, KAS.

Seven prizes World's Fair. Three on litter under 6 months. More than any breeder west of Ohio. Ten prizes Kansas State, twelve Oklahoma State, and four out of six in Texas in 1896. More than any single breeder this season. Darkness F. 73222 and Darkness F. 33d 23508, Bessle Wilkes 36837, and the sensational sweepstakes and first class winner of 1896. Bessle U. S. (Vol. 11 S. R.), one of the best sows living to-day. Darkness Quality 14361, Guy Unfortunate 23205, Darkness Wilkes (Vol. 11 S. R.), first in class in Kansas and Oklahoma and in herd in three States. Some good ones for sale, both sexes. Write me.

WILLIS E. GRESHAM,

Butchinson, Kas.

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## IDLEWILD HERD

SCOTCH SHORT-HORN CATTLE A choice lot of young bulls and heifers for sale. Also pedigreed Poland-China swine. Geo. A. Watkins, Whiting, Jackson Co., Kas.

## SHANNON HILL STOCK FARM

G. W. GLIOK, ATCHISON, KAS.

Breeds and has for sale Bates and Bates-topped
SHORT-HORNS. Waterloo, Kirklevington, Filbert. Cragg, Princess, Gwynne, Lady Jane end other
fashionable families. The grand Bates bulls Winsome Duke 11th 115137 and Grand Duke of
North Oaks 11th 115735 at head of the herd.
Choice young bulls for sale now. Visitors welcome.
Address W. L. CHAFFEE, Manager.

### SWINE.

## Thoroughbred Duroc-JerseyHogs Registered stock. Send for 44-page catalogue, prices and history, containing much other useful informa-tion to young breeders. Will be sent on receipt of stamp and address. J. M. STONEBRAKER, Panola, Ill.

Duroc-Jersey March Boars Large size, heavy bone, good colors, highly bred, all registered, ready for service, shipped for inspection. You see them before you pay for them. Describe what you want and don't fail to get description and prices. J. D. STEVENSON, New Hampton. Harrison Co., Mo.

## LAWN RIDGE HERD Poland-Chinas.

130 head, all ages. 100 spring pigs, sired by Young Competition 15082 S., Kansas Chip 15083 S. and a grandson of J. H. Sanders. Write or come. J. E. Hoagland, Whiting, Jackson Co., Kas.

## DIETRICH & SPAULDING,

## Richmond, Kansas HomeofthePoland-China

Prize-Winners.

Don't be too late. Only a few choice boars left but prices remain right. Some fancy gilts now safe in pig to the prize-winner, Silver Chief. Don't miss this chance—only a few gilts bred to Noxall Wilkes this season. Write us soon.

## Clover Leaf Herd Poland-Chinas.

We Have the Best. Nothing Else.

J. H. Sanders Jr. 14953 S. 35089 O. heads our herd.

Three of his get sold for \$865; entire get at sale averaged over \$200; get during his term of service exclusive of public sale brought over \$2,700. Thirty-eight pigs getting ready to go out. Among our 14 brood sows are Black Queen U. S. Cowin 28801 S., Sliver Bar U. S. 30884 S., Black Queen Hadley 1st 36574 S., Annie Black Stop 38631 S. and Ruby Rustler 4th 36355 S. Write, or, better, visit the herd.

G. HORNADAY & CO., Fort Scott, Kas.

## Commercial Collections a Specialty.

H. C. ROOT, Attorney at Law, 104 Sixth Ave. East, Topeka, Kas. Practices in all State and federal courts.

## ∟wes Bred.

Fifty selected open-wooled two-year-old New Mexico Ewes, bred to large, fine registered rams, for sale.

Kirkpatrick & Son, Connor, Kas.

## $\mathbf{NEW}$ MULE 🏧 HORSE

## MARKET.

20d and Grand Ave., Kansas City, Mo.

Wesl third b futur, our sourentire removal to Twenty-Grad, where we will be found in dry obuy or sell mules and horses. We busine about for hor to Wer, the mines and wales and mule wrethird and Grand Ave. made a "lig test cash price paid the mines the mines and makes and mule write the mines and mule passes our door."

pound of g GHAM BROS the Polanda

more than 'ual or greater capac-Oth ity rng | gain. In

## Agricultural Matters.

OFFICIAL KANSAS OROP STATISTICS.

The Kansas Board of Agriculture has issued a final bulletin showing yields of the more important crops grown in the State in the year 1896. The total yield of winter wheat is 27,-153,365 bushels, or 11,641,124 bushels more than in 1895. Its total value is put at \$13,016,229. The average for the entire State being eight and onehalf bushels. The corn crop is 221, 419,414 bushels, or 19,962,018 bushels more than last year, the average being 28.03 bushels per acre. Its value is \$35,633,013, as against \$46,189,772 for the previous year's crop. Of oats the yield is 19,314,772 bushels, against 31,-664,748 bushels the year previous. The yield per acre was but 13.06 bushels, and the value of the crop \$2,706,652. Spring wheat shows a yield of but 601,-523 bushels.

The combined value of winter and spring wheat, corn and oats raised the present year is \$51,596,859, and that of the same crops in 1895 was \$59,273,079.

The following table gives the yields

	Winter wheat.		rn.	Oat	8.
	Bushels.	Bus	shels. 500, 124 55, 928 69, 154 78, 620 76, 754 04, 286 32, 714 71, 475 54, 466 110, 915 1175 124, 580	Bush 240	
rson	20,286 11,916	1,6	55,928	160	530
son	235,386	2,9	78,620	30	,618 ,500
	951,200	, 6	76,754	75	,840
1	99,244 951,200 38,328 593,292 154,908	6,1	32,714	522	,360
	154, 908 54, 882	5,5	71,475	281	, 152
uqua	221,494	1,6	10,915	68	. 448
tee	221,494 397,350 5,082			417	, 900
ne	17,10		31,850 93.685	597	, 320 7, 30 1, 190 1, 72
	17,104 366,390 262,47 61,110	1 4 1	MR 432	454	, 19
	61,11	2,	197,293 93,270 949,184	30	1,40
he	10,17 748,71 267,61		949, 184	37	1,40 3,17 2,84
d	267,61 67,64		539,824	6	2,64 2,67 3,55
on	624 94	9 2,	561,706 139,657	38	3,55 7.77
an	182,85	0 2,	615,844	21	7,77
ds	120,07	2 9	940 468		1,27 $2,48$ $1,34$
	485,0	5	585,484 156,497 151,078 17,277 94,017		11,34
rth	000 1	1 1,	17.277	1	$\frac{18}{52}$ , $\frac{6}{32}$
y	118,1	96	94,017	9	$\frac{31.3}{02.8}$
lin	109.1	68 1	, 358, 490	į -	96,9 $18,2$
	89,5	56	62,62	5	$18,2 \\ 14,4$
am		51	2,54	0	1.0
	9,0	36	9,63	ő	6,4
ey wood	29,1	06 8	94,017 ,229,675 ,358,490 62,625 905,74 2,54 9,63 9,11 3,914,65	8	6.0
lton	160		2.174.74	4 1	54,1
er	802,	96	6,10	(t) 1 4	54,1 200,0 15.8
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a	39,	689	271,6 1,877,2 10,3	36	685,
te	40,	153	2 489 1	26	$\frac{1}{325}$
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a	18	360	1,879,2	555	51.
	22	572	3,205,	308	91
n	1,329	500	9,012,	113	769 862
n nall erson	1,611	624	3,033,	784 125	423
D		,096	2,591,	085	273
ni hell	354	,440	3,533, 2,014.	166	173 266 237
tgomery	24	,016	1,838,	950	237
on	170	1,790 0,247 2,240 2,196	8,379,	797	633
aha sho	22	2,240	8,379, 2,057, 90, 1,701	718	37
on	21	1,275	1,701	284	7
ge	1	1,275 1,275 0,227	3,038, 2,294	Unit	15
orne	1 53	5.860 [	2,149	,047	14
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wlins	5%	3,140	887 6,151 6,261	,652	27
ublic	6	13,825 22,732 59,520 76,318	6,261	,940	1
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ssell		97,696 61,339	1.69	1,646 9,750 2,800	2
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ward awnee .		15,408	3,62	8,638	1
eridan		32,411 $11,358$	80	7,815	
erman .		[84,520]	0,80	4,744 5,924	1
afford		281,304	. 1,8	1,765 3,915	
anton evens		170 100	. 2 0		
mner	2,	172,430 $133,908$	3,6	38,754 $49,128$	
ego		172,430 133,908 162,720 54,22	0 7	49,128 81,288 15,750	3
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		000 00	7,8	or ,06	3
shingt	on	273,09	0 1,0	94	5
shingt hita.	on	273,09- 100,41 138,60 30,91 82,34	8 2,5	24: 04:	2

WINTER W The total acreage n wheat is reported a than one year ago; :

per cent. in Bourbon, while forty-nine counties show a decrease from 2 per cent. in Woodson to 87 in Stanton. With few exceptions the counties having the smaller acreages sown show increase and are located in the eastern half of the State. The average price for the year is given as 65 cents per bushel. Prospects and conditions of this year's seeding are quite invariably reported excellent; perhaps never more satisfactory at the time of year. CORN.

The price of corn now being con-tracted to feeders and others is from 12 to 18 cents per bushel, with an average in the corn-raising, cattle-feeding counties of between 15 and 16 cents. Forty per cent. of the crop is likely to be sold at these prices before January. The number of cattle to be fattened is about the same as last year.

OTHER CROPS. The acreages and yields of other crops show as follows:

crops show as follows:	Acres.
Dec bushels 998,897	110,397
Rye, bushels 1 169,539	179,092
Barley, bushels	1,265
	108,383
Inigh notatoes, bushels	3,558
Gester beens bushels 34,701	4,698
Castor beans, bushels 34,701	20,422
Sorghum for syrup, gallons 1,415,820	360,528
Sorghum for forage of secu	269
	113
Tramp nounds	
Helip. pounds 169,400	243
	333,370
Millet and nungaritan, come on one	14,67
	373,05
17 Mr coun tone	
Tame hay, cons. 5.341,169	
Prairie hay, tons	
m amout	

LIVE STOCK. The numbers (in March) and the total values of the various classes of live

tock averaged for the	e year	are as ior
Ows: Horses Mules and asses Milch cows Other cattle Swine 1	100,000	\$21,171,025 2,896,888 13,134,412 27,411,447 428,254 8,523,878
Total value		\$73,565,899

Increase in value over last year, \$626,641.

Sheep have increased 45,716 head swine 166,870, and other cattle 46,388 head; horses have decreased 5,948, mules and asses 1,721, and milch cows 2,179 head below the numbers in 1895.

Of hogs over six months old there is reported a slight increase over the same time last year, perhaps 2 per cent., and of pigs from 4 to 5 per cent. ALFALFA AND KAFFIR CORN.

This year's increase in the acreage of alfalfa is put by correspondents at 23 per cent. Assessors' returns show the year's area in Kaffir corn as 373,058 acres, a gain of 188,860 acres, or 102.53 per cent.

## About Weeders.

EDITOR KANSAS FARMER:-One of your subscribers in Cloud county, Kansas, has written me, asking for information about weeders, but I have lost his letter and cannot reply privately, and when he sees this, I trust he will pardon my seeming neglect. He wants a description of a weeder, and asks if a two-horse machine seventeen feet wide would be practical.

A weeder is not a harrow, but is a one-horse, seven and a half foot wide garden rake, with thirty-five teeth, two and a half inches from center to center, each thirty inches long. The work it does is exactly similar to the then it would be too clumsy to handle. Many Michigan men use a light homemade harrow, cutting about twenty-five feet wide, with teeth made of the largest size wire spikes.

I made my own weeder, and I would not trade it for any of them. I took old rake teeth and cut them up and straightened into weeder teeth, thirtytwo inches long, sharpened one end like a carpenter's chisel, and turned over at a right angle two inches of the other end. Eighteen teeth must have this turn made backwards from the bevel of the other end, and seventeen teeth must have this turn made forward, as the teeth are in two rows, eighteen in one and seventeen in the other. I first took a 2x6-inch soft pine

as light as possible, then one inch from cent. in Sheridan and Wabaunsee to 36 the edge I bored eighteen three-eighthinch holes, five inches apart, and one inch from the other edge I bored seventeen more the same distance apart, but alternate with the other holes; this gave me thirty-five holes two and one-half inches from center to center. Several holes were now bored crosswise through this stick in which to put bolts to hold this rake head together. Then I ripped the piece into three pieces, running the saw one inch from each edge, or directly through the holes made for the teeth. The middle section of this rake head had places burned in it to allow the teeth heads to counter sink into, then the teeth were put in place and the three pieces of the head bolted together. A 1x6inch board was bolted down over the heads of these teeth and on top of the rake head. Another 1x6-inch board had holes bored in it similar to those in the rake head, except they were half-inch holes instead of three-eighthinch holes, and this board was slipped over the teeth and suspended by chains so as to hang about eight inches above the lower end of the teeth. This board acts as a check-bar and prevents the teeth bending out of line, but at the same time allows vibration. This last board should be of as light stuff as possible, and the center should be cut out to reduce weight.

If I were to build another weeder, I should bore holes crosswise in the center strip of the rake head to receive the ends of the rake teeth, and this would do away with the 1x6 inch board that is bolted on top of the rake head, and make the weeder some lighter, as the weight should be eighty pounds, while mine is 100 pounds. Two light shafts are bolted and braced to the rake head, in such a way that the front end of the shafts will be from six to twelve inches above a right angle to the perpendicular of the teeth, according to the height of the horse to be used. A light single-tree is fastened to the center of the rake head. A weeder cannot be used in soil full of corn stalks, neither will it work in stony or lumpy land, but when soil has been put in perfect tilth, the work done by the weeder beats anything I ever

I generally harrow my potatoes twice before they are up, then use the two-horse cultivator with the "eagle claws" as soon as the row can be traced. In a follow the roller if possible. The weeder should be used only on a bright, clear day when the barometer is above normal, as then it will annihilate all the small weeds, while if used on a cloudy day with a low barometer, the weeds will not be killed but simply transplanted. If a mistake is made here, the weeder cannot be again used at once, as it will run too deep. I have merely touched on a science in cultivation here, that will afford deep study, and which few farmers ever thought of. All harrowing to kill weeds, all weeding and cultivating should always be done on a clear day with a rising barometer, in order to do the best The weeder will kill all the small

will not destroy large, strong weeds; as, if it did, it would by the same rule work done with a garden rake, destroy the growing crop. The teeth only a little deeper and much will run in between the tops in a hill of unusual, but it is evident this potato wider. A seventeen-foot two-horse potatoes and do just the same work machine would not work unless one's fingers would do if drawn through the ground were perfectly level, and the hill, and was made to imitate the leads me to remark that the Ka work that could be done with the hand. Farmer and Early Kansas always grow When all conditions are favorable, the dry and mealy in Kansas, while the job done in one day with a weeder would equal that of fifty to 100 men with the hoe, and by all odds do a much better job. Few men who see a weeder would allow it in their crop, as they think it would pull up and destroy the crop, but it will not do as much harm as a man would accidentally with a hoe, and will do so much better job as to make the man's work not in it. The weeder can be run until the potato tops are so bushy as to not easily pass between the teeth. It is a machine that will pay for itself with a single day's work, and a machine that no potatogrower should be without, but if not run properly will be of little account. There was only one day last spring ties planed it thoroughly so as to make it when the atmospheric conditions were to 200 little potatoes, and perhaps the

## **A Sufferer Cured**

"Every season, from the time I was two years old, I suffered dread. fully from erysipelas, which kepi growing worse until my hands were almost useless. The bones softened so that they would bend, and several of my fingers are now crooked from

this cause. On my hand I carry large scars, which, but for

## **AYER'S**

Sarsaparilla, would be sores, provided I was alive and able to carry anything. Eight bottles of

Ayer's Sarsaparilla cured me, so that I have had no return of the disease for more than twenty years. The first bottle seemed to reach the spot and a persistent use of it has perfected the cure."-O. C. DAVIS, Wautoma, Wis.



AYER'S PILLS Promote Good Digestion.

suitable for running the weeder, and I stopped the corn-planter to run it, much to the wonder of my neighbors. CLARENCE J. NORTON.

Morantown, Kas.

A Good Late Potato--Production of Seedlings.

EDITOR KANSAS FARMER:-Mr. J. J. Achenbach, of Washington, Kas., planted one medium small tuber of the new potato named in honor of the KANSAS FARMER, and here is his re-

port:
"The total yield from the single tuber was thirty-seven pounds, three pounds being small. The largest tuber weighed I pound and 1 an ounce; the next largest weighed 15 ounces; six largest weighed 4 pounds; twelve largest weighed 7 pounds. The largest was 72 inches long and averaged few days the weeder is used, and should 7 inches in circumference. Half the number of hills were twice washed out, and this accounts for the small tubers, as they grew above the ground on the vines. I am very much pleased with the Early Kansas. I am raising Early Ohios and Carman No. 1 also. The Early Kansas greatly outyields the Ohios under the same conditions. While my Ohios are 'A 1,' tip-top in every respect, they are no comparison to the Early Kansas for table use."

From the above report it will be seen that the season was favorable for a late potato, as this is the best report yet received for the Kansas Farmer potato. To raise thirty-seven pounds from a single small potato shows an enormous yield. If a bushel contained 200 such potatoes and each one yielded weeds between and in the hills, but thirty-seven pounds, the yield for the bushel would be 7,400 pounds, or 123 1-3 bushels of potatoes, or about 950 bushels per acre. Of course, this yield is

Speaking of the quality of potatoes Ohio contains 83.03 per cent. of water, or only 16.97 per cent. of dry matter. This has just been proved by the Virginia Experiment Station and is reliable. I grow Ohios every year, but I never offer them for sale for seed, as I cannot recommend them for a table potato, as compared with others I have

Mr. A. asks why variations in shape occur in seedling potatoes. When we plant potato ball seed, we generally do so in a hot-bed, and, as a rule, each ball will produce many different varieties, but each plant will grow little tubers that are all of one variety, yet of many different shapes of the same variety. Often a plant will have fifty marble. These little tubers are again followed from November 7 until Januplanted in the hot-bed and another crop grown the same year. From this last crop, a crop is grown in the open air, and this is the first one can tell about the yield and quality. Now, when we select the little tubers to again plant, from the first crop, each tuber on a single stalk will produce a crop exactly similar to itself, both in shape and variety; hence, if we select three or four tubers from the same plant, they will all be the same variety, but will produce as many different types of the same variety. In two of my new seedlings-the Norton Nos. 2 and 3-only one of each was saved and then one again from this crop, and as a result this year's crop, or the third from the seed, produced tubers all exactly alike in every respect, and this makes them the handsomest potatoes one could possibly grow. Of course, this plan makes a new potato very expensive, but all know the true value of new blood and should help pay for it.

CLARENCE J. NORTON. Morantown, Kas.

## The Stock Interest.

THOROUGHBRED STOCK SALES.

Dates claimed only for sales which are advertised or are to be advertised in this paper.

JANUARY 20, 1897.—D. A. Kramer, Poland-Chinas,

Washington, Kas
FEBRUARY 1, 1897.—Risk & Gabbert, Poland-Chinas, Weston, Mo.
FEBRUARY 2, 1897.—B. R. Adamson, J. M. Turley
and G. Hornaday & Co., Poland-China brood sows,
Fort Scott, Kas.

### KAFFIR CORN, CORN AND SOY BEAN MEAL FOR PIGS.

From Bulletin No. 61, by Prof. C. C. Georgeson, Farm Department Kansas Experiment

An experiment with twelve pigs, divided into four lots of three pigs each, was carried out during the winter of 1895-96. The object of the experiment was to test the value of Kaffir corn meal and of soy bean meal as food for hogs in comparison with corn meal.

Character of the Pigs.-Eight purebred Berkshire barrows were used in this experiment and four pure-bred Poland-China gilts. They were nearly of the same age; six of the Berkshires were farrowed May 21 and were of the same litter; two of the Berkshires were a little younger, being farrowed June 17. Three of the Poland-Chinas were of one litter, farrowed May 24, and one Poland-China was farrowed May 3. The average weight of the pigs when the experiment began was 63 pounds, the lightest being the two Berkshires farrowed June 17, which weighed 52 and 54 pounds respectively, and the heaviest being two of the Poland-Chinas, which weighed 75 and 77 pounds, respectively, and the others falling between these extremes.

Piggery and Conditions of the Experiment.-The piggery where the experiment was carried out does not present the most favorable conditions. It is a small stone structure which forms a wing to the main barn, and lighted by a skylight on the north side of the roof. The pens are 7x9 feet, provided with cement floor, but there is no yard attached to them. The pigs were con fined to the pens. Each pig was given a separate pen and fed individually throughout the experiment. Record was kept of the feed eaten by each pig, and the gain determined by weekly weighings.

The Feed.-As stated, the feed consisted of Kaffir corn, corn and soy beans. The Kaffir corn was of the red variety. All three feeds were ground and soaked before they were fed, the feed for the next day being put to soak in the evening when the last feed was given. They were fed three times daily, namely, at 6:30 a. m., 12 m., and at 5 p. m. Part of the feed was thus soaked only thirteen to fourteen hours, while part of it was soaked from six to twelve hours longer. In addition to the feed, each pig was furnished with a box of wood ashes and salt, and some fine soft coal was put in the pens occa-

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sionally. The experiment began November 7 and continued until March 12. The Kaffir corn meal and lot III. exclu- made a total gain of 547 pounds, or an Lot II. was fed on a ration consisting gain. In this case, then, the better

largest may be as large as a small sively on corn meal, and this plan was ary 23. By that time it was found that the gains from these two lots continued so light that it seemed wellnigh impossible to fatten them on this diet, and the feed was, therefore, changed from pure Kaffir corn and corn meal, respectively, to two-thirds of these grains and one-third of shorts. This change improved the gain some, but not to any marked extent. Lot II. two-thirds Kaffir corn meal and onethird soy bean meal, and lot IV. was in like manner fed on two-thirds corn meal and one-third soy bean meal. The results of this treatment are set forth in comprehensive tables. Summaries only are reproduced in the KANSAS FARMER.

Tables.-Tables I. to IV. show the weight of each pig in the respective lots at the beginning of the experiment, and the gain from week to week, and finally the total gain and the average daily gain of each pig, as well as the total and average of the lot as a whole. They, further, show the weight and cost of feed from week to week, with the totals of these items at the end of the experiment; and finally, the five last columns in each of these tables show the number of pounds of grain eaten for each pound of gain, the increase in gain of the lot from week to week from November 7, the average daily gain of the lot from November 7, the average daily gain per head from November 7, and the cost per pound of gain from November 7. At the bottom of the table there is also a summary of these items, which will show the main points at a glance.

Lot I.-Feed, Kaffir Corn Meal. Lot I.—Feed, Kapir Corn Medi.

Grain eaten, 1,187.81 pounds,
Total gain, 126 days, 191 pounds.

Average gain per head, 63.66 pounds.

Average daily gain of iot, 1.51 pounds.

Average daily gain per head, 50 pound.

Average cost per pound of gain, 2.54 cents.

Total cost of feed, \$4.865.

Grain eaten per pound of gain, 6.21 pounds.

Average cost of feed per head, \$1.621.

Grain eaten per pound of gain, 6.21 pounds.

Grain eaten per pound of gain, 6.21 pounds.

Lot II.—Feed, Kaffir Corn Meal two-thirds,
Soy Bean Meal one-third.

Grain eaten, 2.166.42 pounds.
Total gain, 126 days, 547 pounds.
Average gain per head, 182.33 pounds.
Average daily gain of lot, 4.34 pounds.
Average daily gain of lot, 4.34 pounds.
Average cost per pound of gain, 3.56 cents.
Total cost of feed, \$19.497.
Average cost of feed per head, \$6.499.
Grain eaten per pound of gain, 3.96 pounds.

Lot III.—Feed, Corn Meal.

Grain eaten. 1.476.66 pounds.

Lot III.—Feed, Corn Medt.

Grain eaten, 1,476.66 pounds.
Total gain, 126 days, 306 pounds.
Average gain per head, 102 pounds.
Average daily gain of lot, 2.42 pounds.
Average daily gain per head, 80 pounds.
Average cost per pound of gain, 1.97 cents.
Total cost of feed, \$6.034.
Average cost of feed per head, \$2.011,
Grain eaten per pound of gain, 4.82 pounds.

Grain eaten per pound of gain, 4.82 pounds.

Lot IV.—Feed, Corn Meal two-thirds, Soy Bean Meal one-third.

Grain eaten, 2,047.57 pounds.

Total gain, 126 days, 554 pounds.

Average gain per head, 184.66 pounds.

Average daily gain of lot, 4.39 pounds.

Average daily gain per head, 1.46 pounds.

Average cost per pound of gain, 3.32 cents.

Total cost of feed, \$18.426.

Average cost of feed per head, \$6.142.

Grain eaten per pound of gain, 3.39 pounds.

Attention is called to the fact that

Attention is called to the fact that the soy bean meal is valued at \$2 per 100 pounds, while shorts have but a value of 80 cents a hundred. Kaffir corn meal and corn meal are valued alike at 35 cents per 100 pounds. The soy bean meal has no market value. The beans were raised on the college farm, and the estimate put on the meal is doubtless too high in comparison with other feed stuffs. This, of course, increases the cost of the gain of the lots in which soy bean meal forms part of the ration. As may be seen from the summaries, the average cost per pound of gain at the close of the experiment of lot II. was 3.56 cents and of lot IV. it was 3.32 cents. If the price of the soy bean meal were reduced to \$1 per 100 pounds, the cost of the gain of lot II. would be 2.24 cents per pound, and of lot IV. 2.09 cents per pound, which would perhaps be more equitable.

But the cost of the gain is not the most important feature of the present experiment, but rather to see how the gains of the several lots compare on the ration furnished. In this respect there is a very marked difference. Thus, lot I. fed on Kaffir corn meal, and, part of the time, shorts, gained a total of 191 pounds in 126 days, or an average of just half a pound per day per head in that period. Lot II., also fed on Kaffir corn meal, but with the addition of one-third by weight of soy bean meal,

average daily gain of 1.44 pounds per head. But it should further be noted in this connection, that lot I., fed on Kaffir corn meal, required 6.21 pounds grain to make a pound of gain, while lot II. made a pound of gain on 3.96 pounds of the mixture of Kaffir corn and soy bean meal. When we compare the total grain eaten by the two lots, the story is a different one. Lot I. ate 1,187.81 pounds grain, while lot II. ate 2,166.42 pounds-not quite twice as was fed all through the experiment on two-thirds Kaffir corn meal and onefore, ate more, and consequently gained

Nearly the same relation exists between lot III., fed on corn meal and shorts, and lot IV., fed on two-thirds corn meal and one-third soy bean meal. Lot III. made a total gain of 306 pounds in the 126 days, while lot IV. gained 554 pounds, a difference in favor of the soy bean meal of 248 pounds. Lot III. required 4.82 pounds of grain to make a pound of gain, while lot IV. required only 3.69 pounds. But when we compare the total grain eaten, we find that, as in the former case, the soy bean meal had a stimulating effect on the appetite, so that while lot III. ate a total of only 1,476.66 pounds corn meal and shorts, lot IV. ate a total of 2,047.57 pounds of corn meal and soy bean meal. It is doubtless true that, while the greater amount of feed consumed by lot IV. is largely responsible for the increased gain of this lot, the credit of the gain is not due solely to the quantity, but to the quality as well. In the case of lot III., which was fed on corn meal exclusively during eleven weeks and two-thirds corn meal and one-third shorts for seven weeks, it had required at the close of the experiment 4.82 pounds feed to make a pound of gain. If the same ratio between gain and feed were applied to lot IV., this lot should have eaten 2,670 pounds feed to account for the gain it made, on the supposition that the better gain is due solely to the greater quantity of feed; or, if you look at it another way, lot IV. gained 248 pounds more than lot III., but it ate only 571 pounds more than lot III. This would make the ration in excess of feed and gain of lot IV. over lot III. stand as 2.3 pounds feed is to 1 pound of gain, whereas the figures show that that lot required 3.69 pounds of feed for each pound of gain. The difference in these ratios represents, so to speak, the better quality of the feed as compared with the feed of lot III.

The same holds true of lots I. and II. Lot II. ate 978 pounds feed more than lot I. but it gained 356 pounds more than lot I. The ratio of gain to feed in this excess over lot I., is as 1 is to 2.7—not greatly different from that in the excess of gain and feed of lot IV. over lot III.; but lot II. required 3.96 pounds feed to make a pound of gain, which is 1.25 pounds more than the ratio in the excess gain; in other words, one-third of the gain may be ascribed to the difference in quality of the feed and twothirds to the difference in quantity.

If we next compare the effect of Kaffir corn meal with the corn meal, as fed to lots I. and III., respectively, we find that the corn meal produced the best gain. Up to January 23 neither lot was fed any shorts (see tables I. and III.), but on that date lot III. had gained 74 pounds more than lot I., and it had also eaten 232 pounds grain more than lot I. Up to that date it had required lot III. 4.88 pounds corn meal to quired 6.5 pounds Kamr corn me make a pound of gain. With the addition of the shorts to the rations of both lots in equal proportions, after January 23, the gains improved slightly, but they were not satisfactory in either case. Before the shorts were added, it required 1.62 pounds more of Kaffir corn to make a pound of gain than of corn, and at the close of the experiment it had required 1.39 pounds feed more for lot I. than for lot III. to make a pound of gain.

On the basis of the gains of these two lots, red Kaffir corn proved to be decidedly inferior to corn as a pork-producer. But, as we shall see presently, the very poor gains of these pigs were due, at least in part, to the individuality of some of the pigs.

# Vervous

why they get tired so easily; why they do not sleep naturally; why they have frequent headaches, indigestion and

Nervous Dyspepsia. The explanation is simple. It is found in that impure blood feeding the nerves on refuse instead of the elements of strength and vigor. Opiate and nerve compounds simply deaden and do not cure.

Hood's Sarsaparilla feeds the nerves pure,
rich blood; gives natural sleep, perfect digestion, is the true remedy for all nervous troubles.

# Hood's Sarsaparilla

Isthe One True Blood Purifier. All druggists. \$1.

Hood's Pills cure Liver Ills; easy to perate. 25c.

of two-thirds Kaffir corn meal and onethird soy bean meal, and lot IV. was fed on a ration of two-thirds corn meal and one-third soy bean meal. These rations remained constant throughout the experiment. In both cases the pigs made excellent gains, and, remarkably enough, the two lots came within seven pounds of making equal gains. Lot II. gained 547 pounds and lot IV. 554 pounds, but lot II. ate 118 pounds more than lot IV.; so that in this case also the Kaffir corn was not quite equal to corn, although the soy bean meal almost obliterated the dif-

All lots were alike in that they made the most rapid gains and gained more in proportion to the feed eaten at the beginning of the experiment, and as the feeding progressed it gradually required more and more feed to make a pound of gain. It has been pointed out in previous bulletins that the same law also governs the gains of steers. It has already been stated that each

lot was made up of two Berkshire barrows and one Poland-China sow. All the lots were, therefore, alike in com-position. Mcreover, the pigs were nearly alike in age and weight when the experiment began. The differences which developed under similar creatment may, therefore, fairly be ascribed to differences in individuality. The most noted difference occurs in lot I. The two Berkshire barrows gained respectively but 23 and 18 pounds, while the Poland-China sow, under the same treatment, gained 150 pounds. I can offer no explanation for this, except it be that the Berkshires were inferior feeders to the Poland-Chinas. It is usually supposed, and in fact is ordinarily true, that open sows do not gain as well as barrows. In this case the sow made a fairly good gain, while the barrows made very inferior gains. The supposition that the Berkshires were inferior feeders in this case is borne out also by the results of lots II. and III., in which the Poland-China sows in like manner made better gains than the Berkshire barrows, and in case of lot IV. the sow fell but little behind the barrows. Now, if the Kaffir corn could produce a gain of 150 pounds in a Poland-China sow, with a consumption of but 4.47 pounds grain for each pound of gain, as shown in the table in the bulletin, the question arises whether it is fair to blame the Kaffir corn for the poor gains of the Berkshires and of the lot as a whole. make a pound of gain, while it had re- If it possessed qualities which would make one hog gain well, the meal to the other hogs must have possessed the same qualities, but the hogs did not possess the qualities necessary to utilize the nutrition this feed contained.

The indviduals in lot II., which were fed on a mixture of two-thirds Kaffir corn meal and one-third soy bean meal, made on the whole satisfactory gains, as already noted, and the two Berkshire barrows gained respectively only 181 and 161 pounds, while the Poland-China sow gained 205 pounds. They ate also less, however, than the sow did. One of the Berkshire barrows made a pound of gain on 3.8 pounds of the mixed feed, and the other made a pound of gain on 4 pounds of feed, while the Poland-China sow required slightly more than 4 pounds for each pound of

gain of the sow pig was due to the fact that she had a better appetite than the barrows had, and, indeed, the same holds true in lot I., where the sow ate considerably more than twice as much as either of the barrows.

Lot No. III. shows the same phenomena. The two Berkshire barrows gained respectively but 75 and 48 pounds, while the Poland-China sow gained 183 pounds. This is again due to the delicate appetite of the Berkshires as compared with the Poland-China. One of the barrows ate 368 pounds of feed and made one pound of gain for each 4.91 pounds of meal. The any of the others-and made a pound of gain for every 4.19 pounds of meal eaten. The Poland-China sow here made a normal gain. A pound of gain on four pounds of corn for any considerable period is a good gain. That the Berkshires did not do so well must be ascribed to the fact that they did not eat as much.

The individuals in lot No. IV., as already noted, made almost equal gains, and they consumed also nearly equal quantities of feed. In this case the two Berkshire barrows gained respectively 13 and 16 pounds more than the Poland-China sow, while they ate but 25 and 2 pounds respectively more than she did. The mixture of twothirds corn meal and one-third soy bean meal seemed to have suited the Berkshires exactly, and the gains of the barrows compared with the sow are more in accordance with common

## Irrigation.

Conducted by Hon. M. B. Tomblin, Goodland, Kas.

### THE CALIFORNIA FRIEND'S OBSER-VATIONS.

In the last issue of the FARMER appeared a contributed article, under the title of "The High Plains of Western Kansas," in which the author drew conclusions the facts will not bear out. His statements of fact are in the main correct, and are as strong an argument in favor of the practicability of irrigation in western Kansas as any one could wish. No one familiar with the conditions in western Kansas expects to irrigate any considerable portion of the uplands. The province of deep well irrigation is only the orchard and garden. No one who has given the subject any study expects more.

This observer says that "in his trip he crossed nearly at right angles the depressions or draws leading down to the head-waters of the Republican and Smoky Hill rivers. He states that he found the bottom lands of the streams to be in the aggregate considerably larger than might be anticipated from the general description of the plains. At Russell Springs there was found to be opportunity for extensive irrigation from both storage and ground water supply, but only one man was seen who appreciated his opportunities. These plains afford excellent grazing and are sufficiently dissected by drainage to afford bottom lands. On these latter the water is close beneath the surface, apparently sufficient for a population make full use of the uplands for pasturage."

The favorable conditions he found for extensive irrigation at Russell Springs this traveler must also have found to a greater or less extent in all the valleys and draws he crossed. The valley of, the Smoky Hill river at Russell Springs possesses no better facilities for irrigation than can be found all along the valley, and there is no reason to believe that the valley of this stream has any greater supply of "ground water" than other small streams scattered all over western Kansas. Certainly storage facilities are no better. It is these lands the friends of irrigation are seeking to have developed and are developing as fast the available water supply, or, followas the limited means and experience of the people will permit. The people who first settled in western Kansas did not possess the discernment, or, in less people.

other words, were not able to "size it up" as did this California friend on the occasion of his first visit, but years of dear experience have taught those who remain its possibilities, and barring the fear of the town-building schemer, they agree with this friend when he says: "If the plains, the greatest natural grazing land of the country, can be protected from the spasmodic and unprofitable plowing, and also from the incursions of the town-building schemers, the country can become one of the most prosperous of stock-raising communities. It is being demonstrated, howother barrow ate 341 pounds of feed ever, that there must be a considerable and made a pound of gain on 7.11 pounds of meal; while the sow ate 766 pounds of feed—more than twice as much as constant care of the stock, and not only shelter the herds but feed when necessary. For this purpose alfalfa and other forage crops can be grown on the bottom lands and some wild hay put up in good season."

They well know the value of utilizing the uplands for grazing purposes, and the folly of depending on dry farming for a living. Those who remain and expect to stay are gathering about them a little herd, their farming operations are confined to raising forage crops for winter feed, when necessary. The farm well which supplies the water for domestic and stock purposes also will supply the water to irrigate a small garden and orchard, sufficient to supply the wants of the family and make pleasant the home surroundings. In the valleys, facilities for irrigation are as good as in any State in the Union, not in as large tracts perhaps, but at a cost very much less than the average for irrigated land. The people of western Kansas believe they can work out their own salvation, and are not disposed to look with favor on the advice of tender-feet, especially when offered with that assumption of superiority evinced by this correspondent when he says: "It is only by bringing in the more intelligent men from eastern Kansas that anything can be accomplished."

## The Matter With Kansas.

It is an unpleasant fact to admit that Kansas has lost step in the procession, that neighboring States are leaving her behind. We have lost population because, throughout the western part of the State, may be seen thousands upon thousands of abandoned homes, whose crumbling walls testify to misdirected effort and a hopeless fight against the laws of nature. The fair name of our State has suffered because the former inmates of these abandoned homes, now scattered to the four corners of the earth, have no good word for Kansas. Our securities and credit are in bad repute because, somewhere in the East, the owner of the mortgages on these abandoned homes is "breathing maledictions both loud and deep" on Kansas and her securities

Crop failures have not been confined entirely to the western part of the State. The facts are, even in the east-ern part of the State the rainfall is not sufficient every year to produce a full crop, and, rapidly decreasing as we go west, the rainfall on the western border is not sufficient to produce a full crop one year in five. We might as well acknowledge these facts. The sooner we realize that the rainfall will not increase; that we must make the most of conditions as they now exist; that agriculture in Kansas adapted to the natural conditions as we now find them, instead of what we hope they will be, the sooner our farmers will prosper, and general prosperity over the State follow.

The farmer, discouraged and disheartened by repeated crop failures, the business man ruined by the inability of the farmer to meet his obligations, do not go to make up that class of citizens who build up a great com-monwealth and who take pride in the State and her institutions.

The people of Kansas must do one of two things—either develop the State under the conditions of rainfall which we do receive, instead of what we hope for, together with the proper use of

## Irrigate Your Orchards.

Down at Winfield, this fall, apples were shipped in by the car-load, retailing at 90 cents per bushel, yet the State Board of Agriculture reports 172,113 apple trees in bearing in Cowley county—that is, they were old enough to bear, and do bear when seasons are favorable, or when they get enough moisture.

Fully 50 per cent. of the orchards of Cowley county can be irrigated. Many are situated where the water lift is less than twenty feet; many where, by damming a draw, storm waters can be stored that would furnish the necessary moisture to insure a crop every year.

Not only in Cowley county, but all over the central part of the State, are thousands of acres of orchards which could be put under irrigation at an outlay that would be returned the first year in the increase in quality and quantity of the crop.

Kansas had last year in bearing, or large enough to bear, 13,843,071 fruit trees, yet does not grow enough fruit for home consumption. Had every apple tree in the State large enough to bear produced only one bushel of apples, every man, woman and child in the State could have had five bushels each, and some to spare. The actual product would probably not equal one good apple pertree. Take your pencil and figure out what these trees ought to bear-would bear if they had sufficient moisture.

Of course, it would not be practicable to irrigate all the orchards of Kansas where they now stand. Many of them are located where the water could not be obtained, with any profit, but a very large per cent. could, either from storm waters stored above or subterranean waters pumped from below, be irrigated with profit. In many instances the increased production would, the first year, meet the entire cost of plant.

### Insect Pests.

The loss this year to the irrigation farmer by reason of the destructive work of grasshoppers, bugs, lice and other vermin, was enormous, scarcely a garden in the western half of the State but suffered more or less from their ravages. The fact that these pests were more numerous or destructive than ever before, was probably due to causes which we cannot remove, and it would follow that we can at this time consider with more profit means for their destruction, rather than to prevent their appearance.

Grasshoppers have every year been more or less troublesome to the gardener, some years much more so than this. The most effective means the writer has found for preventing their ravages is an old hen with a good brood of chickens, the number of old hens and broods depending on the size of the garden. If the chickens are properly cared for—that is, receive the attention that young ckickens should have—they will do but little harm to the garden, at any rate only a small fraction of the damage the hoppers would do if not molested.

The best method found to get rid of the black flea, so destructive to young cabbage, radishes, beans, etc., is an application of road dust slightly moistened with coal oil. This application is also very distasteful to the squash bug of all varieties.

The striped potato bug appeared in great numbers this y ing them off every day or two, for about two weeks, we prevented the appearance of but comparatively few young ones, and had no further trouble who neglected their potatoes until the young bugs appeared had their vines entirely consumed.

The aphis, or plant louse, is usually very troublesome to cabbage plants in various parts of the State, this year, particularly so to cucumber and melon vines all over the West. It is here confessed, after a three-years' fight. with these miserable little creatures,

## **PATIENTS**

Requested Not to Wait--Notice of the Extension of the \$3.00 Rate Made Imperative.

Drs. Copeland and Branaman Able to See Only a Small Proportion of Those Applying During Last Few Days - The \$3.00 Opportunity Frankly Extended to All for the Remainder of the Year.

On account of the vast number of appli-cants for treatment in the past week, many of whom could not be attended to by reason of the great number of persons ahead of them, Drs. Cope-land & Branaman decided after consultation in the land & Branaman decided after constitution in the matter to make an extension of time during which treatment would be given for \$3, so as to include the month of December. Patients proposing to come in during December are requested not to walt till towards the end of the month when the offices are crowded beyond their capacity.

### THE OFFER.

All office or mail patients who begin or renew treatment at the Copeland Institute during the present month of December will be treated at a total expense of \$3.00 per month, all medicines included, until cured.

Mr. E.S. Triggs, engineer, Nineteenth and Bell streets: "I had been a sufferer from catarrh of the head and throat for eight years. I became so bad that I could not swallow—my palate was eaten by the disease, so that I could swallow only warm fluids. I lost flesh and strength rapidly. Being told that Drs. Copeland and Branaman would not treat any diseases that they could not cure, I went to them for examination, and being told that they could cure me, began a course of treatment at the institute. I improved rapidly from the very beginning. I can now swallow any food, my throat is well and I am gaining in strength. I cannot say enough in praise of this quick cure."

Mr. Jas. Neeson, 808 Penn street, this city:

Mr. Jas. Neeson, 808 Penn street, this city:
"I had a severe headache, pain in the eyes, stopped
up nose and a dry throat. I coughed all day long, and
felt miserable. At times I could not work. After
taking a course of treatment with Drs. Copeland &
Branaman, I am now enjoying good health."

Herman Peters, Fairdale, Kas.: "I am taking the Copeland treatment for Catarrh and Deafness. I have been treated by other physicians, but received no benefit. I can truthfully say that I'm improving under the treatment of the Copeland Specialists, and know that within a short time I will

Our home treatment is just as effective as the office treatment. Write for Home Treatment Symptom Blank.

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DR. W. H. COPELAND, | Consulting DR. G. M. BRANAMAN, | Physicians

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we cannot conquer them, and while not willing to give up yet, have so far invariably found that their appearance on a plant or vine meant certain death to it. We tried everything we could read or hear about, yet they destroyed every melon and cucumber vine on the place this year. All authorities on the subject recommend kerosene emulsion, but we tried it on the vines several times, but always damaging the vines more than the aphis. Tried to drown them, but they seemed to enjoy the bath. On cabbage this fall they would actually freeze solid in the night and during the day thaw out and seem as lively as ever. If any of our readers have been more successful in preventing the ravages of these pests, we will be glad to offer them these columns to relate their ex-

Work is to be resumed on the plan to construct a large pumping station at alisade, Mesa county, for the purpose of irrigating the Upper Orchard mesa. A son of Governor Drake, of Iowa, is said to be backing the scheme. The pump is already on the ground, or saved seven acres, while neighbors rather in the Grand river, and the lift will be from 165 to 175 feet, with a tenmile ditch to cover 6,000 acres.—Denver Field and Farm.

> The readers of our publications are requested to use Salvation Oil for any and all pains. It is a sure cure. 25 cents.

> Kalamazoo, Mich., is famous for celeryalso as the home of Thos. Slater, whose advertisement appears on page 15.

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## The Apiary.

Conducted by A. H. Duff, Larned, Kas., to whom inquiries relating to this department should be addressed.

### REPORT ON BEE-KEEPING.

KANSAS FARMER APIARY:-Your request for information on bee culture is on time, and a point of interest and importance.

As I am a new beginner, I scan all the information printed in the apiary column of the FARMER. My success with bees has been very good. I have taken from thirty to thirty-five pounds of honey from each hive every fall but last. Last year, with us, was a very dry one, and my bees did not gather sufficient honey to carry them through the winter. My loss was four-fifths last winter. What hives lived over turned out a very large swarm to each colony. I use the common hive with hanging racks, and honey boxes; I also use comb foundation. I have made inquiries among bee men in my community, and find that they have fared about the same-heavy losses last winter, and few and large swarms in the sgring, and a good harvest of honey following. Taking my own care and outlays, together with my neighbors, bee-keeping has been very profitable in this locality. Outside of furnishing hives and honey boxes, the bees are left to themselves. I take the honey as soon as the season is over, and my method of preparing colonies for winter is, to fill the honey boxes with dry cut straw, and tack over them a piece of woolen cloth. I keep my hives sitting under apple trees in the orchard, which affords protection, both in winter and summer. J. J. BURGER. Reserve, Kas.

HOW QUEEN BEES ARE PRODUCED.

Will you please state how queen bees are produced? Do queen bees reproduce themselves?

The manner in which queen bees are produced naturally is as follows. I say "naturally," because we have two methods of producing queens which we term, one naturally, and one artificially. It is true that all are produced in the same manner by the bees, the difference being the course we pursue to obtain them.

On two different occasions bees will proceed to rear queens. One is when the old queen becomes lost, or when she becomes old and worthless as an egg-producer. The other, when the bees are making preparations to swarm. In the first instance, it seems that the bees do not always make a success of reproducing their own queen. This is true, from the fact that if the queen becomes lost at a time when the colony is destitute of young brood of the proper age, it is impossible for them to produce a queen. This is the cause of so many colonies becoming extinct, when, from outside appearance, we failed to detect anything wrong, and this is one reason why we should acquaint ourselves with the interior of the hive. On occasion of loss or disqueen from brood that was deposited worker bees. They select eggs, or hatched brood, usually not over three days old, and convert them into queens by constructing queen cells around frames. This should not occupy the them, and feeding them of the food entire surface over the hive, but ex prepared exclusively for queens. In tend it so the bees can reach the outcells in each colony. After the cells are well started, the queen comes along and deposits an egg in each cell. In this, they do business some differently from reproducing, but the egg laid in the queen cell is just the same as that laid in worker cells; it is simply a fertilized egg, and no more. A prosperous colony will construct perhaps a dozen queen cells when preparing to swarm. These queen cells may readily be found attached to the edges more usually, and often to the surface of the comb, but always where the brood is located. Queen cells are oblong in shape and when completed resemble a hull of a peanut. In eight days after the egg is deposited, the cells will be City, Mo.

sealed over, and in eight more days the young queen will be ready to hatch out, a perfect queen, and in two or three days thereafter, and, in fact, almost at once, she is ready to come out with a swarm. When the cells are sealed over, at the end of eight days, the first swarm is due, and if the weather is fair the swarm will come off, the old queen always coming with the first swarm when everything is regular. Eight days thereafter, the young queens will begin hatching, and second swarm will begin issuing, and will continue, perhaps daily, for two or three days.

Superannuated queens, with the assistance of the bees, when circumstances are favorable, will reproduce themselves. The bees will construct one or more cells, and the queen will deposit eggs in them, evidently for the purpose of reproduction. And it is often the case, but I shall not use the word often, but will say that it is rarely the case that an old queen thus will be found with her daughter side by side both laying eggs, but a great many instances of this kind have been discovered. This is the exception where two queens have been known to remain in one hive in harmony.

The large majority of queens on the market now are reared artificially. That is, they are reared in and out of season by means used to compel the bees to reproduce. This is done by taking the queen away from the colony, the same, of course, being in proper condition by having plenty of eggs, or brood just hatched of the proper age to produce queens, and forcing the bees to raise queens, which they will always do to maintain their own existence. In this they have no assistance from the queen, neither do they need it, as her part of the work is done when she deposits the

Eggs that produce either queens or worker bees are one and the same, and the eggs that produce drones are the same, except they are not fertilized. This is very singular, yet it is true. This can easily be proven. Every one knows that the young queen is fertilized on the wing, out in the free open air, and all manner of contrivance to secure this result in confinement has been a failure. Now, take a young queen with bad wings and which cannot fly; she will lay eggs, but her progeny are all drones.

## Winter Passage Over the Combs.

It is necessary that arrangements be made so that the bees can pass from one comb to another, in order that they can reach their stores without having to go around the ends or bottom of the same. During a very long spell of continued cold weather it is impossible for them to leave the cluster and travel around the frames of comb to reach their honey. Many colonies have starved on this account when there was abundant honey in the hive, but the bees were unable to reach it. Formerly the remedy for this was to cut holes in the combs, but as this mutilates the combs to some extent other ability of the queen, the bees rear a devices have been substituted which answer the purpose as well. As the in the cells, for the production of heat of the cluster naturally rises upward this passway is made over the frames, in the shape of an empty chamber raised half an inch above the the second instance, when bees are mak- side combs. Quite a number use pieces ing preparations to swarm, they pro- of wood-one-half inch square or even ceed to construct a number of queen larger-placed crosswise on the frames and covered with the ordinary cloth cover. Corn cobs have been used for this purpose, and as they are naturally of a warm nature, and a good absorbent of moisture, they give good results.

> Neglect of the bair often destroys its vi tality and natural hue and causes it to fall out. Before it is too late, apply Hall's Hair Renewer, a sure remedy.

## Home-Seekers' Excursions.

Very low rates will be made by the Missouri, Kansas & Texas railway, on November 3 and 17, December 1 and 15, to the South. For particulars apply to the nearest local agent, or address G. A. McNutt, D. P. A., 1044 Union avenue, Kansas City. Mo.

Weather Report for November, 1896.

Prepared by Chancellor F. H. Snow, of the University of Kansas, from observations taken at Lawrence:

The past month is notable for the wide range in barometer. The maximum is the highest on our November record, while the minimum has been exceeded but five times. thus giving the greatest variation for November on record. The range of temperature, too, was unusual, having been exceeded only twice. There were eleven days on which the mean temperature was at the freezing point or below; the mini-mum reached the freezing point on eighteen days. During the last four days of the month the highest temperature was below freezing. The humidity for the month has been exceeded by only two Novembers, and the run of wind by but three. The rainfall and cloudiness were slightly below the November average. The first snowfall of the season, a very slight one, occurred on the 19th, eight days later than the average.

Mean temperature was 89.52°, which is 0.56° below the November average. The highest temperature was 75°, on the 16th; lowest was 3.5° on the 29th, giving a range of 71.5°. Mean temperature at 7 a. m., 34.72°;

at 2 p. m., 45.52°; at 9 p. m., 38.92°. Rainfall was 1.30 inches, which is 0.58 inch below the November average. entire rainfall for the eleven months of 1896 now completed is 34.40 inches, which is 0.27 inch below the average for the same months in the twenty-eight years preceding. Rain in measurable quantities fell on three days. There was no thunderstorm.

Mean cloudiness was 44.44 per cent. of the sky, the month being 0.18 per cent. clearer than usual. Number of clear days (less than one-third cloudy), thirteen; half clear (from one to two-thirds cloudy), nine; cloudy (more than two-thirds), eight. There were six entirely clear days, and three entirely cloudy. Mean cloudiness at 7 a. m., 53.66 per cent.; at 2 p. m., 45.66 per cent.; at 9 p. m., 34.00 per cent.

Wind was south five times; southeast, even times; east, four times; northeast six times; north, twelve times; northwest, twenty-three times; west, five times; southwest, twenty-eight times. The total run of the wind was 13,238 miles, which is 1,338 miles above the November average. This gives a mean daily velocity of 441 miles, and a mean hourly velocity of 18.4 miles. The highest velocity was forty miles an hour, on three occasions during the month.

Barometer.-Mean for the month, 29.174 inches; at 7 a. m., 29.152 inches; at 2 p. m., 29.158 inches; at 9 p. m., 29.218 inches; maximum, 29.825 inches, on the 29th; minimum, 28.552 inches, on the 10th; monthly range,

Relative humidity.-Mean for the month. 75.14 per cent.; at 7 a. m., 86.46; at 2 p. m., 60.83; at 9 p. m., 78.13; greatest, 100, eight times during the month; least, 26, at 2 p.

m. on the 13th. There were two fogs during the month.

## A Chance to Make Money.

Butter made in two minutes is what I did, and I am going to make a fortune selling the Queen Butter-maker, that makes butter in two minutes, as every one that I have shown it to wants one. All you have to do is to place the cream in the machine, give a few turns of the crank and the but ter is made and gathered ready to be salted. I am perfectly delighted with my success and feel sure I am going to make \$100 a month and not work hard either. I will devote my whole time to it, as it is the easiest thing to sell I ever saw. I met Mr. Hines, of Columbus, who had made \$75 the first week, which is only five a day. Any one who has made butter will know how hard it is to churn and will be glad to have a churn that will relieve them of all this work. Anybody can get circulars by writing the Queen Butter-maker Co., 47 East Third St., Cincinnati, who will give territory and sell machines to anybody who may ask. Will C.

"Among the Ozarks."

"The Land of Big Red Apples," is an at tractive and interesting book, handsomely illustrated with views of South Missouri scenery, including the famous Olden fruit farm of 3,000 acres in Howell county. It pertains to fruit-raising in that great fruit belt of America, the southern slope of the Ozarks, and will prove of great value, not only to fruit-growers but to every farmer and home-seeker looking for a farm and a home. Mailed free. Address,

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### SURE CURE FOR CONSTIPATION.

"The songs of birds and the lyre will not restore sleep" to the sufferer from constipation. At best, the victim of constipation gets but troubled snatches of the "sweet restorer." This is the penalty that nature inflicts for neglect of her laws. The brain poisoned like the body by constipation, rebels and declines to rest while the blood continues to flood it with the foulest of impurities. Dr. Pierce's Pleasant Pellets are a sure, speedy and permanent cure for constipation, and nights of sweet, refreshing sleep are the result. One "Pellet" is a gentle laxative, and two a mild cathartic. They are natural and easy in their action, and never gripe. Substitutes mean an inferior article, and more profit for the druggist.

## -----Stark Fruit Book contains new and copyright colored plates of over 100 rare truits, etc.—write for particulars. Ask for list of Stark Trees—\$3 per 100 and up. STARK BRO's, Stark, Mo. ARK TREES

KANSAS FARMER and the Advocate, both one year, for \$1.50.

Remember, you can get KANSAS FARMER and Breeder's Gazette both for one year for \$2, saving \$1 by the combination.

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KANSAS FARMER and Leavenworth Weekly Times both for one year for \$1.25. KANSAS FARMER and Leavenworth Daily Times both for one year for \$3. Send to this office.

Remember that \$1.85 sent to this office will pay for one year's subscription to the "old reliable" KANSAS FARMER and the Cosmopolitan Magazine, one of the brightest, best and most artistic magazines published.

## 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 papers 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.

## Did You Ever See an Indian?

or the West.
In for tickets
L. Lomax,
loket Agent,
Omaha, Neb.

Expect not, so send a 2-cent stamp to the
General Passenger Agent Colorado Midland
Railroad, Denver, and he will send you a
fine colored picture of one.

## The Bome Circle.

GROWING OLD.

The fairest lilies droop at eventide,
The sweetest roses fall from off the stem,
The rarest things on earth cannot abide,
And we are passing, too, away like them;
We're growing old.

We had our dreams, those rosy dreams of youth;
They faded, and 'twas well. This afterprime
Hath brought us fuller hopes; and yet, forsouth.

we drop a tear now in this later time To think we're old.

We smile at those poor fancies of the past—A saddened smile, almost akin to pain.
Those high desires, those purposes so vast,
Ah! our poor hearts! they cannot come again; We're growing old.

Well, the heavens are old; this earth is, too;
Old wine is best, maturest fruit most sweet;
Much have we lost, more gained, although
'tis true
We tread life's way with most uncertain
feet;
We're growing old.

We move along and scatter as we pace, Soft graces, tender hopes on every hand; At last, with gray-streaked hair and hollow face,

We step across the boundary of the land
Where none are old.

—Atlanta Constitution.

Written for KANSAS FARMER.

### WHAT ONE MOTHER DID.

BY CODA CLMSTED, LONE ELM, KAS

"Oh, dear me!" sighed Mrs. Slader, as she hurriedly washed the dishes. "I'm so afraid those cakes won't bake nicely. Everything else has turned out well, and whenever I give a party or anything for Freddie there is always something wrong, and I just expect those cakes will burn, or fall, or something." And Mrs. Slader went bustling about, from the table to the cupboard, from the cupboard to the table, setting everything in readiness for the lawn party on the morrow, the perspiration standing in great drops on her face, and now and then streaming down and off her nose and chin, when she would hurriedly wipe her face with her handkerchief or apron and go bustling on, though she was so tired she thought she would surely drop.

"Dear me," she continued, "I am so dirty, too. I haven't combed my hair to-day. A person just cannot be clean and neat when they are up to their eyes in work, and have to hurry as I do. But Freddie must have a nice party. I want him to enjoy him-self while he can, for soon enough will the thorns come," her eyes filling with love-light as she thought of her boy. "Is everything ready, mother?" asked

Fred, as he and a schoolmate entered at that moment. He was a brave, comely-looking lad of about fourteen years. He loved his mother dearly and would have defended her in any cause to the last min-ute, but as he looked around and saw how mussed and soiled things looked, and his mother's soiled dress and apron and perspiring face, and observed his companion glancing around, a feeling came over him that he would rather have less for luncheon and have his mother look nicer. He wasn't ashamed of her, but he would be prouder of her if she was always neater and cleaner, and would, join with him in his sports. It would not be right to say he thought all this, for he did not; but this is the expression of the almost indefinable feeling that swept over him.

"Yes, dear; I have everything ready but the cakes, and they are 'most done," she answered, as she looked at him proudly and stopped to put an arm about his shoulders.

Fred said nothing, but permitted the caress, though in such a manner that as soon as he and his schoolmate were out doors again Mrs. Slader sat down and dropping her head in her hands on the table cried and cried as if her heart were broken, She was tired and weak from the work and heat, and it had needed but little to tighten her heart-strings and reach the tear wells, and when the hurt came from her own dearly loved son it was more than her already overtaxed system could bear. She felt, with a mother's intuition, that her son just a little ashamed of her-no, she could hardly call it that; she could not define it; but she felt that he wasn't as proud of her before his companions as he should be, and as it hurt more and more she cried on and on. She cried till she felt the pain and hurt leaving her, and a more peaceful feeling creeping into her heart, then she arose, bathed her face and went on about her work with a thoughtful face, for she was thinking, thinking.

The next day, Saturday, the day of the lawn party, dawned bright and warm. The lawn, carpeted with soft, green grass dotted over with big, shady trees, and fixed with convenient seats and benches looked very inviting as the sun arose and cast out his brilliant beams. The birds seemed to seek the topmost branches of the trees, swinging and balancing on the slenderest twigs in their jubilance, vying with each other in the wild freedom of their

Fred and several companions were hurrying here and there, making everything ready, talking and chattering and laughing. Mrs. Slader was working and hurry-ing and bustling about to be sure to have everything just right, that her boy's party might be a perfect success, and to take as much work off of him as possible, that he might be free to have his fun and do as he pleased. She welcomed the children as they came, and they soon hurried out on the lawn to swing, play croquet, tennis, or anything their fancy dictated. Such screaming and laughing and running about; for none of them were old; all were light-hearted and young, and they danced about, talking and laughing with the perfect freedom of thought and speech and fect freedom of thought and speech and action which only the young have, or are allowed. And Mrs. Slader, glancing out frequently as she worked, wondered if she was really repaid for all her work and trouble. She felt that she was, only-and then the occurrence of the day before would come to mind, and there was a hurt, a pain a mother's intuitive feeling that something was wrong, she hardly knew what. And then she would think and think and analyze. She wished she might have time to sit in quiet seclusion, and perhaps she could understand it. The more she thought the more miserable and tired she became. It is just such things that touch the finer, sensitive chords of our natures; such indefinable hurts that make us the most miserble. And drawn from a child to its mother are the keenest, most sensitive chords, which when struck discordantly, make the most intense misery, and when struck harmo-niously, make the sweetest joy. It seemed but a short time till luncheon hour, and Fred and several of the boys came in after the baskets and cloths to spread their feast on the green grass under the trees, "just exactly as if we were picnicking," as Fred said, and once again Mrs. Slader felt the indefinable feeling as they took the baskets and went out on the lawn. They spread their cloths upon the grass and began taking out the good things—sandwiches, chickens, salads, cakes and ples—everything prepared with the utmost nicety, and Fred did feel proud of his mother (or was it her cooking?) as they laid out the good things.

"O, what a lovely cake," exclaimed Ivy Thomson, a little bright-eyed, mischievous fairy of twelve, as she fished out a large, handsome cake, "snowily, icily white," as one of the girls said, with layers one on top of another. She held it up high for all to see, but just as she was lowering her hand to place it upon the cloth the plate slipped from her hand and it fell to the ground.

"O! O! O!" was heard from all sides, and they fairly held their breaths for the consequences. But it landed firm and straight, not even so much as crumbling, at which they all looked relieved and looked at Ivy's frightened face.

"Oh, I'm so glad!" exclaimed Ivy, catching her breath. "I did think I had done something awful. I've a notion not to touch another thing to-day."

"No danger of that," said Roy Gilbert laughing. "Do you think you could look on all these tempting things and not eat?"

"I did not mean that," answered Ivy, as she sat down for a minute upon the grass. "I know myself too well to implicate myself by saying anything with that meaning," and she arose and went about placing things on the cloth so carefully that every

one laughed.
"Why didn't you have the lawn screened in?" asked Maud Wayl. "The flies are as bad as boys to get into things," and she picked up a tree branch and waved it vio-lently over the "table."

"Glad you didn't compare them with girls," said Will Ring, mischievously, "for you know boys know when they've got enough, and girls don't. I do believe," he went on, soberly and slyly, "that girls can eat more than any other animals. Now, you're a very pretty girl, but you swallow everything.

"I don't either!" exclaimed Maud, indignantly, her bright black eyes snapping. "You're just judging others by yourself."

"Oh, I didn't say what," drawled Will leaning back idly against a tree. "I meant nonsense;" and the laugh was on Maud.

"If you two don't quit quarreling," said Fred, drawing down his brows menacingly, "I shall transform you into beasts. I have only to throw water in your faces and pronounce the fatal words and it is done," throwing up his hands theatrically, and striking an attitude as if about to execute his threat.

"Bah!" said Maud, making a grimace and snapping her fingers. "You couldn't do that much. Better run in to his mamma, hadn't he?"

"No use trying to get ahead of Maud, Fred," said Will, doubling up his legs and seating himself at the "table." "It's like trying to get ahead of a turtle. If you try to teach it anything it bites; and if you try to chop its head off it draws it in."

"And so they laughed and talked while they ate, a merry group of merry children. So pretty they looked, in their cool, white muslins, with their bright, expressive faces, some standing, some kneeling others cotts Emulsion

and by improving methods, an emulsion must be more perfect than when made in the old-time way, with mortar and pestle, a a few ounces at a time. This is why Scott's Emulsion of cod-liver oil never separates, keeps sweet for years, and every spoonful is equal to every other spoonful.

In other emulsions you are liable to get an uneven benefit—either an over or under dose. Get Scott's.

50c. and \$1.00 at all Druggists.

with limbs crossed under them, all free and easy, with no conventionality to hamper them. People passing by, attracted by the merry laughter, stopped for a moment to rest their eyes on the pretty scene.

"O-o-o-o!" exclaimed Gray Wade, purs ing up his mouth in a prolonged exclamation, between a whistle and a rapturous sigh, looking toward the house with admiring eyes after they had about finished the

more solid eatables.
"O, how lovely!" "Aren't they sweet!"
"How beautiful!" were among the various exclamations called forth as they all looked in that direction. Several of the boys and girls were bringing a large block of ice, hollowed out in the middle, and piled high with dishes of ice cream, pink with crushed strawberries, and moulded in that form. It was a lovely thing, and the crowning feature of the luncheon, and Fréd felt very proud of it as they placed it carefully at the head of the "table," and passed the tempting dishes of cream around.

After the feast was finished the children went off to their play, and Mrs. Slader came out and piled up the things and car-ried them into the house, assisted by one or two of the older girls. She washed the dishes and put things to rights with tired limbs, then went into the parlor to think and rest. Something was wrong, she knew. She did everything she knew to make her boy happy. She idolized him. No work was too hard to do for his sake. She saved him all she could, carrying the water and wood often when he wanted to go some place or she disliked to call him from his play, for it was one of her hobbies that youth was the only time one had for pleasure, and she wished her son to have as much as possible. But with all this, she felt there was something wrong; something done that should not be, or something not done that should be done. She rocked; her face knitted with care and thought; and as she thought, gradually her face cleared, and a new resolve formed in her heart. A new idea had come to her, and she resolved to try it. She believed she understood at last. last. And to think was to do, with her. The room was so cool and restful after the work and hurry of the kitchen, that a peaceful calm gradually weighted down her eyelids and settled over her features, and, breathing softly, she drifted into

(To be continued.)

sleep.

## CHOOSING MILLINERY.

What Suits One Woman's Face Is Unbe coming to Another.

No fallacy is so complete, and, it may be said, so universal, as that which persuades a woman to buy a certain style of hat or bonnet, because some woman she has seen looks well in that particular style. What is one man's meat is another man's poison is not more true than that what suits one woman's face in the matter of bonnet or hat is most unbecomingly antagonistic to another. It is difficult to lay down rules to govern choice beyond the one of finding a model hat for the face and then adhering to it through changing fashions, with, however, a conformity to the prevailing style that is always easy to secure.

A woman with a regular face may more her best when it is framed by a drooping brim. The irregular face, with retrousse nose can becomingly wear the reverse. Sharp profiles and long necks should not have these points accentuated by angular bonnets, and the woman with high cheek bones must not emphasize the defect by massing the trimming of her bonnet in a point on top. Modern milliners must study the face and endeavor to suit it in headgear, bringing out virtues and neutralizing defects. It is quite possible by giving the matter a little experimental consideration that the buyers of bonnets as well as the makers should be similarly judicious.-N. Y. Times.

Ayer's Pills, being composed of the essential virtues of the best vegetable aperients, without any of the woody or fibrous materials whatever, is the reason why they are so much more effective and valuable than any other cathartics. The best family physic.

### Black in Favor.

Black materials are to be greatly favored this winter, and a special and attractive exhibit of stylish and elegant black goods made lately included French armures with bourette knots, mohairs and canvas weaves with boucle figures, English whipcords, camel'shair serge, with glossy silk and wool stripes in raised designs, plain and fancy alpacas and brilliantines, satins, moires, both plain and brocaded, Henriettas in silk warp and sheer all-wool combinations, drap d'ete, repped silks and repped wools in both fine and heavy cords, new designs in crepons, and many handsome textiles in crepon effects. The mohairs and Henrietta cloths, the faced cloths, are represented in different qualities and prices, and possess a degree of durability that is unsurpassed by nearly any black material save silky English serge, which is less dressy in effect than the finer woven fabrics. Many other standard black textiles are displayed that are in steady demand, as the outlook for the winter season indicates an even greater demand for handsome black fabrics than was experienced a year ago, when this color largely prevailed. -St. Louis Republic.

### Flowers Help the Sick.

That flowers are generally beneficial in a sick room, instead of harmful, as formerly supposed, is fully established according to many physicians.

# CONSUMPTION

To the Editor: I have an absolute Cure for CONSUMPTION and all Bronchial, Throat and Lung Troubles, and all conditions of Wasting Away. By its timely use thousands of apparently hopeless cases have been permanently cured. So proof-positive am I of its power to cure, I will send FREE to anyone afflicted, THREE BOTTLES of my Newly Discovered Remedies, upon receipt of Express and Postoffice address. Always sincerely yours,
T. A. SLOCUM, M.C., 183 Pearl St., New York. When writing the Doctor, please mention this paper.

LADY'S JACKET An unheard-of bargain, our No. 18109. You never saw its equal at double

the price, and never will outside of our Cloak Dethe price, and never will outside of our Cloak Department. Made of navy blue Bouele cloth, Napoleon lined collar, large full sleeves, very wide self-facing, pleated back, fancy buttons, piped seams; 4 inches long. Our Catalogue No. 18 shows a fine half-tone picture of it. Our price only \$4.75. Sent FREE. Our Mammoth Catalogue, quoting everything, on receipt of 10c. for postage. H. R. EAGLE & CO., 68 and 70 Wabash Ave., Chicago, Ill.



the latest styles at lowest wnoicean SEARS, ROEBUCK & CO., In Chicago, Ills., U. S. A. PEST SUPPLY HOU Mention KANSAS FARMER.

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## The Houng Folks.

GIVER OF GOOD.

Giver of good, One gift o'er all
Its wondrous greatness lifts.
Let tides of blessing rise or fall,
Thou art the gift of gifts.
Having not thee, I nothing own,
With Thee all things are mine.
For good abides in Thee alone
And flows from Thee to Thine.

So when I praise for length of days,
For health and peace from strife,
For tender care that everywhere
Encircles human life,
When thanks go up for fullest cup
Of joy, or love, or grace,
The glory lies in that my
In all behold Thy face.

When waiting trembling at Thy feet
Because Thy tender will
Has changed Thy gifts so fair and sweet
To seeming woe and ill.
Then with a peace more full and deep
I make my grateful song.
So wakest Thou my soul from sleep,
So mak'st my weakness strong.

How can we thank Thee, Oh, our God, When ev'ry care or loss
Has lost the sting of chastening woe
Before Thy radiant cross?
Thine ears have heard no grateful
To prove the thankful heart,
And yet each pulse of being stirred
Throbs praises that Thou art.
—Mary Lowe Dicktnson.

## CHICKEN AND CANARY.

A Firm Friendship That Was Begun in a Singular Way.

One day last spring, in purchasing a lot of fowls from her marketman, a lady in Nashville, Tenn., got one little bit of a chicken that was almost too small to eat, and which made its escape through the wires of the coop and began to chirp and cry about the yard. The lady made no effort to recapture the little thing, thinking it would be better off running free about the place. But it soon became evident that the chick had been too soon taken from parental care and was totally unable to provide for itself. Two whole days passed, during which it neither ate nor drank, though the lady tried every means in her power to provide for its welfare. The chicken simply peeped and drooped till the lady gave up all efforts and left the little thing to die, which no doubt it would have done right speedily had it not been rescued in the following singular man-

It chanced that the lady has a pet canary of which she is very fond, and to which she devotes much care and attention. For instance, it is her invariable custom in mild weather to turn the bird out of his cage for a certain portion of each day, letting him have his bath in a sunny spot on the back porch. So that morning when the little chicken was so nearly giving up his life for lack of food and comfort, it happened that the canary was turned out of his cage for his hour of freedom in the sunshine. The lady was watching to see that no cats came around, and presently she saw the canary trip down the steps to the lawn, where the little chicken was crying. For a moment the two little feathered things stood and looked at each other inquiringly. Then the bird chirped and made a dab with its beak. The chicken chirped and made a dab, too, and pretty soon the two were chirping and dabbing away mightily. What the chirps and dabs meant of course we may not know, but presently the bird came hopping up the steps, the chicken following behind. Making his way to the cage, which sat open on the floor, the bird went in, chirping and dabbing all the while, with the chicken following after, and presently the two little friends were eating and drinking together.

That was the beginning of the singular friendship, which continues still unabated. The chicken stayed in the bird's cage with him till it was too large to get in the door, and then a roost was placed for it close to the cage hook, so that they might be near each other at night. It is no uncommon sight to see the canary throwing seeds down from his cage to the chicken, and if the chicken finds a worm he brings it in the house and chirps under the cage till the lady lets the bird out when the friends enjoy the feast together.—Philadelphia Times.

Where Hens Are Kept Busy.

In China hens are kept busy hatching fish. The spawn is placed in egg shells, hermetically sealed, and a hen is induced to sit on them. At the proper time the little fish are removed and put in carefully tended ponds.

SEA OTTER HUNTERS.

Their Hermit Home on the Summit of a Storm-Lashed Rock.

About a hundred miles below Cape Flattery is a rock which every mariner of the Pacific knows as marking the dangerous shallows of Granville bay. Copalis rock, as it is called, is only a hundred yards or so from shore, but is always surrounded by tumbling breakers. It is 60 feet high and barely 30 feet across; yet on its bare summit is a house inhabited by man-a little wooden shanty built of wreckwood and lashed securely to the top of this waterwashed home of the sea gull. The area of this but is not more than ten feet by eight, and it is built very, very low. Yet in it two men lived for years. There they slept and worked, making their living amid the breakers of the Pacific.

These men were the pioneer sea otter hunters of this part of the coast-the first white men who engaged in the business. From their perch high over the angry sea they watched for sea otter and shot them. Behind the rock in an eddy that was comparatively quiet they kept their canoe, foot and hand holds down the side of the rock giving them access to their craft, in which they would search for the otter they had killed, or perhaps chase their quarry when sighted at a distance too great for the range of their guns. The cance sometimes also gave them communication with the shore, but not always. Another and stranger method of travel secured to these ofter hermits access to the mainland in the worst weather—an endless line, carrying a cage. This was firmly fastened to a tree on shore at one end, and to a wedge driven firmly into a cleft in the rock on the island. Without this line the men were not safe from the breakers, which often beat clear up over their little cottage during the

Sea otter hunting is a most peculiar and hazardous business, and the boast of those that follow it that they are the finest marksmen and the finest boatmen in the world is well sustained. This is only to be expected, for the precious fur they hunt-a No. 1 sea otter sometimes selling for as much as \$300-allures the hardiest and most skillful hunters. Along the strip of coast running north from Gray's harbor are a half dozen white men and a score of natives whose sole industry is to hunt this animal. One fellow of the Quinailt tribe has not only made a good living,



THE DERRICK OUTLOOK.

but claims to have in a safe that he picked up in a wreck near by furs valued at \$2,000. He is the most successful hunter in the lot, and is waiting for a in the market. He will probably get a heavy premium before he dieshe is still young-for the other is fast being exterminated.

There are several methods of hunting the otter. The Indian chases the animal through the surf and out at sea with his canoe. So does the white man sometimes, but ordinarily he shoots from the shore. Along the beach are tripodshaped "derricks" standing at the edge of the surf, from which the white man watches, days at a time, for his game. His fine rifle brings down the game at 600 or 800 yards almost without fail. It is a perfect weapon, perfectly kept; the rifles are carefully cleaned with a piece of linen after every shot, and a hair sight and carefully-scratched trajection slide shows the marksman just where he can hit, or has hit before. The Indian, chasing his game at sea with a shotgun, generally follows a family of otter until he runs them down.

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Calendar

New Subscribers who will cut out this slip and send it at once with name and address and \$1.75 (the subscription price) will receive:

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THE YOUTH'S COMPANION, Boston, Mass.

AMUSING SEA DOG.

This Canine Chews Tobacco and Blows Out a Match.

"Grip" is the name given a remarkable dog that follows the fortunes of the Neptune liner Ohio, on account of the tenacious hold on life he has shown, he having fallen from the ship into midocean no less than three times, says the New York Journal. He is a cross between a Bedlington and a Skye terrier, and does many things that other dogs do not do.

He will eat raw potatoes ravenously, but will not touch meat. The sailors have taught him to chew tobacco, and he has developed a taste for whisky and water, under the influence of which he does many foolish things and shows a bad temper.

He will blow out lighted matches. He has one trick of standing on his hind legs and by a little twist throwing into the air and thence into his mouth any article placed on his nose.

His brightest accomplishment is to select at word of command a given coin out of a collection composed of a halfpenny, penny, sixpence, shilling and half-crown, which are laid on the floor of the captain's cabin, Grip being sent below, with the command: "Bring me the shilling," or whatever it may be that is asked for.

An Amusing Introduction.

The little word "again" once threw a large assembly into fits of laughter. It was at a public meeting in New York. One of the speakers, Rev. Mr. R-, had the misfortune, when he tried to take his seat, to miss his chair; and come down at full length on the platform. The accident caused not a little subdued mirth. When at last it came his turn to speak the presiding officer introduced him in these words: "Rev. Mr. R- will again take the floor." The reverend gentleman never met with so enthusiastic a reception as greeted the announcement.

Pigs the Size of Rats.

A hog that was no bigger than a house rat would hardly seem like much of a hog, would it? Yet, in Australia there is a breed of pigmy pigs no bigger than that. They are like the larger breeds in every respect, except in the size of their squeals and their appetites. They are said, too, to be quite as unclean in their habits as are those with which we are familiar.

THE WAY TO CURE catarrh is to purify the blood, and the surest, safest, best way to purify the blood is by taking Hood's Sarsaparilla, the One True Blood Purifier.

Hoop's Pills are prompt, efficient, always reliable, easy to take, easy to operate.

When writing to advertisers please mention LANSAS FARMER.

Making a Hole in Glass.

Everybody who has tried understands how difficult it is to bore a hole in a strip or sheet of thin glass. The following method is said to be successful: Press a cake of wet clay upon the glass and then make a hole through the clay of the desired size, laying bare the glass at the bottom of the hole. Then pour melted lead into the hole, and it will drop through the glass, making a round aperture. The explanation is that the sudden application of heat cracks the glass in a circle corresponding in size with the hole in the clay:

New remedies are being constantly intro-duced to the public, but Dr. Bull's Cough Syrup still maintains its pre-eminence.



## Train for Business

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and low expenses. Board \$1.60 per week. Students
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GEO. M. HERRICK, President. 

Send your name for a Souvenir of the Works of Eugene Field,

## FIELD FLOWERS

The Eugene Field Monument Souvenir

The most beautiful Art Production of the cen The most beautiful Art Production of the century. "A small bunch of the most fragrant of blessoms gathered from the broad acres of Eagene Field's Farm of Love." Contains a selection of the most beautiful of the poems of Eugene Field. Handsomely illustrated by thirty-five of the world's greatest artists as their contribution to the Monument Fund. But for the noble contributions of the great artists this book could not have been manufactured for \$7,00. For sale at book stores, or sent prepaid on receipt of \$1.10. The love offering to the Child's Poet Laureate, published by the Committee to greate a fund to build the Monument and to caré for the family of the beloved poet.

Eugene Field Monument Souvenir Fund,
180 Monroe Street, Chicago, Ills.

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Published every Thursday by the

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Annual cards in the Breeders' Directory, consisting of four lines or less, for \$15.00 per year, including a copy of KANSAS FARMER free.

Biectros must have metal base.
Objectionable advertisements or orders from unreliable advertisers, when such is known to be the sase, will not be accepted at any price.

To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

Extra ladvertising intended for the current week should reach this office not later than Monday.

Every advertiser will receive a copy of the paper ree during the publication of the advertisement.

Address all orders—

KANSAS FARMER CO., Topeka, Kas.

KANSAS FARMER CO., Topeka, Kas.

If our friends whose subscriptions will expire January 1 will bear in mind that the labors of our subscription department at that time may be lightened by early renewals, and take the first opportunity to send in their dollar bills, they will confer favors which will be greatly appreciated.

The price of hogs averages about 20 cents per 100 pounds lower than at this time last year. The highest prices of the last twelve months obtained early in February.

We have left on hand a small number of KANSAS FARMER binders. Any one sending \$1.05 and requesting the binder will receive KANSAS FARMER for one year and a binder. Until the demand becomes very strong for binders we shall not make a new supply.

December is the month in which prices for prime beef cattle are on the average higher than in any other month of the entire twelve. If beeves are fat and ready to sell in December, under the usual course of the market it will be more profitable to let them go than to hold them until spring. It costs more to feed to add a pound of beef after than before Christmas.

Ex-Mayor T.W. Harrison, of Topeka, one of the most extensive and successful farmers in Shawnee county, who has had a wide agricultural experience of over forty years in Illinois, Wisconsin and Iowa, and for the last fifteen years in Kansas, will address the next annual meeting of the State Board of Agriculture, in January, upon the subject of "Longevity of Farms," which he is certain to make very interesting.

Market quotations of wheat are made on the speculative grade. This is No. 2 hard, a grade of spring wheat. Red winter wheat has usually commanded considerably better prices than those quoted for No. 2 hard. The difference is now greater than heretofore. Thus, on December 2, the closing Chicago quotation on the speculative on the same day a Missouri river elevator had an offer of 94 cents for No. 2 red winter wheat.

When the children's poet, Eugene Field, died, a few months ago, his death was felt, by the children's friends, to be a great bereavement. A movement is in progress to provide a monument for the dead poet and to help his family. A volume containing some of Fields' choicest poems, superbly illustrated by thirty-two of America's greatest artists, a volume which would ordinarily cost \$7, it is said, is to be sold for \$1. This is made possible and yields a profit because the work of the artists has been contributed as a love offering. The objects of the association having the matter in charge are most worthy. In selecting presents for friends no mistake can be made in taking "Field Flowers."

IS IRRIGATION A SUCCESS?

In quoting a portion of an article from KANSAS FARMER of December 3, the Topeka Daily Capital and two of the Kansas City dailies of December 5 do the FARMER and the cause of irrigation great injustice by attributing the opinions expressed in the article to this paper, instead of correctly stating the fact that the views expressed were those of one of our California friends. This was explicitly stated in the first sentence of the article referred to, but which the Capital neglected to copy.

It is well known by regular readers of the KANSAS FARMER that we view the success achieved at irrigating small areas of the semi-arid portion of Kansas as incontrovertible evidence of the broader success which awaits the development of a fuller knowledge of the situation and the more extended use of the water resources which nature has provided with great liberality, although in different manner from that to which most irrigators are accustomed.

Instead of advising Kansans to discontinue their efforts at irrigation, as suggested in the headings which the daily papers have given to their excerpts from our California friend's views, we have uniformly held that a large portion of the plains are redeemable by the artificial application of water and that nature has provided a constantly replenished supply of water in a great underground reservoir of sand and gravel, from which it may be obtained without greater expense than the average cost of water in countries where irrigation has long been successfully practiced. The KANSAS FARMER believes that a man who has a piece of the rich lands of the plains of Kansas, where the depth to this great reservoir is not over fifty feet, has the foundation for a prosperous farm. Where the depth is not more than 100 feet a good living may be made, and where the depth is ten to twenty feet he has under him a fortune.

That stock-raising, dairying and poultry-raising should constitute important features of the farming of the plains, and that the rich and unused native pastures should be grazed, are propositions not open to argument.

With the advancing prices of farm staples, which seem inevitable from the most careful statistical estimates of demand and possible supplies, the outlook for the farmer is better than it has been for many years. The rise has already commenced as to wheat, and is likely, before the close of the century, to be distinctly noticeable as to farm staples in general. These can be produced in great abundance on the plains of Kansas by irrigation. The grains and forage can be fed to excellent advantage to animals which live half the year on the cheap grazing which so forcibly impressed our California friend.

The KANSAS FARMER, so far from being ready to call a halt on irrigation development in western Kansas, is conducting each week a department devoted expressly to that subject, and expects to see the favorable results, which have thus far followed well directed efforts, greatly multiplied and a very large proportion of the now almost unused plains subjected to a change as magical as that produced by irrigation in the southern portion of our California friend's own State.

So little accustomed are irrigators generally to finding great supplies of water in other than surface streams or lakes that they uniformly under-estimate the invisible supply of the great plains, and look upon the short grass which grows upon the surface as the only valuable product possible.

It is hoped that the forthcoming report of our State Irrigation Board will furnish such authoritative information as a result of its two years' investigations and \$30,000 as shall prove an eyeopener as to the capabilities of the plains of Kansas.

But whatever the future may have in store, the success of those who have applied water to Kansas land is such that no intelligent observer can fail to recognize it.

Dornbusch, the London grain statistician, recently gave the following brief "The world's harvest of 1896 was ling.

at least 20,000,000 quarters smaller kansas improved stock breedyears. The shortage was caused by the diminished yield in the United States, Canada and Russia. The Indian wheat crop of 22,000,000 quarters, was 9,000,000 quarters under the avererage of 1895, 1894 and 1893, and the country stands face to face with famine -and instead of contributing to the wants of Europe, is compelled to accept extraneous assistance. The autumn sowings of wheat and rye have been frustrated by drought in the Russian provinces whence Black Sea and Azov ports draw their chief supplies."

## A BROAD-GAUGED MOVEMENT.

The organized movement of the Santa Fe Railway Co. to promote and assist material development along its route, as set forth in the circular of Vice President Morton, published in KANSAS FARMER last week, is a matter of importance. This great company, whatever may have been its errors in other directions, has always recognized the fact that its business, and consequently its prosperity, must come from the development of the resources of the country along its lines. The time is at hand when, instead of producing and shipping out unmanufactured products of the soil, and depending on this to keep us even with the world, Kansas will find it profitable to manufacture much of what her people consume and to give some finishing touches to our primary products. So, also, we shall diversify our crops and add to our production by irrigation and by otherwise intensify ing our agriculture.

The announcement that the Santa Fe Company stands ready to assist and encourage and to advise in every effort for the advantage of the country and towns it serves, is a recognition of the mutuat interests of all in the prosperity of local industry. It is not to be expected that the Santa Fe will draw on its treasury to promote doubtful or even meritorious enterprises. But the company can assist in the ways suggested in Vice President Morton's circular, and promoters of proposed enterprises should avail themselves of all that is suggested, and should not allow the clerks in the Vice President's office to forfeit their positions for lack of correspondence to answer.

## SHAWNEE HORTIOULTURISTS.

The December meeting of Shawnee County Horticultural Society was held last Friday, at the court house.

Mr. Charles presented an able discussion of California fruits, but on comparison showed that there is more money, more pleasure, and more satisfaction in being a horticulturist in eastern Kansas than in being one of a horde of California fruit-growers, each striving for a profitable sale in an over-stocked market. Representative Brooke led in a discussion of the San Jose scale. The conclusion was that legislation should be had for protection against this and other depredators.

The election of officers for the ensuing year was held, resulting in the election of Representative A. L. Brooke, President; A. B. Smith, Vice President; Mr. Charles, Secretary; John Armstrong, Treasurer; B. F. Van Orsdal and A. B. Smith, delegates to the annual meeting of the State Horti-John Armstrong, alternate delegates.

The Agricultural college at the State University of Missouri is offering two practical short courses, one for the farmer and stock breeder, the other for the horticulturist, both beginning January 5, 1897, and continuing twelve weeks. No tuition is charged. These courses deal exclusively with the practical phases of agriculture, dairying and horticulture, and cover the subjects of breeding, feeding and judging live stock, butter and cheese-making, crop-growing, voterinary science, manures and fertilizers, drainage, orcharding, small fruit growing, market gardening, methods of combating injurious insects and destructive diseases of the orchard and field crops, and summary of the position of wheat: training in carpentry and blacksmith-

The next annual meeting of the Kansas Improved Stock Breeders' Association (which also includes the Kansas Swine Breeders' Association) and the first annual breeders' combination sale, will be held at Topeka, January 12 and 13, 1897. This will be the greatest occasion for fine stock breeders ever held in Kansas, and each member of the association is expected to do something for the good of the order. This may be the only warning given. Prepare yourself accordingly, so that when the Ex-ecutive committee calls you will be properly equipped for action.

The Committee on Program and Arrangements will shortly issue the annual program, and meantime it is expected that each member will immediately send suggestions by return mail to the Secretary, so that this annual meeting shall by far surpass all previous ones.

The year 1897 should be a great year for breeders and the improved stock business generally, and this convention will probably start the ball rolling. Address, H. A. HEATH, Secretary,

Topeka, Kas. KANSAS FARMER and Agricultural Epitomist to January 1, 1898, for \$1.25.

One bunch of forty-five export steers sold at \$5 per hundredweight at Kansas City, last Monday.

Subscribe now.

It is reported that despite the recent rains the 1896 famine in India will be the worst ever experienced.

The publisher of the Kansas Sunflower, the now famous "Becky Sharp's paper," has made arrangements with us whereby we can offer it and KANSAS FARMER one year for \$1.50, which is the price of the Sunflower alone. Send in your subscriptions to this office.

The Youth's Companion is one of the finest publications for young and also for older people. We can furnish KANSAS FARMER and Youth's Companion for \$2.35 for one year to new subscribers to Youth's Companion. Or we will renew subscriptions, with KANSAS FARMER subscriptions, at \$1.65, if sent direct to this office.

Congress convened last Monday. The present session is what is known as the short session. The terms of the Representatives will expire at the close of the day, March 3, 1897, and Congress adjourns "without day." Whatever legislation is had during this session must be completed and signed by the President before March 4, when the terms of the new Congressmen and the new President will begin.

Wheat took a tumble of 2 cents last Monday. This need not scare holders. There will be fluctuations, but unless all predictions, on both sides of the water fail, the price must continue to advance until a considerably higher figure is reached. The substitution of corn as the difference in price widens acts as a check to the rise which would otherwise take wheat to a figure necessitating short rations for many.

There was a pretty exhibition of pigeons in Topeka last week. About 800 birds were shown. Nowhere in animate nature is the transforming cultural Society, and B. B. Smythe and | power of the skillful breeder more apparent than in the case of pigeons. From a graceful and easily-domesticated but otherwise rather uninteresting kind of bird, have been produced such variations as appear to be scarcely related. Birds of almost tireless powers of flight and birds which cannot fly at all, birds of greatly varying colors, pure white, black as a crow, red, yellow, buff, variegated; birds of every form, birds of great performance, like the carrier pigeon; amusing birds, like the parlor tumbler. The parlor tumbler is the most interesting of all. In its cage it shows no noticeable peculiarity. Placed on the floor it turns somersaults backwards with great rapidity, actuated by an inherited instinct. The lesson of the transformations of the pigeon are of great value to the stock breeder, and will not unlikely be studied with advantage by the sociologist as well.

KTF

### Notes and Reflections.

EDITOR KANSAS FARMER:-Corn not nearly so good as last year; no oats nor barley and only a little wheat, so little that lots of folks have long ago decided to let the other fellow raise it, and very little is sown in this neighborhood this year. It has been a pretty fall for it; so far it looks well-a good prospect at present, but prospects are not very fattening. Some are still riding Hope's horse. He has nearly arrived at the jade stage, but here comes C. Wood Davis' article, like a good tonic, to strengthen and refresh the above-mentioned animal.

November 22 was (Sussex county, England,) Battle Fair day. Expect 'twas held on Monday, the 23d, the 22d coming on Sunday. The very place on which the battle was fought that conquered and killed Saxon Harold and placed Norman William on the English throne in the eleventh century, and now that brings to remembrance having read and been so greatly interested in C. Wood Davis' remarks, published in November 5 and 12 issues of KANSAS FARMER. It occurs to me that he has underestimated the available area of land that can and would be sown again to such a crop as wheat should the price of that commodity advance enough to warrant its raising, not only in some Eastern States of this country, but in older countries. England, for instance, though only producing such a little, could easily increase her area, although it, of course, would not be such a very tremendous area, but still would be a factor in the market, should prices rise and remain high enough to stimulate its raising. In the meantime it is mostly in grass, and being more or less scientifically grazed, therefore getting richer, awaiting the evolution.

The straw crop is also a great factor there in helping to eke out a the low prices of what little wheat they grow. Some years the straw is worth more than the wheat crop. One great expense is in the reaping in some districts; owing to the heavy, wet, clayey nature of the land, where in order to lay it as dry as possible, it is plowed and laid off in half-rod lands, and generally, on account of the value of the straw and being awkward to harvest with a binder, is perhaps still cut with a sickle or scythe (but not carried on the laborer's head at night to the stack; would make lots of exercise for the fellow going to and fro). Lighter land is not treated that way. Here it can be cut by a binder if the crop is not too heavy or lodged. I saw one small field on rich, heavy upland, one year, cut by hand, costing about \$5 an acre, the top of which was level as a table, no ear seven inches long nor any straw seven feet long, but all you could want-six and a half feet long and ears six and a half inches long. It was one of the finest wheat crops, as near perfection as one would want to see in a lifetime.

There are acres upon acres of hilly and rough land that is now grazed over, still showing the half-rod lands that were all in wheat forty or fifty years ago, when every acre available was sown to cereal crops, especially during and after the Crimean war, till the price kept dropping so that the worst and most used up fields were gradually put on the retired wheat-growing list. Now there is but little raised and that would not be if it was not for need of straw.

Mr. Davis' prophecies are somewhat like Mother Shipton's-most of them will come true if allowed time. The time may not be so very long. Telegraphy and cable lines have brought the world together in a very small knot. But I think the farmer can hardly be the monopolist, as he says. They are a very jealous tribe and don't like working hitched together. Should it so happen, they being able to raise crops at remunerative prices, some day or other, and get a few of the almighty dollars, whether in gold or silver, ahead, they might be very independent. Every dog has his day, and 'tis a long lane that has no turning, for in this part of the world for this last four or five years we have nearly all been like the rolling stone-wearing out and gathering no moss.

The "Jumbo" windmill is inquired with old hay, will answer the purpose to this office.

built one last year. Depth to water nineteen feet; to bottom of well twentyfive feet. Diameter of axle, about four inches; length of same, horizontally, seven feet six inches. Length of sweeps eleven and one-half feet by seven feet three inches wide, and only eighteen inch fan, in depth, on extreme of sweeps; six sweeps; one and a fourth inch pipe; eight-inch cylinder; six-inch stroke; ordinary cheap pump. This will and does run in a very light wind, but in a fair breeze, if axles and crank were strong enough, could pump three or four times as much. I shall probably put in at least one more pump next spring. Mr. Jones can make his ED. A. LORD. own deductions. Kingman, Kas.

## Inquiries About Alfalfa.

EDITOR KANSAS FARMER:—I am an old subscriber and I would like some information as to what time of the year is the most dangerous to pasture alfalfa, and whether it is safe in winter when it is killed. Which is the best for seed, the first or second crop, and whether it is well to have two crops of seed? In central Kansas I have been saving the second crop for seed, but some think the first is the best. Alfalfa does well here, but the grasshoppers ate off so much of the seed this year that it hardly paid to cut it. I would be obliged for any information on the above subject.

Ablene, Kas. EDITOR KANSAS FARMER:-I am an old

A. FREY. Abilene, Kas. There is danger of bloat from pasturing alfalfa whenever it is green. More cases occur in early spring than at other seasons, because animals have then such sharp appetites for the tender green plants that they are more than usually inclined to eat harmful quantities. No cases of harm to animals have been reported from pasturing alfalfa in the winter when it is killed. But it then has very little feeding value and the damage done by removing the protection from the crowns is likely to outweigh the value of the pasturage.

The first crop yields the best seed Two crops of seed may be taken in one season, but unless it is intended to plow up the alfalfa the probable weakening of the roots from the production of two crops of seed would be undesirable. Alfalfa roots retain their vigor best if no seed is allowed to form-that is, if it is cut as often as it comes into bloom. The production of seed is especially to be avoided in newly-set

Grasshoppers are exceedingly fond of alfalfa and they doubtless find alfalfa fields good breeding grounds. Some have found it bad for the hoppers and good for the alfalfa to give the field, and adjacent prairie if there be such, a thorough disc harrowing early in the spring.

## Easy Way to Store Ice.

EDITOR KANSAS FARMER:-A great many people would like to put up ice if it could be done cheaply, but few of the people living in the semi-arid region of the West are near water from which ice can be cut, and if they are it is usually stagnant water that is full of all manner of impurities that have accumulated during the year; then, too, the roads are usually bad during ice harvest, and the work is hard, cold and disagreeable. To overcome these objectionable features I want the readers of the KANSAS FARMER to try this plan: When ready to begin storing ice, pump a tank full of water and leave it until it begins to freeze; then with a pailful of it, wet the sides and bottom of your ice-house, repeating the operation as fast as the water turns to ice, which on a cold day will be about as fast as you can get the water there. If the weather gets cold enough to freeze ice six inches thick on a pond, it will be cold enough to fill any icehouse in Kansas on this plan. Try it and report. If the water that you use is pure, you will have the satisfaction of knowing that your ice is pure, and as you will have but one block instead of many, it will not melt as readily.

An ice-house should be open enough at the bottom to allow the water to run off as it thaws in the summer. If ice is allowed to stand in water or comes in contact with a warm current of air, it will melt very fast, but an ice-house need not be 'expensive. An excavation on a north hillside, covered

about by Wm. Jones (November 19). I for a farmer as well as an expensive C. E. KITTINGER. building.

Powell, S. D.

-Our correspondent seems to forget the difference between the climate of South Dakota and the climate of Kansas. It is seldom that a sufficiently cold day occurs in Kansas to make ice in the manner Mr. Kittinger suggests.

## New Oure for Kidney and Bladder Dis-eases, Rheumatism, Etc.--Free to Our Readers.

Our readers will be glad to know that the new botanical discovery, Alkavis, from the wonderful Kava-Kava shrub, has proved an assured cure for all diseases caused by Uric acid in the blood, or by disordered action of the Kidneys or urinary organs. It is a wonderful discovery, with a record of 1,200 hospital cures in thirty days. It acts directly upon the blood and kidneys, and is a true specific, just as quinine is in malaria. We have the strongest testimony of many ministers of the gospel, well-known doctors and business men cured by Alkavis, when all other remedies had failed.

all other remedies had failed.

In the New York Weekly World of September 10, the testimony of Rev. W. B. Moore, D. D., of Washington, D. C., was given, describing his years of suffering from Kidney disease and Rheumatism, and his rapid cure by Alkavis. Rev. Thomas Smith, the Methodist minister, at Cobden, Ill., passed nearly one hundred gravel stones after two weeks' use of Alkavis. Rev. John H. Watson, of Sunset, Tex., a minister of the gospel of thirty years' service, was struck down at his post of duty by kidney disease. After hovering between life and death for two months, and all his doctors having failed, he took Alkavis, and was completely restored to health and strength, and is fulfilling his duties as minister of the gospel. Mr. R. C. Wood, a prominent attorney, of Lowell. Ind., was cured of Rheumatism, Kidney and Bladder disease of ten years standing, by Alkavis. Mr. Wood describes himself as being in constant misery, often compelled to rise ten times during the night on account of weakness of the bladder. He was treated by all his home physicians without the least benefit and finally completely cured in a few weeks by Alkavis. The testimony is undoubted and really wonderful. Mrs. James Young, of Kent, Ohio, writes that she had tried six doctors in vain, that she was about to give up in despair, when she found Alkavis and was promptly cured of kidney disease and restored to health.

Many other ladies also testify to the wondarful curetive powers.

Many other ladies also testify to the wonderful curative powers of Alkavis in the various disorders peculiar to womanhood. So far the Church Kidney Cure Company, No. 420 Fourth avenue, New York, are the only importers of this new remedy, and they are so anxious to prove its value that for the sake of introduction they will send a free treatment of Alkavis, prepaid, by mail, to every reader of KANSAS FARMER who is a sufferer from any form of Kidney or Bladder disorder, Bright's Disease, Rheumatism, Dropsy, Gravel, Pain in Back, Female Complaints, or other affliction due to improper action of the Kidneys or Urinary Organs. We advise all sufferers to send their names and address to the company and receive the Alkavis free. It is sent to you entirely free, to prove its wonderful curative powers.

This is the time of year to make up your list of periodicals for next year's reading. Every family should have at least one home county paper, one agricultural paper and one magazine. Many will add one State political paper and one of the great city papers. Others will want a more extended list. Whatever your wants, we can save you money on the purchase. We have wholesale rates on everything published and will give the advantage to every subscriber to KANSAS FARMER. Send in your list get our estimate.

The meteorological and family paper, Word and Works, edited by Rev. Irl R. Hicks, of St. Louis, contains the most elaborate forecasts of the weather anywhere published. It is a large and elegantly gotten up paper on a high moral standard and is entertaining for its general family reading. The weather forecasts of Rev. Hicks are uttered with the utmost confidence and are explicit and entertaining. In addition to the paper, Rev. Hicks publishes an almanac, in which he prints his predictions for the entire year, with such explanations as interest and instruct the reader. The price of Mr. Hicks' ipaper, Word and Works, is \$1 per year. By arrangements just made we are able to offer Word and Works, the Hicks almanac which is a book of the Hicks almanac, which is a book of 108 pages, and KANSAS FARMER, all one year, for \$1.60. Send subscriptions

### Farmers' Institutes.

The following dates and appointments for farmers' institutes in this State, under the auspices of and to be attended by representatives from the Agricultural college, have so far beer made:

Nortonville, Jefferson county—December 17 and 18; Prof. Olin and Mrs. Kedzie.
Oak Grange, Shawnee county—December 17 and 18; Profs. Georgeson and Win-

chip. Hackney, Cowley county—December 29 and 30; Profs. Failyer and Mason.

Hiawatha, Brown county-December 30; Dr. Mayo. Overbrook, Osage county-January 21

and 22; Profs. Mayo and White. Wellsville, Franklin county—January 22 and 23; Profs. Georgeson and Will.

Peabody, Marion county-January 28 and 29; Profs. Mason and Walters.

Hutchinson, Reno county—February 4 and 5; Profs. Hitchcock and Nichols. Stockton, Rooks county-February 4 and ; assignments not made.

Berryton, Shawnee county—February 11 and 12; Profs. Graham and Walters. Haven, Reno county-February 11 and 12;

Profs. Popence and Lantz. The institute that was to have been held

at Russell on the 4th inst. has been postponed indefinitely.

Grasshoppers are reported to be damaging the wheat greatly in Argentina. The exports from that country are falling off greatly. For last year they were less than one-third as great as two years earlier.

Leslie's Illustrated Weekly has always been and is now a \$4 paper, and worth the money if any illustrated paper is worth \$4 per year. But in order to accommodate our subscribers we have made arrangements with the publishing company whereby we are able to offer Leslie's Weekly and KANSAS FARMER both for one year for \$3.

### Memphis Route Holiday Excursions.

On December 21 and 22 excursion tickets will be sold to points in Tennessee, Alabama, Georgia, Mississippi, Florida and the Southeast generally, at rate of one fare, tickets good thirty days for return.

On December 24, 25 and 31 and January 1 excursion tickets will be sold between all stations on the Kansas City, Fort Scott & Memphis railroad and branches (where regular rate exceeds 50 cents), with return limit January 4. J. E. LOCKWOOD, General Passenger Agent.

## Meals on the "Order" Plan

are now served in the dining cars run by the Great Rock Island Route between Kansas City and Chicago. This change has been made to suit the convenience of the traveling public, and with the belief that such an arrangement will better please our

All meals will be served a la carte, and at

reasonable prices.

While the system of serving meals have been changed, the traveler may still rely upon the excellence of cuisine and perfection of service that have earned for the Rock Island the reputation of maintaining the best dining car service in the world.

JOHN SEBASTIAN, G. P. & T. A.,

Chicago, Ill.

Popular Low-Price California Excursions. The Santa Fe Route personally conducted weekly excursions to California are deserv-

weekly excursions to California are deservedly popular. About one-third saved in price of railroad and sleeper tickets as compared with first-class passage.

The improved Pullmans occupied by these parties are of 1896 pattern and afford every necessary convenience. A porter goes with each car and an experienced agent of the company is in charge.

The Santa Fe's California line is remarkably nicturesque, and its middle course

ably picturesque, and its middle course across the continent avoids the discomforts

of extreme heat or cold.

Daily service, same as above, except as regards agent in charge.
For descriptive literature and other information address G. T. Nicholson, G. P. A., A., T. & S. F. Ry., Chicago.

To Colorado, Montana, Hot Springs, Puget Sound and Pacific Coast via Bur-

lington Route.

Take the shortest and most desirable line to the far West; complete trains from the Missouri river. Dally train leaves Kansas City at 10:40 a. m., arrives Billings, Montona, 1,050 miles distant, 6:45 next evening; free chair cars Kansas City to Billings, sleepers Kansas City to Lincoln; through sleepers Lincoln to Billings. Connects with fast train beyond to Montana and Puget Sound. Ten to twenty-five hours shorter than other lines from Kansas City.

Through sleepers and chair cars Missouri river to Denver; Rio Grande scenic line beyond for Colorado, Utah and California.

Ask agent for tickets over the established through lines of the Burlington Route.

L. W. Wakeley, Gen. Pass. Agt.,
St. Louis, Mo. City at 10:40 a. m., arrives Billings, Mon-

## Borticulture.

OBSERVATIONS ON THE CARE OF FRUIT TREES.

By Prof. L. H. Bailey, in Bulletin 102, Cornell University Experiment Station. (Continued from last week.)

SOME REFLECTIONS UPON WEEDS. The one deplorable fact in the minds of most farmers is the existence of weeds. From the time the boy is old enough to vent his energy in the smothered carrot bed, he is everywhere and always impressed with the fact that he must hoe to kill weeds. From youth to old age the burden is upon his mind and back. Writers of agricultural literature have taken up the wail, and have drawn it out to disproportionate lengths by specifying long lists of plants which are often weedy intruders, and by describing their habits and migrations in vivid detail. The truth is that weeds always have been and still are the closest friends and helpmates of the farmer. It was they which first taught the lesson of tillage of the soil, and it is they which never allow the lesson, now that it has been partly learned, to be forgotten. The one only and sovereign remedy for them is the very tillage which they have introduced. When their mission is finally matured, therefore, they will disappear, because there will be no place in which they can grow. It would be a great calamity if they were now to disappear from the earth, for the greater number of farmers still need the discipline which they enforce. Probably not one farmer in ten would till his lands well if it were not for these painstaking schoolmasters, and many of them would not till at all. Until farmers till for tillage sake, and not to kill the weeds, it is necessary that the weeds shall exist; but when farmers do till for tillage sake, then weeds will disappear with no effort of ours. Catalogues of all the many iniquities of weeds, with the details given in mathematical exactness, and all the botanical names added, are of surface of his field with oats, the other no avail. If one is to talk about weeds he should confine himself to methods of improving the farming. The weeds can take care of themselves.

The presence of weeds is only one of the many illustrations of the effects of the desperate struggle for life which is Then use a short, quick, sharp rotaforced upon every plant and animal when left to shift for itself. Every plant produces more seeds than it can ever expect to rear into plants. There is room for more only as other plants die. So when the farmer breaks up the earth, he kills the plants which inhabited the land and thereby opens opportunities for the myriad host which stands waiting over the border for a chance to spread itself. These plants are bound to make the attempt to fill the breach. The farmer may keep them out either by killing them or preventing their establishment by means of tillage, or by covering the ground with other plants so that the weeds can find no chance to live. Now, these two things-tillage and cropping -comprise the whole science and practice of agriculture; and it follows that better farming is the only method of permanently keeping down the weeds. This fact is admirably illustrated by the common observation that those persons who are called "good farmers" in directly fighting serious invasions the East we grow more wheat per acre of weeds; but the government cannot | than they do in Dakota. Six to to ten does this it can only temporize with

the invader. Nature is a kindly and solicitous mother. She knows that bare land becomes unproductive land. Its elements must be unlocked and worked over and digested by the roots of plants. The surface must be covered to catch the rains and to hold the snows, to retain the moisture and to prevent the baking and cementing of the soil. The plant tissues add fibre and richness to the land and make it amenable to all the revivifying influences of sun and rain and air and warmth. The plant is copartner with the weather in the build-

rock, sending its fibres into the crevices and filling the chinks, as they en-large, with the decay of its own structure; and finally the rock is fit for the moss or fern or creeping vine, each new-comer leaving its impress by which some late new-comer may profit. Finally the rock is disintegrated and comminuted, and is ready to be still further elaborated by corn and ragweed. So nature intends to leave no vacant or bare surfaces. She providently covers the railway embankment with quack-grass or willows, and she scatters daisies in the old meadows where the land has grown sick and tired of grass. So, if Ipull up a weed, I must quickly fill the hole with some other plant or nature will tuck another weed into it. Man is yet too ignorant or too negligent to care for the land, and nature must still stand at his back and supplement the work which he so shab-bily performs. She knows no plants as weeds. They are all equally useful to her. It is only when we come to covet some plant that all those which attempt to crowd it out become weeds to us. If, therefore, we are competent to make a choice of plants in the first place, we should also be able to maintain the choice against intruders. It is only a question of which plants we desire to cultivate.

We must keep the land at work, for it grows richer and better for the exercise. A good crop on the land, aided by good tillage, will keep down all weeds. The weeds do not "run out" the sod, but the sod has grown weak through some fault of our own and thus the dandelions and plantains find a chance to live. So the best treatment for a weedy lawn is more grass. Loosen up the poor places with an iron garden rake, scatter a little fertilizer and then sow heavily of grass seed. Do not plow up the lawn, for then you undo all that has been accomplished; you kill all the grass and leave all the ground open for a free fight with every ambitious weed in the neighborhood. If the farmer occupies only half the half is bound to be occupied with mustard or wild carrot or pigweeds; but if his land is all taken with oats, few other plants can thrive. So, a weedy farm is a poorly-farmed farm. But if it does get foul and weedy, then what? tion. Keep the ground moving or keep it covered. No Russian thistle or liveforever or Jimson weed can ever keep pace with a lively and resourceful farmer.

Some two years ago I saw the muchdescribed Russian thistle along a railroad track in western New York. "There," I said, "is your schoolmaster. It comes with all the energy and freshness of the West. It will bring new ideas. Presently it will invade our old orchards, and how it will shake them up! Then farming will mean cultiva-tion or thistles. And now and then the farmer will debate if the old orchard is worth the trouble, and he will make wood of the trees and a potato patch of the land, and every one will be the gainer. If all that they say of it is true, this Russian thistle will beat the canker worm and the apple scab and the codlin moth as a reformer. I am afraid that we need the Russian thistle."

take men's farms in charge and do bushels of wheat means that lots of their farming for them, and unless it land is left for the thistle; and to this must be added raw prairie, and waste land upon farms which are too big to be farmed; and still to these encouragements to the plant must be added the fault of wheat after wheat year by year. The reports say that 25,000 square miles of land are threatened to be made profitless for wheat by the Russian thistle. Then, upon so much area the advent of a mixed and selfsustaining husbandry will be hastened, and the Russian thistle should have all the honor of the achievement. The oncoming of the Canada thistle was proclaimed over a half century ago with the same forebodings of disaster. ing of the primal soils. The lichen One New York agitator warned the

empire over the whole of North America," and perhaps result in the depopulation of the country! But whilst the Canada thistle has spread, it has met its Waterloo whenever it has made an onslaught against a good farmer. It is no longer dreaded by the farmers of this State. The land is now too precious to be given over to thistles. Now and then one sees a place like Solomon saw when he "went by the field of the slothful, and by the vineyard of the man void of understanding; and lo, it was all grown over with thorns, and nettles had covered the face thereof, and the stone wall thereof was broken

### When to Plant--How to Sell Seeds.

EDITOR KANSAS FARMER:-When conversing with your representative at Lawrence, he asked me, "When is the time to plant seeds in Kansas?" This question is very difficult to answer, as it depends largely on how soon spring opens. We begin planting from the latter part of February, and in March, and main crop is planted in April; and, then, it depends on what varieties of seeds are planted. For instance, onion sets ought to be planted very early, say in February, or they should be planted in the fall, in order to produce an early crop. Lettuce will stand a good deal of cold weather, while beets and tomatoes are very tender and liable to freeze. Dealers in seeds, as the farmers themselves, make a great mistake by not supplying themselves with seeds early enough to plant when the time comes. Both usually wait until the very last moment, when they want them, and then they want them bad. We therefore suggest to the country dealers that they have their stocks at least in January, to be able to supply the farmers when they are in need. In regard to buying grass seeds, sorghums and other varieties, throughout the country, from country dealers and farmers, this is principally done by samples sent from the different parties, upon which samples we make our bids F. BARTELDES & Co.

Lawrence, Kas.

## A Business Chance.

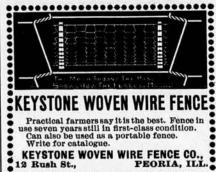
EDITOR KANSAS FARMER:-There is one enterprising nurseryman in Vermont who does a thriving business chiefly in native plants. He collects from the fence rows, wood lots, pasture, brook and mountain sides the commonest weeds and shrubs and furnishes them to a large and profitable list of customers. His success is encouraging; his methods are worth studying; his idea should be put into effect elsewhere.

Kansas has a comparatively very large number of native plants, numbering an unusual quota of attractive species. Along the river bottoms in the eastern portion of the State nearly all the Mississippi valley plants may be found; while coming down from Colorado on the west are many Rocky mountain species. The meeting of these two floras is a very seductive subject for botanic study, but the opportunity for a little profitable business may be found here also.

I can readily name from memory sev eral plants native to Kansas which are quite worth introduction to gardens. I And yet I do not look for such a fu
will mention Malva coccinea, Vernonia out delay.

Baldwinii, Kuhnia eupatorioides. Sevcomplain least of weeds. It is often | rious spread of this Russian thistle as | eral species of the button snakeroot, or asked that the government lend its aid it has enjoyed in the West; for even in blazing star, several of the goldenrods, several of the wild asters, and such shrubs as Cephalanthus occidentalis, Rosa setigera, Calycanthus, Symphoricarpus vulgaris, Cornus stolonifera, Cornus paniculata, etc. This list could be greatly extended and improved. I have simply cited a few examples from those which have first occurred to me.

And let no one be frightened by the long scientific names. The people who would be the best customers for this sort of stock would insist on having just those names, and on having them accurately applied. I should advise the enterprising young man who would take up this business to make a special study of these scientific names. There is another class of customers who would buy the names. For them one should keep that beautiful blossom of the western Kansas prairies, known as spreads its thin substance over the people that it would "establish its fatal Lepachys columnaris var. pulcherrima. City.



It will not be wrong to say that last spring I tried hard to buy seed of this plant but couldn't find it.

......

Doubtless there are scattered over the United States many exiles who "Want to be in Kansas when the sunflowers bloom,"

and who would gladly buy guaranteed packets of sunflower seed. Here I spent all last summer in Vermont and didn't see a sunflower! Think of it! How do you suppose it makes a Kansan feel? The sunflower is a pretty plant, after all. You will remember what Oscar Wilde said about it, and how very fashionable sunflowers were a few years ago with a certain class; yet I have never heard that any shrewd Kansan took advantage of the craze in a commercial way. This would have been the chance for our dealer in Kansas plants to gather 10,000 packets of sunflower seed from some office-seeker's corn field and send them out: "The Oscar Wilde Sunflower, grown in Kansas, and warranted to germinate.' One of the perennial sunflowers common in many parts of the State, Helianthus Maximillani, is a noble garden plant, and has been receiving many favorable notices in Europe in recent years. I have no doubt a market could be found for hundreds of the plants which could be collected by the wagonload. The so-called "wild flax," Coreopsis tinctoria, which makes many Kansas grain fields yellow at harvest time, is sold in many improved varieties by all American and European seedsmen. Sabbatia campentris, a beautiful little spring blossom, growing in the south-ern part of the State, has been favorably received in Europe, but can hardly be bought of American dealers.

Who would buy these things? Well, the man who should go into the business would have to find his own customers; and yet the question may be partially answered by saying that botanic gardens, at home and abroad, and wholesale plant and seed dealers would be the chief patrons of such a nursery The Vermonter whom I have in mind has hardly any local custom at all. And the Kansas nurseryman need not think that because he can't sell sunflower seed and goldenrod plants to his next neighbor there is no market for such things. I have no doubt that a man who would go at it rightly would find the collection of Kansas native plants a very remunerative business. Cansas is a fine field for such work.

Burlington, Vt. F. A. WAUGH.

It is often a mystery how a cold has been "caught." The fact is, however, that when the blood is poor and the system depressed, one becomes peculiarly liable to diseases. When the appetite or the strength fails, Ayer's Sarsaparilla should be taken with-

## This is Your Opportunity.

On receipt of 10 cents, cash or stamps, a generous sample will be mailed of the most popular Catarrh and Hay Fever Cure (Ely's Cream Balm) sufficient to demonstrate the great merits of the remedy.

ELY BROTHERS,

56 Warren St., New York City. Rev. John Reid, Jr., of Great Falls, Mont., recommended Ely's Cream Balm to me. I can emphasize his statement, "It is a positive cure for catarrh if used as directed."-Rev. Francis W. Poole, Pastor Central Presbyterian church, Helena, Mont.

Ely's Cream Balm is the acknowledged cure for catarrh and contains no mercury nor any injurious drug. Price, 50 cents.

## Union Pacific Route.

What you want is the through car service offered between Denver and Chicago via the Union Pacific and Chicago & Alton railroads, which is unexcelled by any other line. Magnificent Pullman sleepers, dining cars and chair cars, run through daily with-out change, Denver to Chicago via Kansas

## In the Dairy.

Conducted by A. E. JONES, of Oakland Dairy Farm Address all communications Topeka, Kas.

### Gathered From Many Sources.

From Report of Kansas State Board of Agri-culture ("Cow Culture").

We have so many advantages over the Canadian cheese-maker in the way of cheaper feed, cheaper land and good market that we ought to be able to do better than he does. Certainly there is no good reason why we should pay the freight on cheese all the way from New York, as we now do, when we can make it at home cheaper. What we need along these lines is education of the farmers to realize their opportunities and to know how to take advantage of them. Creameries may very easily be converted into cheese factories at small expense, for all or a part of the season. The largest cheese factory in the State, at Waterloo, is operated as a cheese factory in the summer and a creamery in the winter, the most profitable season for each line. We are making the fancy cheeses here at the college, such as Edam, brick and Switzer. They can just as well be made in the State as elsewhere, though most of them used in this country are now imported. The principal requisite is absolutely clean milk.-Prof. G. L. McKay, Dairy Instructor, Iowa Agricultural College.

I am decidedly in favor of co-operative creameries, for the following reasons: First—The farmers get all there is in it, after the necessary running expenses are taken out. Second-In the course of time the farmers own the creamery, and get more for their milk at the same time than they otherwise would. Third-The patrons, being stockholders, are also voters for the officers, and if there is a rascal in they can put him out on the first ballot. Fourth-The patrons are better satisfied if they have something to say about running the creamery and will produce more milk. The creamery that we now operate was owned by a stock company that had ceased to do business for the want of sufficient milk to make the running of the creamery profitable. Our average daily receipts of milk in June were about 10,000 pounds. We borrowed every dollar to pay for our creamery and will soon have it paid back. Our patrons have received more per hundred for their milk than they received the year before we bought the creamery, when butter was higher.

— Wesley Fegles, Secretary La Porte, Iowa, Co-operative Creamery, in Creamery Journal.

The farmers of Kansas should turn everything into milk that they sell to anybody outside of the State for that purpose. Butter and cheese can be made cheaper here than they can farther east. The freight on dairy products is very much less than on the feed that makes them. The skill possessed by the people of the East who make your corn and bran and shorts and oil cake and other things into butter and cheese costs you too much. It may be true that they need your feed stuffs to make their soils fertile but you need them for the same purpose. The man who grows grain to sell is a soil robber, who will reduce the best vin, of Larned, a woman who picked res on the continent to poverty: the farmer who keeps cows and consumes his crops on his farm can keep up the fertility of Western prairies and I do not know of any other way by which that can be done so certainly. The products of the cow sold from the farm do it less injury than any other kind of products, especially butter. We have seen Western farms steadily improve for thirty-eight years, where the cow was the center of the farm system and nothing was sold but meats and dairy products.-Prof. James Wilson.

You will find that a man who makes sure that he washes his hands clean before he milks his cows will make his dairy farm pay better than the man will who does not do that. It is not that the money is made by that one act, but if a man believes in the importance of little things he will make his

business successful. Most men fail, not on the main issue, but on the little things .- Prof. J. W. Robertson.

### That Cow Report--Utility of the Dairy Cow.

EDITOR KANSAS FARMER:-I have before me report of the State Board of Agriculture for the quarter ending September 30, 1896, entitled "Cow Culture," devoted to the dairy industry. The report shows Secretary Coburn to be an expert in compiling valuable information for the farmers of Kansas, and reflects great credit on the Secretary. It has been a long time since I have found as much practical information in so small a space as is contained in "Cow Culture." While every farmer should supply himself with these reports, this one is of special interest to every farmer who keeps a cow, and this includes about all, for she seems to be a necessity on the farm. And I sometimes think that on some farms she is a necessary evil—not from choice to the cow, however, but from neglect of her owner, or a lack of knowledge on his part as to how to feed and care for her and so make and handle her product that she will become a paying necessity instead of an evil.

We hear a great deal these days of big dividends made on money invested in stocks and bonds by grasping capitalists, but I say, and know what I am talking about, that a good herd of cows taken care of as they should be, and must be for best results, will re-turn a profit to their owner that makes the returns from legitimate stocks and bands look mean. And this can be done right here in Kansas on almost any farm. Now please don't call me a fool or a crank. I have demonstrated that it can be done, not on paper but in practical work. Nowhere can this be done easier than in this State, with its abundance of cheap feed.

I have dairied in the famous dairy regions of Ohio, but we can make but-ter here at about one-half the cost we could in Ohio, and if our farmers could see the golden opportunities as I see them, millions of dollars would be brought into the State yearly for dairy

We should feed every bushel of oats and corn and every pound of bran raised in the State to cows and sell them in the form of dairy products, instead of shipping east and north to be fed by dairymen there. The western or dry belt of this State would be far better off if instead of saling actions. better off if, instead of asking national aid for irrigation, the people would turn their attention to dairying, raising sorghum, Kaffir corn and such forage plants as are drought-resisting for feed.

There is no other crop, no other farm stock that can compete with the dairy cow. She does not ask you for from six months to one year's credit for feed and keep, but she is able and ready to make a contract to pay her bills promptly at the end of each week, and not only pay her bill but also in-terest on first investment that will doubly discount the best gilt-edge securities.

Not only should farmers read this report, but they are entitled to all of the reports issued by the Board of Agriculture. They are taxed to pay for them; they are printed for their bene-fit, and no doubt Friend Coburn would be pleased to fill all orders from farmers for them.

M. E. KING. ers for them. Elm City, Kas.

## A Kansas Dairywoman.

At the Kansas Dairymen's Association meeting, in November, Mrs. Parup the art of making cheese herself, and studied the dairy papers, exhibited a sample of cheese of her make which scored 97 points. She has bought over \$500 worth of milk this summer of her neighbors, besides using home milk of quite a herd of cows. The product was sold within a distance of twenty-five miles, at from 8 to 10 cents. She manipulated the milk, and, in fact, did everything up to delivering the cheese to the curing room, when her husband took it and marketed it. Mrs. Parvin gained her primary ideas from J. H. Monrad's "A, B, C in Cheese-Making," and the enthusiasm with which she has entered upon her chosen field is an indication of still better results in the future. If there was a hundred more like her distributed over the State the problem of Kansas cheese would soon be solved.

TO HAVE HEALTH AND HAPPINESS Use "Garland" Stoves and Ranges.

## AN AWFUL VISION.

## A Man Dreams That Death Comes and Beckons Him.

## A NIGHT OF HORROR.

In a New York club-room, the other day, a man was overheard telling an acquaintance about a dream he had on the previous night.

"I would not go through that night again," he said, "for a small fortune. I have been working pretty hard for the last few months and have been troubled a great deal with restlessness and sleeplessness. Last night I went to bed early, but couldn't sleep. I tossed and tumbled about until midnight, and then got up and smoked and read for an hour. Then I turned in again and finally dozed off.



"Directly I was aroused by the creaking of the bed-room door. It slowly opened, and the light from the hall shone into the room. By this time I was thoroughly frightened, but there was worse to come. A skeleton figure stepped through the door and walked slowly to the foot of the bed. There it stopped. I was faint with fear but managed to raise myself on my elbow and stared at the intruder. I was never so terrified in my life. I was chilled to the bone with horror and could hardly catch my breath. The skeleton figure stood and looked at me for what seemed an age, and I stared back with my heart in my mouth. At last the skeleton slowly beckoned me as if commanding me to follow him, and then it retreated slowly to the door. By this time I had partially recovered my scattered wits and demanded of the intruder who he was. With a hand on the door-knob he responded, in measured and solemn tones, 'My name is Death.' Then I awoke. The door was shut and the vision had vanished. But my every limb was quaking and I was covered with a cold perspiration. I tell you, my boy, I am not going to have any more skeleton dreams in mine if I have to take all the morphine on Manhattan island." And both men laughed. Men think

that dreams are jokes. If told that a dream like that is a warning they laugh the informer to scorn. They make a great mistake. If dreams are jokes, then so are life and death. Dreams are a warning. A healthy man doesn't see skeleton deaths parading in his bed-chamber after midnight. A healthy brain, like a healthy body, sleeps soundly at night. The brain that dreams works; and no brain can work day and night and last. An overwork day and night and last. An overworked brain means shattered nerves and a general derangement of every organ of the body. Death truly invades the bed-chamber and beckons to the man whose brain declines to rest at night.

There are thousands upon thousands

There are thousands upon thousands

There are thousands upon thousands the same are thousands and the same are thousands upon thousands the same are thousands the same are thousands upon thousands the same are thousands the same are thousands upon thousands the same are thou

There are thousands upon thousands of men all over the land who suffer in this way, and joke about it. If they but knew, it is a ghastly joke. During the day they work with fevered brows and aching heads. They go home in the evenings with nerves shattered and unstrung. They retire and sleep refuses to come to them. In the morning they arise unrefreshed to go through another day of reluctant toil. Their trouble is due to one all-embracing disorder. That disorder is indigestion. When the digestion goes wrong everything goes wrong. The life-giving elements of the food are not properly assimilated. The blood becomes thin and poor. Old inert tissues

are not carried away and replaced by new and healthy ones. The nerves do not receive their proper sustenance from the blood. The man is a sufferer from nervous prostration and death beckons him.

There is a sure, swift and permanent remedy at hand for this condition. Thousands of men have testified to their recovery through its use after all other remedies had failed. It is Dr. Pierce's Golden Medical Discovery. It is the greatest of all known nerve tonics. It not only acts directly upon them, soothing and toning them, but it also goes to the seat of the trouble and remedies the disorder there. It corrects all faults of the digestion. It makes the appetite keen and hearty. It makes assimilation perfect. It fills the blood with the life-giving elements that build healthy flesh and muscle tissue and healthy nerve fiber. It is an unfailing cure for all forms of nervous exhaustion and prostration and also for all wasting diseases. It cures 98 per cent. of all cases of consumption. It is the great blood-maker and fleshbuilder. All druggists sell it. There is nothing else "just as good."

One of a wife's and mother's most important duties is to keep all members of the family in health. It is a reflection on a woman that a doctor should always be running to her house. There are 680,000 women in this country who know how to look after the health of their families and into whose homes the doctor never comes save in case of severe, acute illness or serious accident. These women are possessors of Dr. Pierce's Common Sense Medical Adviser. It is a home medical book, written in plain, everyday language, without technical terms. It tells how to keep the family healthy and what to do in the emergencies of illness or accident. The women who have copies paid the original price of \$1.50 each. A new edition has just been printed and will be given away absolutely FREE. If you want a copy, in a heavy manilla cover, send twentyone 1-cent stamps, to cover cost of mailing only, to the World's Dispensary Medical Association, Buffalo, N. Y. If you prefer a copy with fine French cloth binding, beautifully stamped, send 10 cents extra, 31 cents in all. The book contains 1,008 pages, 300 illustrations, and invaluable prescrip-

## KANSAS HOME NURSERY.

Up to date for reliable Fruit and Ornamental trees. Best varieties of Small Fruits in full assortment for all planters in the West. Catalogue free. A. H. GRIESA, BOX J, LAWRENCE, KAS.

## MITH'S SMALL FRUITS FOR SPRING 1897

100 varieties old and new Strawberries, includ-ing Wm. Belt, Brandywine, Paris King, Bissel, Isabel, Barton, Marshall. New Raspberries—Egyp-tian, Miller, Bishop, Columbian. If you want plants I have two millions for sale. B. F. SMITH, Box 6, LAWRENCE, KAS.

# Carnahan's Tree Wash and Insect Destroyer

Destroys the bore worm and apple root louse, protects the plum from the sting of the curculio and the fruit trees from rabbits. It fertilizes all fruit trees and vines, greatly increasing the quality and quantity of the fruit. Agents wanted everywhere to sell the manufactured article. Address all orders to John Wiswell, Sole Mfr., Columbus, Kas., and Cleveland, Ohio.

coburn No. 1.—A new seedling of great vigor; pinkish; short but very bushy vines; white bloom; extra early; eyes shallow; very prolific, indeed; good table potato and a good keeper. Price \$1.25 per bushel, or three bushels for \$3.

three bushels for \$2.25.

KANSAS FARMER.—A new seedling of great vigor. A late variety, oval, flattened; eyes very shallow; strawcolor; very prolific; vines medium and spreading, completely covering the row; white bloom; very best of all keepers and a good eater. Surely worthy of its name and a grand potato. Price \$1.25 per bushel, or three bushels for \$3.

Three pecks of each of the above four kinds.

per bushel, or three bushels for \$3.

Three pecks of each of the above four kinds. \$2.50; packed in lined barrels and delivered at depot free. Write your name, postoffice, county and express office very plainly, and send money with order. I can furnish most all of the leading new kinds.

Address CLARENCE J. NORTON,

Morantown, Kansas.

Wanted, an Idea. Who can think of ple thing to patent? Protect your ideas; they may bring you wealth. Write John Wedderburn & Co. Patent Attorneys, Washington, D. C., for their \$1,800 prize offer and list of 200 inventions wanted.

## To Make a Hedge Hog-Tight.

EDITOR KANSAS FARMER:-I see in your valuable paper an inquiry, how to make a hedge hog-tight. A good way is to trim to the top, then hack it a little at the ground, then run a log over it, about ten feet long, in the shape of a roller, with a horse hitched to each end, and have forked limbs, with one prong that will answer for a stake and the other end for a hook, and stake it to the ground. Then take one horse and a turning-plow and plow it under in the spring. But when it grows up again you may have to cut a few holes to let the rabbits out.

J. H. CANADAY.

## Elsmore, Allen Co., Kas.

The Irrigation Farmer. Irrigated farms have a tendency to induce their owners to cultivate crops that will pay the largest profits, and the irrigation farmer is, in a vast majority of cases, a man of high intelligence, who studies to make his land as profitable as possible. He has broken loose from the traditions of his forefathers because he is surrounded by different conditions. He has learned what it means to control the water supply of his land, and he seeks to take advantage of this tremendous lever to cultivate his acres. Farming, with him, is a science, in which he has learned that the conditions which tend toward success are greatly in his favor if intelligently applied, and he uses this intelligence to produce the best results. Water is the predominating element in farming in the arid region, and its value will never be less than at present, while its average cost is likely to diminish through the use of improved methods for its conservation

### Publishers' Paragraphs.

and distribution.—Irrigation Age.

Send \$1.85 to KANSAS FARMER office for one years' subscription to Kansas Farmer and Chicago Weekly Inter-Ocean.

Every reader of this paper should notice the advertisement of Hapgood Plow Co., on page 16, which will interest every practical farmer.

Remember that you can get the Kansas FARMER and the Kansas City Daily Star, both for one year, for \$4, or the KANSAS FARMER and the Kansas City Weekly Star both for one year, for \$1.20.

We can furnish you Kansas Farmer and Peterson's Magazine, each one year, for \$1.75. Or Kansas Farmer and Arthur's Home Magazine for \$1.65. Send to this office amounts above named.

"Dairying for Profit, or the Poor Man's Cow," is practical, was written by a woman who knows what she is talking about, and is cheap—only 10 cents for a 25-cent book, to subscribers for the Kansas Farmer. Send to this office.

W. N. Willits, of Kensington, Kas., recently ordered a Kansas Farmer sewing machine. December 4 he wrote us as fol-lows: "The sewing machine came all right. Have not used it much, but think it is all right. Am well satisfied. Yours, W. N. Willits."

The Home Magazine, published at Washington, D. C., is brighter and better than ever. One dollar and 20 cents sent to Kan-SAS FARMER Co., Topeka, Kas., will pay for one year's subscription to both Kansas FARMER and Home Magazine. Drop us a card and we will send you a sample copy of the magazine.

The knowledge, how to make a profitable as well as beautiful garden, would be a valuable acquisition to any farmer or farmwife. The excellent magazine called American Gardening will impart the desired information. Send to Kansas Farmer \$1.15 and it will pay one year's subscription to KANSAS FARMER and American Garden-

"Bear in mind we are in the KANSAS FARMER family to stay with it. When our time is up let us know and we'll find the dollar. We are entitled to a premium [on account of sending two subscriptions], so send us the Atlas. Will try to rustle some new subscribers." These are the pleasant words of A. C. Genet, of Hesston, Kas., under date December 7.

Nothing is more desirable than that ev ery household in the United States should have a clear idea of the duties and hardships of its public men. Two articles on Congressional life, from the point of view of the closest personal intimacy, have been written for The Youth's Companion by the Speaker of the House of Representatives and by Senator Henry Cabot Lodge. "I could tell stories of the Senate and of the famous men who have been there and of

HOW AN OLD SOLDIER MAKES MONEY.

Mr. Editor.—No use being hardup with such chances open. Been selling Vapor Bath Cabinets several months and never made money so fast and enew in my life. Honestly its the best thing to cure Colds, Rheumatism, Gout, Pains, Neuragia, Malaria, Bright's Diseases, La Grippe and Blood, Nerve and Kidney Diseases I ever saw. Saves Dr. and medicine bills; renovates your system, and everybody, sick or well buys. The first week I made \$34, and since never less than \$40 a week. I am a G.A. E. man, old and was poor, and my comrades should write F. World Mfg. Co., Columbus, O. for instructions and make money as I have. OLD Soldies.

the historic scenes in which they have taken part, but the every-day life and work of a Senator is what, after all, the readers of The Companion want to understand."
That is what Senator Lodge describes in an article of unique interest. "Probably a great many young people think that the life of a Member of Congress, with \$5,000 a year, is a life of pleasure, comfort and lux ury, full of power and dignity; but the picture has some shadows as well as lights." These are shown by Hon. T. B. Reed in his article.

### Horns On or Off?

There was a time, not many years ago, when a muley or polled animal—one without horns—was something of a curiosity. Of course people did not go miles to see them, but most of our readers will remember how oddly and out of place the muley looked. More recently, by almost common consent, people have demanded that, for reasons of profit and humanity both to man and among animals themselves, there should be more muleys, and the practice of dehorning sprung into popular favor. This very excellent practice has extended to such breadth that we would not be at all surprised if eventually the animal with horns will be as much a curiosity as the muley was formerly. From the very beginning there have been those who bitterly opposed the dehorning of cattle as being unnecessary and cruel practice, but the tide of public opinion has turned against them, and dehorning is the rule now rather than the exception. While the operation in itself seems a little severe, it is certainly no more so than is the drawing of a tooth, to which we all submit willingly, because it subserves our best interests. The after consequences of dehorning are by the very successful Missouri breeders,

Gossip About Stock.

The Zenner-Raymond Disinfectant Co., of Detroit, Mich., desire to have a number of good local agents throughout Kansas to handle the Zenoleum sheep dip. They wish to refer all orders for Kansas to their nearest local agent.

C. A. Stannard, the Berkshire breeder, at Hope, Kas., reports brisk trade last week, selling eleven head at quite satisfactory prices. Mr. Stannard is a careful business man as well as a conscientious breeder, and simply deserves this success as one of our new advertisers.

Grant Hornaday & Co., owners of the Clover Leaf herd of Poland-China swine, at Fort Scott, Kas., are also getting interested in Hereford cattle quite strongly, having purchased more good quality pure-breds for their Kansas establishment than any other single breeder. A very creditable thing to do from an improved stock standpoint. Let the good work continue.

Among others that will hold a public sale of registered Poland-Chinas next month is Mr. D. A. Kramer, the well-known Washington county breeder, who will offer a choice lot of matured brood sows and a fine bunch of Wilkes gilts that will be bred to a son of the noted Chief I Know, that has more prize-winning sons and daughters than has any Poland-China sire living. More will be given later on concerning the offerings that will go into the sale.

Dietrich & Spaulding, Richmond, Kas. who this week advertise for sale their herd boar, Breckenridge 12987, say: "As an individual he is hard to beat, and as a pro-ducer we think he is the best we have ever owned in our herd. His pigs are very strongly marked after himself, having nice coat and markings, good length bodies on good feet and legs, extra back and growthy. We sell or trade him only because we have used him as long as we can to good advantage and have bred several of our best sows to him for spring farrow."

The Kansas Farmer takes pleasure in calling the attention of its readers interested in high-class Poland-China swine to the announcement elsewhere in this issue

county, who will hold a sale of choice bred

sows on February 1, 1897. All well-up Poland breeders know something of the merits

of the "Chief I Rnow" herd, especially the

Poland exhibitors throughout the State fair

circuits during 1895. The owners of this

herd predict that buyers will be in attend-

ance for every up-to-date swine breeding

district in the corn-growing States and that the offerings will merit a big attendance and end in the crack sale of the country.

THE COMING SWINE SALE, DECEMBER 21.

first-class Poland-China swine in Kansas is

the Rose Creek farm herd, in Republic

county, and under the management of Mr. John P. Tolford. Neither time nor money was spared by Mr. D. L. Bartlett, Jr., the

owner, in securing the best of foundation

stock, both swine and Jersey cattle, the lat-ter being specially selected by John O. Couch, the veteran Jersey judge and ex-

pert-the blood of Coomassie, Stoke Pogis

and Pedro. The swine herd was founded

with the best blood, selected from the lead-

ing herds in four States. For further in-

formation concerning the swine sale, consult

the sale advertisement elsewhere in this

issue and send for a copy of the sale cata-

Geo. Channon, Lockridge stock farm,

Hope, Kas., writes as follows: "I want to

buy a No. 1 yearling boar or about two years old, Poland-China. I prefer a Klever

Model boar, as my brood sows are Wilkes Sanders and Hadley. Would like to hear from every one that has something good.

Want an extra deep, long, broad, good head

ears and back and stand extra well on his

bunch of sows as there is in this country.

Herd is in fine shape. After selling eighty

five head of Poland-Chinas, November 24

still have 175 head as good as can be found

anywhere. If nothing happens more than

I know of, will have my second annual sale

in October, 1897. Have heard a whole lot about \$1,000 and \$500 hogs. I think if there

was one worth it, he was Corwin King by

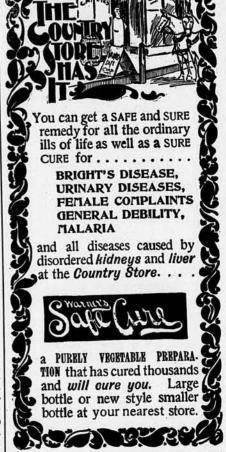
King Wilkes 9588 out of Miss Corwin 26745

S. and bought at my sale, November 24, by

I want to mate him with as good a

logue.

Among the latter-day establised herds of



## Strange l'ales

Tropical

**MEXICO** T will cost you only 2 cents to learn the TRUTH. Write us. Our circulars will tell you of our land and colony of 150 Americans, of COFFEE, VA-NILLA and RUBBER, and open your eyes to an opportunity to make a home and fortune you never dreamed of. No drouth; no irrigation; no frigid

cold nor torrid heat. \$5 per acre. Easy terms. The International Land and Colonization Co., Ltd., Mexico City, Mex.

Address GEORGE G. CARTER, Representative in United States,

Marquette Building,

SALESMEN to sell Cigars to dealers; \$25 weekly and expenses; experience unnecessary. Reply with 2c. stamp. National Consolidated Co. Chicago

FREE TO ALL WOMEN.

I have learned of a very simple home treatment which will readily cure all female disorders. It is nature's own remedy and I will gladly send it free to every suffering woman. Address MABEL E. RUSH, Jollet, Ill.



## **BIG SPECIAL OFFER**

## TO FARMER SUBSCRIBERS

The Kansas Farmer For 1897—Price Alone, \$1.00.

The Peterson Magazine For 1897—Price Alone, \$1.00.

## Both for the Year \$1.60! To separate addresses if desired.

Great Rock Island Route Playing Cards.

Send 12 cents in stamps to John Sebastian, General Passenger Agent C., R. I. & P. railway, Chicago, for the slickest pack r. railway, Chicago, for the shekest pack of playing cards you ever handled, and on receipt of such remittance for one or more packs they will be sent you postpaid. Orders containing 60 cents in stamps or

postal note for same amount will secure five packs by express, charges paid.

## A Look Through South Missouri for Four Cents.

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 knowledge can be obtained as to the productions and general topography of that highly-favored section that is now attracting the attention of home-seekers and investors the country over.

restors the country over.

The title of the book is "Snap Shots in South Missouri." It will be mailed upon Address.

Address. receipt of postage. 4 cents. Address
J. E. Lockwood, Kansas City, Mo.

Young men or old should not fail to read



really fraught with less danger than the | Messrs. Risk & Gabbert, of Weston, Platt drawing of a tooth, and both operations are of such short duration that the pain and shock are very slight. The best way, and indeed the only way, to bring a savage to reason is to first disarm him—take from him all defensive weapons. As a result he at once becomes tractile in disposition and is ready to listen to reason. It is so with horned animals; once remove their horns and they become quiet of disposition and are much more easily and economically handled, for which reason the profit from live stock is greatly enhanced. In the selection of an instrument for dehorning, that one which will remove the horn quickest, cutting clean and not crushing the horn, must occasion the least pain and therefore be the most humane and best. These are among the claims made for the Keystone dehorning clipper by its inventor and maker, A. C. Brosius, of Cochranville, Pa. Write to the gentleman, who will send you circulars, testimonials, etc., which will help you to reason this matter to your entire satisfaction and profit.

## Homes for the Homeless.

The opening of two Indian reservations in northeastern Utah to settlers opens up over three and one-half million acres of fine agricultural and stock-raising land for home seekers

The Uintah and Uncompangre reservations are reached by the only direct route the Union Pacific system, via Echo and Park City. E. L. LOMAX, G. P. & T. A., U. P. system, Omaha, Neb.

### To Chicago, St. Louis and the East via Burlington Route.

The traveling public is sure to find the best fast vestibuled trains to the East via the Burlington Route.

Handsome new compartment sleepers (same rate as standard sleepers), chair cars (seats free), Kansas City and St. Joseph to St. Louis; standard sleepers, chair cars and dining cars-"pay for what you order"—to Chicago. Take the "Vestibuled Eli" to Chicago and the "Vestibuled Limited" to St. Louis. Ask agent for tickets via the Burlington

Route. L. W. Wareley, Gen. Pass. Agt., St. Louis, Mo.

Thos. Slater's advertisement on page 15.

O. L. Thistler, Chapman, Kas."

## The Beterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making his department one of the interesting features of the KANSAS FARMER. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should be addressed direct to our veterinary Editor. Dr. N. S. MAYO, Professor of Veterinary Science, Kansas State Agricultural college, Manhattan, Kas.

"THUMPS."—I have a pig, 6 months old, that has the "thumps." What can I do for it? J. T. T.

La Harpe, Kas.

Answer.—Give a tablespoonful of castor oil once daily until the bowels move freely, then give easily-digested but nutritious soft food.

QUITTOR.—I have a mare that cut her foot on a barbed wire, about two years ago. It healed up but she is "club-footed." I have worked her until recently. Now she is very lame and there is a running sore at the top of her hoof.

J. C. of her hoof. Bazine, Kas.

Answer.—Trim off the mare's foot so as to get it in as good shape as possible, so there will be no leverage to pry the hoof loose. Wash out the sore with warm water once daily and inject some "'white lotion," made as follows: Zinc sulphate, 4 ounce; lead acetate, ounce; rainwater, 1 quart. If it doesn't heal readily write again next week.

ALFALFA.-Is alfalfa a good feed for horses, not to work on, but generally? Is it safe especially for mares? Is it not powerfully diuretic (stimulating to kidneys)? Will it not produce "heat" in the mare? What effect has fall grass, cured as hay, in these respects? Junction City, Kas. R. W. S.

Answer.—Alfalfa hay, properly cured, while not especially dangerous is not considered a first-class food as a steady diet for horses. Alfalfa stimulates the bowels, kidneys and the various glands of the body, and in this manner would tend to induce "heat" in the mare. Many horsemen like to give an occasional feed of good alfalfa hay to their horses to "clean them out and tone them up." Fall grass cured as hay does not possess the properties before mentioned.

CEREBRITIS, "STAGGERS."-P. F., Athol.

Answer.—Your horses died from ce rebritis. See last week's FARMER.

"Brown's Bronchial Troches" are of reat service in subduing Hoarseness and Coughs. Sold only in boxes. Avoid imita-

Thos. Slater has a message for every man on page 15.

## Tours in the Rocky Mountains.

The "Scenic Line of the World," the Denver & Rio Grande railroad, offers to tourists in Colorado, Utah and New Mexico the choicest resorts, and to the trans-continental traveler the grandest scenery. The direct line to Cripple Creek, the greatest gold camp on earth. Double daily train service with through Pullman sleepers and

Francisco and Los Angeles.
Write S. K. Hooper, G. P. & T. A., Denver, Col., for illustrated descriptive pamphlets.

## No Room for Doubt.

When the facts are before you, you must

be convinced.

The facts are that the UNION PACIFIC is leading all competitors, is the acknowl-

edged dining car route, and great through car line of the West.

The line via Denver and Kansas City to Chicago in connection with the Chicago & Alton railroad, with its excellent equipment of Free Reclining Chair Cars, Pullman Palace Sleepers and Pullman Diners, demands the attention of every traveler to the East.

Ask your nearest agent for tickets via this route.

E. L. LOMAX, this route.

Gen. Pass. and Ticket Agent.

## Half Rates Plus \$2.

Burlington Route to the West and Northwest, November 3, 17, December 1 and 15, round trip, twenty days limit, to Nebraska, Kansas, Wyoming, Utah, Black Hills, and certain parts of Colorado. Splendid through trains of chair cars (seats free), and handtrairs of chair cars (seats free), and handsome compartment observation vestibule
sleepers. Only dining car line to Denver
via St. Louis and Kansas City, cafe plan
(pay only for what you order). The Burlington Route is the original Harvest Excursion line. See the magnificent corn
crops of Nebraska. Send to the undersigned for pamphlets on Missouri and Nebraska, and consult local agent for rates
and train service.

L. W. WARELEY,

General Passenger Agent, St. Louis, Mo.



The Safest, Best BLISTER ever used. Takes place of all liniments for mild or severe action. the place of all liniments for mild or severe action. Removes Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce ear or blemish. Every bottle sold is warranted to give satisfaction Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland O.

### MARKET REPORTS.

Kansas City Live Stock.

KANSAS CITY, Dec. 7.—Cattle—Receipts since Saturday, 9,072: calves, 313: shipped Saturday, 2,033 cattle: 714 calves. The market was slow, weak and in some cases lower. The following are representative sales:

SHI	PPING A	ND DRI	SSED BE	EF STEE	RS.
	Ave. 1,133	Price		Ave.	Price 84.40
	1,326			1,396	4.15
19	1,118	4.00		1,203	8.90
21	1,316	8.75		1,108	8.60
	TEXAS	AND I	NDIAN S	LEEKS.	
20	917	82.90	The second second		
	N.	ATIVE	HEIFERS		
24		\$3.50		1,110	
7	835	3.35	29	827	8.25
25	902	3.15	33	767	3.10
35	751	8.00		1,060	2.83
		NATIV	E COWS.		
	1,460		21	996	
5	962	8, 15	1	1,140	3.00
18	845	2.75	18	1,111	2.65
1		1.65		1,050	1.65
	N	ATIVE	TEEDERS	L	
00	1 000	40 05	1 00	1 150	40 05

	1 900	1.00			1.00
Н	NA.	TIVE F	BEDERS.		
	20 1,206 8			1,156	
	9 932			1,035	
4	21,200	8.25	1 Hol.	1,100	2.75
	NAT	IVE 87	OOKERS	1.	
ı	2 500 1		1		\$3.70
1	10 898	3.6714	81	576	3.60
	2 665	3.20	1	860	3.00
	1 500	2.40		642	
•	Hogs-Receipts	sinc	e Sat	urday,	9,725;
	shipped Saturday	y, none	. The	market	was 50
	lower. The follo	wing a	е герге	sentativ	esales:
	15103 83.25   6	32188	\$8.20 I	100200	83. 1754
	74243 8.1714 8	37208	8.1714	76201	3.1756
•	90180 3.1746 3	78248	3.1714		
	39179 3.15	8270	8.15	56229	
	00 100 0 11		0.44	04 100	0 45

1	90180	3.17%	78248	3.1714	66168	3.15	
ı	39179	3.15	58270	8.15	56229	3.15	
١	29186	8.15	62274	3.15	24103	3. 15	
4	11111	3.15	71255	3.15	36260	3.15	
į.	44128	3.15	72168	3.15	65192	3. 15	
ı	65257	3.15	66264	8.15	76192	3.15	
i	25264	3.15	21132	8.15	61271	8.1214	
ı	40246	3.1214	78242	3.1214	74281	3.1214	
J	40201	3.1214	53307	3.10	107302	8.10	
í	62320	3.10	59 318	3.10	56326	3.10	
	68277	8.10	94187	3.0714	31343	3.0714	
Á	16419	3.05	7418	8.05	42 221	3.05	
	110139	8.05	133105	8.05	1440	3.00	
	4442	3.00	1220	3.00	1520	2.90	
	3216	2.90	1400	2.75	1290	2.75	
	1270	2.75	1280	2.15	1220	2.15	
			A STATE OF THE PARTY OF				

1...270 2.75 | 1...280 2.15 | 1...220 2.15
Sheep—Receipts since Saturday, 6,029;
shipped Saturday, 1,575. The market was
steady but slow. The following are representative sales:
738 N. M. m.. 85 \$3.25 | 531 Col. ew... 81 \$2.70
244 Oregon....101 3.00 | 746 Col. ew... 62 2.35
Horses—Receipts since Saturday, 386;
shipped Saturday, 74. There were no material changes in the market this morning. Receipts continue heavy of the common variety.
Not many sales were made this morning, but Not many sales were made this morning, but there was a strong inquiry for mules. A large attendance of buyers is expected at the opening of the regular auction sales to-morrow.

## Chicago Live Stock.

CHICAGO, Dec. 7.—Cattle—Receipts, 17,500; market steady to weak: fair to best beeves, \$3.50@5.60; stockers and feeders, \$2.75@4.00; mixed cows and bulls, \$1.50@3.90; Texas, \$2.80 @4.35.

Hogs—Receipts, 48,000; market steady to 5c lower; closed strong; light, \$3.10@3.35; rough packing, \$2.00@3.00; mixed and butchers, \$3.10 @3.35: heavy packing and shipping, \$3.05@3.30; pigs, \$2.80@3.35.

Sheep-Receipts, 16,000; market steady; native, \$2.00@3.85; western, \$2.50@3.40; lambs, 83.25@5.00.

St. Louis Live Stock.
St. Louis, Dec. 7.—Cattle—Receipts, 4,000; market steady.

Hogs-Receipts, 6,000; market 10c lower; Yorkers, \$3.00@3.10; packers, \$2.90@3.10; heavy,

\$2.75 @ 3.1214. Sheep—Receipts, 3,000; market steady.

Chicago Grain and Produce.

Dec. 7.	Opened	High'st	Low'st	Closing
Wh't—Dec May July Corn—Dec	77% 80% 74% 23 23	77% 81 75% 28	77 80 74 1/4 22 1/8	77% 80% 74% 23
Jan May Oats — Deo Jan May	26 1816 1817	28% 26% 18% 18% 21%	23 25 % 18 % 18 % 21 %	23% 26% 18% 18% 21%
Jan May	6 75 7 5214 7 85	6 75 7 5734 7 90	6 70 7 50 7 821/2	
Jan May	8 80 4 0214	8 85 4 071/4	3 80 4 00	8 70 8 85 4 0714
Jan May	8 80 8 95	8 85 4 00	3 80 3 95	3 85 3 85 4 00

Kansas City Grain.

KANSAS CITY, Dec. 7.—Receipts of wheat to-day showed considerable improvement. The grades on the floor were, as a general thing, not of the best, and the market was very slow throughout. No. 2 soft wheat was steady, but No. 2 spring and No. 2 hard were weaker. Low grades were hard to move at any price. The elevators were doing very little, and the local millers bought sparingly.

Receipts of wheat to-day, 78 cars; a year ago, 151 cars.

Sales were as follows on track: Hard, No. 2.

## Established 1850. Horse Owners! Use BROOMCORNF.JELKE & SON

Cash Advances Made on All Consignments. REFER TO ANY CINCINNATI BANK.

WRITE FOR FULL PARTICULARS.

53 Walnut St., Cincinnati, O. Commission Merchants and Dealers in Broomcorn and all kinds of Broom

Materials and Machinery.

# The Kansas City Stock Yards

are the most complete and commodious in the West,

and second largest in the world! The entire railroad system of the West and Southwest centering at Kansas City has direct rail connection with these yards, with ample facilities for receiving and reshipping stock.

	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts for 1895	1,689,652 922,167 392,262 218,805	2,457,697 3,170,827 1,876	864,718 567,015 111,445		103,368
Sold to shippers Total Sold in Kansas City, 1895	1.533.234	2.446,202	748.244	41,588	200

CHARGES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 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. F. MORSE, E. E. RICHARDSON, H. P. CHILD, EUGENE RUST, ces. and Gen. Manager. Secretary and Treasurer. Assistant Gen. Manager. Gen. Superintende

W. S. TOUGH & SON, Managers HORSE AND MULE DEPARTMENT.

nominally 78@79c: No. 3, 1 car fancy 77½c, 1 car 76c, 3 cars 76c, 4 cars 73c: No. 4, 1 car 69c, 1 car 63c, 2 cars 60c, 2 cars 65c: rejected, nominally 50@60c; no grade, nominally 40@50c. Soft, No. 2, 2 cars 93c: No. 3, 1 car 88c, 1 car 85c; Sott, No. 2, 2 cars see: No. 3, 1 car see, 1 car see, No. 4, nominally 75@85c, rejected, nominally 55@65c. Spring, No. 2, 1 car fancy 77c, 1 76%c, 1 car 56 lbs. 75c; No. 3, 1 car 70c, 1 car 72c; rejected, nominally \$1@60c.

The receipts of corn here to-day were heavy,

The receipts of corn here to-day were heavy, being nearly twice as much as a year ago, The demand, however, from Texas interior points was very good, and offerings were quite well absorbed. The most remarkable feature of the corn market to-day was buying on the part of certain local cattle feeders, who live within 100 miles of Kansas City in Missouri. Farmers, they said, are holding corn at higher prices than they can afford to pay, hence they prices than they can afford to pay, hence they find it profitable to come on the market here and ship to their local point. There was little export business done, some of the bidders talking of 2740 for No. 2 mixed at New Orleans. Futures were rather quiet, but sales of 10,000 bushels May mixed were made at 20% c and 20,-000 bushels at 2014c.

Receipts of corn to-day, 226 cars; a year ago,

Sales by sample on track: No. 2 mixed, 5 Sales by sample on track: No. 2 mixed, 5 cars 19c, 5 cars 18½c, 2 cars 18½c, 2 cars 18½c, 2 cars 18½c, 2 cars 18½c, 15 cars 18c; No. 3, 2 cars 18½c, 15 cars 18c, 1 car 17½c, 9 cars 17½c, 1 car 17½c, 4 cars 17ć; no grade, 1 car 17½c, 1 car 16c; No. 2 yellow, 1 car 18½c; No. 3 yellow, 1 car 18½c; No. 2 white, 1 car 19½c, 4 cars 19c; No. 3, 2 cars choice billing 19½c, 2 cars 16c, 1 car 18½c; No. 4, 1 car 18½c; No. 4, 1 car 18½c; 1 car 17%c.

The oats market was more active to-day, but prices show no change, the feeling being a

Receipts of oats to-day, 25 cars: a year ago, 26 cars.

ago, 26 cars.

Sales by sample on track, Kansas City: No. 2 mixed, nominally 17¼@18½0: No. 3, 1 car 17c, 1 car 18c; No. 4, nominally 14@15c: No. 2 white, new, nominally 21@23c, old, nominally 22@25c; No. 3, new, 2 cars 18½c; old, nominally 21@22c; No. 4 new, 1 car 17%0, 2 cars 17%0.

Kansas City Produce.

KANSAS CITY, Dec. 7.—Butter—Creamery, extra fancy separator, 22c; firsts, 20%c; dairy, fancy, 13c; fair, 10c; store packed, 8c; packing

fanoy, 18c; fair, 10c; store packed, 8c; packing stock, 6c; country roll, neatly packed and sweet, 12c; choice, 8@10c.

Eggs—Strictly fresh stock, 18½c per doz.; cold storage stock, 14½ (15c.

Poultry—Hens, 4c; roosters, 12½c each; springs, 5c; coarse springs and roosters, 4c; broilers, from 1½ to 2 lbs., 6c; turkeys, over 7 lbs., 7c; under 7 lbs not wanted; old gobblers, 5c; ducks, 6½c; geese, 6c; pigeons, 75c per doz Dressed poultry—Turkeys, 7½c; chickens, hens, 5@5½c; springs, 6@6½c; broilers, 7@7½c; ducks, 7½c; geese, 7c.

7/40: geese, 70.

Apples—Choice eating stock sells from 40 a 60c a bu.; inferior, 80@35c a bu.; cooking stock, 20@35c: Ben Davis, 20@40c; Wine Saps, 40@65c 20@300: Ben Davis, 20@400; while Saps, 40@000, according to quality: Huntsman's Favorite, 50 @600 per bu. for fancy stock in a small way; shippers are paying for Northern Spy \$1.00 a bbl. in ear lots; for fancy fall and winter varieties, \$1.00@1.25 a bbl.; Jonathans, \$1.50 a bbl. for fancy and 75c@\$1.00 for No. 2 stock; New York and Michigan stock; \$1.00 acc.

York and Michigan stock, \$1.00 per bbl.
Potatoes—Home grown, 20c in a small way;
16@17c in car lots. Wisconsin and Minnesota
Burbanks, 35@36c in car lots, 40c in a small
way; Pearls, 20 less: Iowa stock, 25@28c in car 30 à 35c in a small way; sweet potatoes, 20@40c in a small way.

GRASS AND FIELD 

MITCHELHILL & RAMSEY, ST. JOSEPH. MISSOURI.

When you write mention Kansas Farmer

Consign Cattle, Hogs and Sheep to ONE 8 STAR

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John Moffett, Manager. L. B. Andrews, Office. T. S. Moffett, W. C. Lorimer, Cattle Salesmen. H. M. Baker, Hog and Sheep Salesman. W. A. Morton, Solicitor.

## MOFFETT BROS. & ANDREWS Live Stock Commission Merchants.

Feeders and stockers purchased on orders. Personal attention given to all consignments. Correspondence invited. Market reports furnished.

References:—National Bank of Commerce, Kansas City, Mo.; Citizens' State Bank, Harper, Kas.; Bank of Klowa, Klowa, Kas.

Rooms 67-68 Live Stock Exch'ge, Kansas City, Mo.

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Worth \$100 a year and more to all who own land, a garden. orchard or conservatory; covers, in plain language, by practical men, the care and cultivation of flowers, fruits, plants, trees, shrubs, bulbs, etc., and tells how to make home grounds attractive.

AMERICAN GARDENING 4 America's brightest and most reliable gardening and family paper. Established fifty years. Illus. Weekly. \$1.00 a year, WITH HANDSOME PREMIUM.

To introduce it to new readers we will send American Gardening 3 months (12 numbers) to any address on receipt of 10 cents, in stamps or coin. Sample free.

## AMERICAN GARDENING, P.O.Box 1697, N.Y.

Or send \$1.15 to this office and it will pay for Kansas Farmer and American Gardening, both for one year. Address KANSAS FARMER CO., Topeka, Kansas.

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VIA COLORADO SPRINGS

The Chicago, Rock Island & Pacific Railway is

hours quicker

To Cripple Creek than any other line.

Full particulars by addressing JOHN SEBASTIAN, G. P. A., Chicago.

## CRIPPLE CREEK

The Santa Fe Route is the most direct and only through broadgauge line from Chicago and Kansas City to the celebrated Cripple Creek gold mining district. Luxurious Pullmans, free chair cars, fastest time. and low

## GOLD! GOLD!!

Address G. T. Nicholson, G.P.A., A.,T.&S.F. Ry., Monadnock Blk., Chicago, or W. J. Black, A. G. P A., Topeka, Kas., and ask for free copy of profusely illustrated book descriptive of Cripple Creek. It is well worth reading.

SANTA FE ROUTE

## The Poultry Hard

ROOST FOR TURKEYS.

A Cheaply-Made Open Shed That Serves as a Protection.

Turkeys will always seek a high roost, and they resort to the tree-limbs instinctively to escape danger from enemies that may reach them on the ground. The limbs of trees, however, are not suitable roosting places, as the turkeys are thus exposed to cold and driving storms, frequently their feet becoming frozen to the limbs. An open



SHED ROOST FOR TURKEYS.

shed, with roost as high as can be located, as may be noticed in the illustration, will serve as a protection, and may be made either of boards or by arranging cornstalks on stakes and poles in some manner so as to accomplish the purpose.—Farm and Fireside.

Too Much of a Good Thing.

Glass on the south, east and west of the poultryhouse is of course necessary to the health and combort of the fowls. One can err, however, on the side of too much glass. It is a great mistake to make a poultryhouse after the pattern of a greenhouse. It won't do at all, for the change between day and night temperature is far too much. The fowls will become sick and unproductive. A window for every six or eight running fect on the south side with a window on both the east and west sides, will be all the sash surface necessary. In cold northern climates I would advise the use of shutters or double windows or both. These will keep out any amount of cold and wind and pay for them-selves a hundred times over.—W. P. Perkins, in National Stockman.

Rice Is Good for Fowls.

Rice is said by those who have tried it, to be the very best of food for fowls, and that it possesses more fattening qualities than corn. In the Carolinas and the rice growing regions of the south, rice meal or broken rice can be purchased from one-fourth to onehalf cent per pound, and is largely used as a feed in those sections. Poultrymen within easy reach of the southern or guif seaboard can thus get a cheap poultry food at small cost for freight. Rice will never produce diarrhoea in fowls or animals like some grains, but will check it when produced by other causes. With broken rice, Kaffir corn, and wheat, we not only have a good ration for chicks, but an ideal food for broilers.-Southern Fancier.

To Cure Feather Pulling.

Feather pulling is a vice that comes from confinement and idleness; there is no remedy, but it may be prevented in a measure by so feeding the fowls that they will be compelled to scratch. It is contagious, to a degree if one or two fowls become addicted they are apt to teach the others. For this reason, preventive measures in the way of giving the fowls something to do should be adopted, but if any of the hens acquire the habit, the quicker they are killed and marketed the better, or soon the whole flock will be at it, and this means ruination to all.-Rural World.

Thoroughred poultry pay best. Select your breed, basing judgment upon their characteristics and surroundings, and then keep them pure: introduce new blood every other year

It is a good policy on general principles to give the hens a dusting over frequently with Persian insect powder; hold the fowl up side down, and ruffle the feathers the "wrong way."-Rural

EDITOR KANSAS FARMER:-The card from a subscriber which you have referred to me, asking for a cure for chicken cholers, to hand.

First, remove all well birds to new and clean quarters. Wring the necks of all sick birds and burn their carcasses and disinfect their quarters. The virus of cholera is not diffusable in the air but remains in the soil, which becomes infected from the discharges of the sick fowls and is carried from place to place on their feet. Use lime in abundance about the yards, then spade deeply. For cases not too far gone, give sugar of lead, pulverized opium, gum camphor, of each 60 grains, powdered capsicum 10 grains. Dissolve the camphor in just enough alcohol to do so without making a fluid, then rub the other ingredients in the same (camphor and alcohol) mixture, and mix this with enough of fine corn meal to make a stiff dough. Separate this mass into fifty pills, giving one to each grown chicken each day. The birds that are well enough to eat should have enough of powdered charcoal put into their soft feed to color it slightly, also five drops of carbolic acid to every twenty fowls, in the hot water with which the soft feed is moistened.

Homeopathic treatment.—Dissolve two or three dozen pellets of veratrum album in their drinking water, or arsenicum iodatum 3. Mix about two pounds of meal with two drams of this remedy and leave where they can eat it at will.

Parched corn, whole or cracked, is an excellent food for flocks afflicted with cholera, to be used only as a part

To prevent, keep everything about the yards and coops clean, feed no soured food, don't feed more than will be eaten up clean, give plenty of good grit, and cholera medicine will not be needed. D. A. WISE.

Topeka, Kas.

Treatment of Poultry Manure.

Poultry manure should be removed from the houses every day and should be kept upder cover. Every time droppings are added to the pile, sprinkle on either land plaster or kainit. The latter is to be preferred because it con tains potash, in which the poultry manures are deficient. The object of the addition is to prevent the escape of ammonia, and the nose will be a safe guide in determining the amount of Fainit to use. The quantity necessary will vary with the degree of moisture of the manure and the temperature of the air. Add enough so that there is no odor of ammonia when the pile is stirred. The mixture of kainit with hen manure fits it for use for hoed corps. It should be made fine before application.-Western Plowman.

Lice Affect the Egg Supply.

The presence of lice on our hens is a great detriment to the egg supply. These can be driven away by the persistent use of kerosene emulsion. Hens must be kept clean, that is, the droppings must be removed often, so as to prevent any bad smell, and give the hens a chance to bathe in the road dust gathered in the dry weather of summer. Eggs will not hatch if the hens are covered with lice and mites. Eggs will not hatch if come of them are broken in the nest and allowed to remain and befoul the sound eggs, stopping up the air cells and thereby killing the germ. Buyers of eggs from breeders of fancy fowls should bear in mind and not blame the seller for poor hatches, when the fault lies with then selves when these conditions exist .-Western Plowman.

\$100 Reward \$100.

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages, and that is catarrh. Hall's Catarrh Cure is the only positive cure known to the medical fraternity. Catarrh being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of directly upon the blood and mucous surfaces of the system, thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers, that they offer one hundred dollars for any case that it fails to

cure. Send for list of testimonials.

Address, F. J. CHENEY & CO., Toledo, O.

Sold by Druggists, 75 cents.

Every man should read the advertisement

Treatment for Chicken Cholers.



BRIGHT'S DISEASE

Is the most dangerous of all Kidney Diseases. Pains in the Back, Irregularities in the Urine, Swelling of the Limbs or Abdomen are the first symptoms

## Dr. J. H. McLEAN'S LIVER AND KIDNEY BALM

Has proven, in thousands of cases and for many years, to be the Peerless Remedy for this dreaded disease. It relieves promptly and works a permanent cure

FOR SALE EVERYWHERE. PRICE, \$1.00 PER BOTTLE

THE DR. J. H. MCLEAN MEDICINE CO., ST. LOUIS, MO.



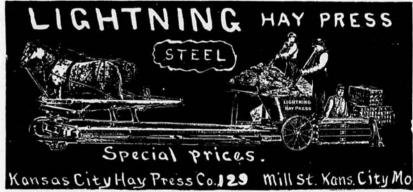
## Horse Owners ATTENTION!

We have been advertising for years to pay \$100 reward if Tut-tie's Elixir failed to cure colic, horse all, shoe bolls when first started, callous of all kinds, etc., but have never as yet been called upon to pay this reward. Doesn't this fact prove conclusively that this great remedy will do exactly what we claim for it? If you are not satisfied at any time, you can have your money refunded.

## TUTTLE'S ELIXIR

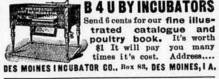
s a sure cure for Colic, Horse Ail, Spinal Diseases, Spavins, Ring-lone, Cockle Joints, Contracted and Knotted Cords, Curbs, Splints, sweeny, lameness of all kinds, etc. Price 50 cents a bottle. Sold by most dealers; a sample bottle will be sent by mail for three -cent stamps for postage.

DR. S. A. TUTTLE, Sole Proprietor, 27 Beverly Street, Boston, Mass.







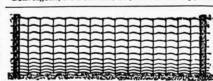


HATCH Chickens BY STEAM-**EXCELSIOR** Incubator

## DEAD • EASY!

The Great Disinfectant Insecticide KILLS HEN LICE By simply painting roosts and dropping-boards. Kills Mites and Lice, cures Colds and Cholera, also kills Hog Cholera germs. If your grocer or druggist does not keep it, have them send for it.

THOS. W. SOUTHARD, Gen. Agent, 528 Delaware St., Kansas City, Mo.



## Behold, What a Fire a Little Spark Kindleth.

One little runty pig crawled through a rail fence from the highway, meandered up around the barn, sneaked through the gate and introduced Hog Cholera to the fattening herd. The resulting loss would have covered the cost of pig-tight Page fence for that whole farm. Are you protected?

DO YOU WANT TO BETTER YOUR CONDITION? If you do, call on or address: The Pacific Northwest Immigration Board, Portland, Oregon.



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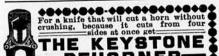
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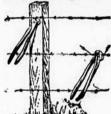


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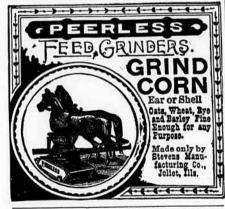




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"Wanted," "For Sale," "For Exchange, and small or special advertisements for short time, will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it!

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## THE STRAY LIST.

FOR WEEK ENDING NOV'R 26, 1896.

Linn county-William H. Ward, clerk. MARE—Taken up by V. W. Brice, in Blue Mound tp., October 30, 1896, one bay mare, about 4 years old, fifteen hands high, weight about 1,050 pounds, black mane and tail, both hind feet white, star in fore-head, lump on left hind ankle; valued at \$20.

Comanche county — J. E. Harbaugh, clerk. STEER—Taken up by M. Schoub, in Rumsey tp. (P.O. Coldwater), October 24, 1896, one red and white spotted Western steer, 3 years old, medium size, branded  $\Lambda$  enclosing f; valued at \$12.50.

Bourbon county-H. Frankenburger, clerk. PONY—Taken up by C. G. Beaman, in Marion tp., November 2, 1896, one chestnut sorrel horse pony, supposed to be 7 or 8 years old; valued at \$10. PONY—By same, one clay-bank horse pony, white strip on face, supposed to be 7 or 8 years old; val-ued at \$5.

Labette county-J. F. Thompson, clerk. HORSE—Taken up by E. F. Ferril, in Mt. Pleasant tp. (near Altamont). October 22, 1896, one bay horse, fifteen hands high, white spot in forehead. HORSE—By same, one black horse, fifteen and a half hands high, wire cut on left front foot.

Shawnee county—Chas. T. McCabe, clerk. COLT—Taken up by C. W. Edson (P. O. Silver Lake), one sorrel mare colt, 1 year old past, two white hind feet. COLT—By same, one black horse colt, 1 year old past, white face, one white hind fobt.

Pottawatomie county—Frank Davis, clerk. STEER.—Taken up by C. J. Reed, in Lincoln tp., October 23, 1896, one black and white yearling steer, square crop off left ear, plece of rope in dewlap, indistinct brand on left hip, has horns; valued at \$15. STEER.—By same, one red and white yearling steer, branded A on left shoulder and 1 on left hip; valued at \$15.

Wabaunsee county—J. R. Henderson, clerk STEER—Taken up by Wm. Breymyer, in Newbury tp. (P. O. Paxico), November 3, 1896, one red and white spotted two-year-old steer, small hole in right

Wyandotte county—Leonard Daniels, clerk. STEER—Taken up by L. E. Scott, in Prairie tp., on or about October 15, 1895, one dark red steer, no white. I year old past, split in right ear, seems to have been dehorned; valued at \$16.

FOR WEEK ENDING DEC'R 3, 1896.

Montgomery county-J.W. Glass, clerk. HORSE—Taken up by Wm. Adams, in Fawn Creek tp.. one black horse, 4 years old, hind feet white. HORSE—Taken up by R. B. Knock, in Caney tp., October 28, 1896, one black horse, 4 or 5 years old, hind feet white.

FOR WEEK ENDING DEC'R 10, 1896.

Lyon county-M. Q. Starr, clerk.

Lyon county—M. Q. Starr, clerk.

MARE—Taken up by Frederick Kluth, in Center tp., November 19, 1896, one black mare, about 4 years old, white spot in forehead, medium size, no brands visible; valued at \$16.

TWO STEERS—Taken up by J. B. Rathke, in Center tp., November 11, 1896, one red steer, white face, 4 years old, medium size, indistinct brand on left side; valued at \$25.

And one blue-roan steer, 4 years old, medium size, indistinct brand on left side; valued at \$25.

TWO MARES — Taken up by F. A. Layton, in Agnes City tp., November 30, 1896, one black mare, 4 years old, white spot on forehead and nose; valued at \$15.

And one bay mare, coming 2 years old, white spot in forehead; valued at \$15.

Wilson county—T. D. Hampson, clerk.

Wilson county-T. D. Hampson, clerk. MARE—Taken up by R. R. Brinkley, in Clifton tp., November 27, 1896, one brown mare, right hind foot white and white spot in face, 3 years old; val-ued at \$20.

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