

# KANSAS FARMER

ESTABLISHED IN 1863.  
VOL. XXXVI. NO. 18.

TOPEKA, KANSAS, THURSDAY, MAY 5, 1898.

SIXTEEN TO TWENTY  
PAGES—\$1.00 A YEAR.

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**CENTRAL KANSAS HERD OF THOROUGHBRED** Poland-China hogs. C. S. Snodgrass, Galt, Rice county, Kansas, breeds the best. Stock for sale now. Come or write.

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**POLAND-CHINA SWINE AND LIGHT BRAHMAS.**—Barred Plymouth Rocks, Dark Brahmas, Silver L. Wyandottes, Buff Cochins, Buff Leghorns. Eggs, \$1 per setting. A. M. RICHARDSON, Altoona, Kas.

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**BLACK LANGSHANS EXCLUSIVELY**  
EGGS \$1.50 for 13; \$2 for 26. A few fine cockerels to sell.  
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**EGGS—75c per 13:** White, Brown Leghorns, Black Minorcas, Langshans, Silver Hamburgs, Partridge Cochins, B. P. Rocks. ZACHARY TAYLOR, Marion, Kas.

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A. H. DUFF, Larned, Kas.

## YOUR LAST CHANCE!

To get at less than one-third value some of the best B. P. Rocks in the West—\$10 will buy yard of eleven fine females and one fine cockerel. Write quick, as this ad. will not appear again.  
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My stock has been tested in the strongest competition both west and east. Stock and eggs for sale. Write for descriptive circulars.  
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EGGS, \$1.00 PER 15.

Also, free with each setting, a recipe for making a cheap Lice Killer Paint. Send for circular.

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**AT FARMERS' PRICES.** Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Light Brahmas, Silver Wyandottes, Black Javas, S. C. Brown Leghorns White Leghorns, Buff Leghorns, Silver-Spangled Hamburgs, White Guineas, Pearl Guineas and Buff Turkeys. Single birds, pairs, trios and breeding pens. Our stock is from the leading breeders and prize-takers of the country. Birds from \$1 up. Eggs \$1 per 13; \$2 per 26. Recipe for "Liquid Lice Killer" free with each order. (Enclose stamp.)  
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Registered stock. Send for 44-page catalogue, prices and history, containing much other useful information to young breeders. Will be sent on receipt of stamp and address. J. M. Stonebraker, Panola, Ill.

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Mated for best results. Also Barred Plymouth Rock chickens and eggs for sale. Correspondence or inspection invited. Mention FARMER.  
C. J. HUGGINS, Proprietor, Wamego, Kas.

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

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100 head. Foundation stock, Tecumseh. Boars in service, Tecumseh Joe 13444 S., Chief 13840 S., Butler Wilkes 1764 S., U. S. Tecumseh 17850 S. 15 fall gilts, 30 spring pigs, 30 summer pigs. Inspection and correspondence invited.  
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A choice lot of gilts sired by Ideal U. S. and bred to Tecumseh Chief. Also some good Tecumseh Chief gilts bred to Look Over Me (he by old Look Me Over) and some good fall pigs, both sexes. Write and get my prices or come and see.  
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Twenty-five very fancy fall boars, some of which will do to head any herd or to go in any show ring. Sired by Knox-Ali Wilkes 18179 S. and Highland Chief 18354 S. by Chief Tecumseh 2d 9115. No better sires in any herd. Our prices very low if taken at once. One hundred fine spring pigs by same sires.  
Plymouth Rock Eggs.  
DIETRICH & SPAULDING, Richmond, Kas.

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**DIVERDALE HERD OF** Chester White swine and Light Brahma poultry. J. T. LAWTON, BURTON, KAS., proprietor. All stock guaranteed. I can also ship from Topeka, my former place.

## SIXTEEN TO ONE HERD

REGISTERED POLAND-CHINA SWINE.

Herd boars, Gold Standard Wilkes by Guy Wilkes 2d 17777 S. and Ideal Quality by Darkness Quality 2d 14361 S. Brood sows, Tecumseh, Black U. S. and Wilkes. Thirty spring pigs, both sexes, ready to go. Farm two miles north of Welda.  
J. M. COLLINS, Welda, Anderson Co., Kas.

## BLUE RIBBON HERD

PURE POLAND-CHINA SWINE

and Barred Plymouth Rock chickens. Tecumseh Short Stop 14750 at head of herd, assisted by Hadley Jr's Equal 15119 and King Tecumseh 15307. One hundred choice pigs for sale. Farm located three miles southwest of city. Calls or correspondence invited.  
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## Nation's Poland-Chinas.

Fifty boars and gilts for this season's trade. My herd boars consist of Darkness Quality 14361, Princeton Chief 14543, Col. Hildreth 37247 and Standard Wilkes. My sows are splendid individuals and of the right breeding. Personal inspection and correspondence invited.  
LAWRENCE NATION, Hutchinson, Kas.



## POLAND-CHINAS.

Guy Darkness 18292 and Best Nims 19612, herd boars. Sept. '97 boars and gilts for sale. Guy Darkness gilts will be bred to Best Nims for fall farrow. Correspondence or inspection of herd solicited.

S. W. HILL, Hutchinson, Kas.

## BLUE MOUND HERD

BERKSHIRE SWINE.

Herd boars, Victor Hugo 41799 (sire Imp.), Barkis 30040 (weight 800 lbs.), Prince Jr. 17th, from World's Fair winner. Choice pigs from five different strains. Also breed Shropshire sheep, M. B. turkeys and B. P. Rock chickens. Write.  
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## PURE-BRED POLAND-CHINA SWINE.

Brood sows by Wren's Medium, Hadley M. Washington Protection Boy, Moses Wilkes Tecumseh (by C. T. 2d), Tanner 19212 a grandson of the famous Hildreth, at head of herd, assisted by Prince Darkness, out of Darkness 1st. Corwin Sensation and Darkness 1st are very choice sows. Some October Tanner pigs for sale. Get one for a herd header. Also some One Price Medium 2d pigs for sale. Three young boars ready for service. Write for prices.  
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ESTABLISHED 1882. SERVICE FEE \$50.

## KLEVER'S 1st MODEL

18245 S.

Sired by Klever's Model 14664 S., the \$5,100 king of boars; first dam Graceful Maid (43851); second dam Graceful F. 3d (29670), litter sister to Old Look Me Over 9011, the \$3,600 boar. This gives Klever's 1st Model all that could be asked in breeding and sale ring backing. He is black as ink, low down, deep and broad, extra head and ears. His get follows the pattern perfectly. He will be assisted by other good boars in service on thirty matured sows of modern type and breeding. I sell nothing but tops; keep my knife sharp for culls. Free livery at Roberts' stables.  
F. W. BAKER,  
Council Grove, Morris, Co., Kas.

## Mains' Herd Poland-Chinas

Headed by the three grand breeding boars, Model Combination—his sire was J. D. Model, he by Klever's Model 14664 out of McKelvey's Lass 42107; his dam Lady Chief 42919, she by Chief Tecumseh 2d 9115 and out of Ralph's Pet 42783; One Price Chief—his sire Chief Tecumseh 2d 9115, his dam Alpha Price 38785, she by One Price 4207; Kansas Chief 33615—she by Royal Chief's Best and out of Bell O. 74594. The sows are all selected and equal in breeding and quality to any. A few sows bred will be offered. Young males and gilts ready. Satisfaction guaranteed.  
James Mains, Oskaloosa, Jefferson Co., Kas.

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For stock of all kinds. Write for prices. Manufactured by the KANSAS CITY WHITE LEAD & LINSEED OIL CO., 24th & Broadway, KANSAS CITY, MO.

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## SHADY BROOK POLAND-CHINAS

H. W. CHENEY, Prop., NORTH TOPEKA, KAS.

Cheney's Chief I Know, assisted by Model Hadley, at head of herd. Topeka is the best shipping point and my stock the best kind to buy. When in Topeka call at 1132 N. Harrison St. and be shown stock.

## Verdigris Valley Herd Poland-Chinas.

125 head. The best individuals and most popular strains that money and judgment could buy and experience breed. Thirty choice spring pigs, both sexes, by Black Stop Chief 16310 S. he by the great breeding boar Black Stop 10550 S., a son of the World's Fair winner, Short Stop. Write or visit us  
WAIT & EAST, Altoona, Wilson Co., Kas.

## MILES BROTHERS' HERD

Registered Poland-Chinas.

Peabody, Marion Co., Kas.

We have for sale now some choice fall pigs by Miles' Look Me Over and out of a full litter sister to Corwin Sensation, that sold February 2, 1898, at Mr. Wren's sale for \$167.50. Also some nice ones by Hadley Corwin Faultless, and by a son of Chief Tecumseh 2d. We can suit you in quality and price. Write us.

## PLEASANT VALLEY HERD

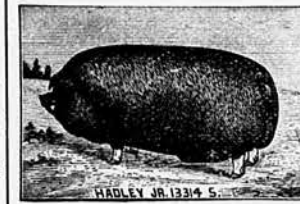
REGISTERED POLAND-CHINA SWINE

King Perfection 4th 15744 S. at head of herd, assisted by Tecumseh Wilkes 12694 S. and Laubing Ideal 14660 S. The sire of last named is Guy C. by Black U. S. We have for sale an extra fine male of June, 1896, sired by him. We have added several very finely bred sows to our herd. Write for particulars. Address either  
W. E. JOHNSON, E. A. BRICKER,  
Colony, Kas. Westphalia, Kas.

## HIGHLAND FARM HERD

PEDIGREED POLAND-CHINAS.

Herd headed by Corwin I Know, a son of the noted Chief I Know 11922 S. Corwin I Know won second as a yearling at Iowa State fair in 1897. Weighed 600 pounds at 13 months. Assisted by Hadley U. S., a son of Hadley Jr. 13314 S.; dam by Mosher's Black U. S. 25 Brood Sows—Kiever's Model, Look Me Over, Chief I Know and What's Wanted Jr. breeding. Inspection and correspondence solicited.  
John Bollin, Kickapoo, Leavenworth Co., Kas.



**Kansas City HERD**  
**Poland-Chinas.**  
W. P. GOODE,  
Lenexa, Kas.

## SILVER CREEK HERD

SHORT-HORN CATTLE.

Scotch and catch-topped, with the richly-bred Champion's Best 114671 in service. Also high-class DUROC-JERSEY SWINE. Can ship on Santa Fe, Frisco and Missouri Pacific railroads.  
J. F. STODDER, Burden, Cowley Co., Kas

## ROSE CREEK FARM

JERSEY CATTLE

POLAND-CHINA SWINE

MAMMOTH BRONZE TURKEYS

and Silver Wyandottes are from premium stock. Turkey eggs \$2.50 for 9, Wyandottes \$1.50 for 13. (Farm in Republic Co., Kansas.)  
H. WOODFORD, Mgr., Chester, Neb.

## SUNRISE STOCK FARM.

C. A. STANNARD, Prop., Hope, Kas.

Breeder of

Hereford Cattle and

Large English Berkshire Hogs.

Bulls in service: Kodax of Rockland 40731, who has won more first premiums at leading State fairs in past six years than any other bull in Kansas; Java 64045. Thirty-five yearling heifers and seven bulls 3 to 7 years old for sale.



## Agricultural Matters.

### EXPERIMENTS WITH WHEAT.

The present stiff prices for wheat, together with the favorable condition of the great crop now growing in this State, add interest to every carefully conducted experiment and to every fact developed as to this great crop. Experiments at the Ontario Agricultural College are rather out of our latitude, but many of the results there attained are valuable in Kansas as well as farther north. In reporting experiments for 1897, Prof. C. A. Zavitz, experimentalist of the station, says:

"One hundred and eighty-nine plots have been devoted to winter wheat experiments this season at the Ontario Agricultural College. Owing to the late harvest and the exceedingly wet season no winter wheat bulletin can be issued this year in time to be of much practical service before the period of winter wheat seeding is reached.

"In an experiment with ninety-one varieties of winter wheat, grown under similar conditions in 1897, it is found that the seven varieties which stand highest in yield of grain per acre are the same seven varieties which have given the largest yield of grain per acre among eighty-six varieties grown on the experimental plots for four years in succession. The following list gives the names of these seven varieties with the average yield per acre for four years, and also with the yield per acre for this season:

Varieties.	Average yield 4 years.	Yield 1897.
Dawson's Golden Chaff.....	53.4 bus.	53.5 bus.
Early Red Clawson.....	50.6 "	58.4 "
Egyptian.....	50.2 "	52.3 "
Early Genesee Giant.....	50.1 "	57.0 "
Reliable.....	49.2 "	50.1 "
Golden Drop.....	49.0 "	57.6 "
Imperial Amber.....	48.8 "	56.2 "

"Although the comparative order of the yields of these seven varieties are not the same in 1897 as in the average of four years, still the fact that they gave the largest yields in both cases among all the varieties tested is a very important feature in the experiment.

"Land upon which peas were used as sidefallow, in 1896 produced a crop per acre than similar land upon which rape or buckwheat had been used as a green manure, or which had been worked as a bare summer fallow. This experiment was conducted in duplicate, but for only one year. It is being repeated this season in a similar way.

"Large plump seed sown in the autumn of 1896 produced three and two-thirds bushels per acre more than the small plump seed, six and four-fifths bushels per acre more than shrunken seed, and forty-two and two-thirds bushels per acre more than the seed which had been broken with the machine in threshing. The same number of winter wheat grains were used in the different selections, and the experiment was conducted in duplicate.

"In the average of four years' experiments in cutting two varieties of grain at five different stages of ripening, the results show that the grain cut before maturity does not give as large a yield as that which was allowed to become fully ripened.

"The average results of an experiment conducted for five years in succession in sowing winter wheat at different dates in the autumn, show that the seedlings of September 2 and 3 gave three-fourths of a bushel per acre more than the seedlings of September 7 and 9, and seven and one-half bushels per acre more than the seedlings of September 17 and 20. It is found that it is not usually advisable to sow winter wheat in the vicinity of Guelph later than September 9.

"An experiment in treating seed wheat for the prevention of smut has been conducted for two years with quite satisfactory results. Infected seed wheat not treated for smut produced a crop containing an average of 2,146 smut balls per bushel of grain; while that treated with potassium sulphide produced an average of 109 balls of smut; that treated with copper sulphate, twelve balls of smut; and that treated with hot water, nine balls of smut per bushel of grain. The hot water treatment, which is one of the cheapest and most effectual remedies, consists in immersing the seed wheat for fifteen minutes in hot water at a temperature of 132° F. The water should not go below 130°, and not above 135°. Not only is the hot water treatment very effectual in killing the smut spores, but it frequently improves the productive power of the seed, as shown by the increased yield of grain per acre. Every farmer in smut-infected districts should

treat sufficient seed to insure the harvesting of clean grain for seed next year."

### Subsoiling in Kansas.

A paper by J. M. Kessler, read before the Farmers Club of the Kansas State Agricultural College, April 21, 1898.

While this subject may be old enough to be "laid by," there are still many farmers who do not know whether to try subsoiling or not. It seems hardly necessary to define subsoiling, yet I will say that it is breaking up the lower soil without bringing it to the top or otherwise mixing it with the upper soil. This would, therefore, not include such method as when an ordinary plow is run through the furrow a second time.

There has been an idea in some men's heads from time immemorial that subsoiling is a universal panacea to prevent drought, to make a deeper soil, to let down roots, to prevent washing, and one knows not what all.

Thus men must all try and many fail. It is known that experience is a costly teacher, and every man should try to learn without it—that is, learn from the experience of others. This is just the reason why we have established experiment stations all over this broad land of ours. If farmers would notice more carefully the work of our stations there would not be so much private experimenting. But each man tries for himself, and even the different heads of experiment stations as they succeed each other must convince themselves. The present professor of agriculture at the Kansas State Experiment Station has not held his position long, but he admits that the "subsoil fever" will undoubtedly also strike him in time.

Subsoiling, practically, has been a

subsoil was the same in composition as the upper. As it is, the ordinary man thinks that it is just such land that does not need subsoiling. The reason is, he does not know in what way subsoiling helps. The main object on the bottom land may not be to store moisture, although that is undoubtedly an important factor, but by loosening the soil we also let in air, which is necessary both to plant growth and to dry a wet, cold soil. The air makes the soil warm. Nitrication (decay) will take place much faster in a warm soil. It is, therefore, very probable that subsoiling can be made a success on bottom land in many cases, but I have yet to hear of a single case where subsoiling was a success on upland, especially with a subsoil of gumbo.

### Cow Pea Culture.

Frequent inquiries as to cow peas are well answered in the following from Prof. W. C. Latta, agriculturist of Purdue University Agricultural Experiment Station:

"Owing to the fact that clover is frequently damaged by freezing in winter and by drought in summer, there is some inquiry for another leguminous crop which is not open to these objections. With our present knowledge, no substitute for Indiana can be offered that is equal to the common red or large English clovers, both of which are thoroughly acclimated and flourish throughout the State.

"Notwithstanding this fact, the cow pea has some points of advantage, among which are (1) greater capacity to endure drought, (2) ability to grow on soils too thin to nourish clover, (3) ability to produce a large amount of forage or green manure in a few months of warm

## No More Scrofula

Not a Symptom of the Affliction Since Cured by Hood's.

"When our daughter was two years old she broke out all over her face and head with scrofula sores. Nothing that we did for her seemed to do any good. We became discouraged, but one day saw Hood's Sarsaparilla so highly recommended that we decided to try it. The first bottle helped her, and after taking six bottles her face was smooth and we have not seen any signs of scrofula returning." SILAS VERNOOY, West Park, New York. Get only Hood's because

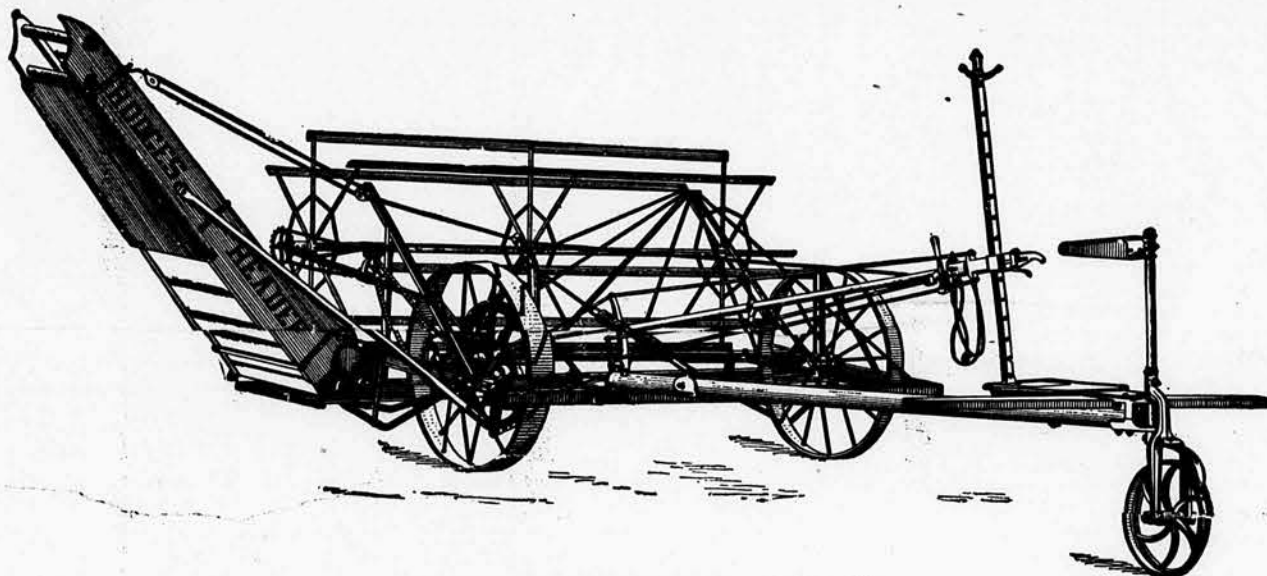
**Hood's Sarsaparilla**

Is the best—in fact the One True Blood Purifier.

**Hood's Pills** cure nausea, indigestion, biliousness, constipation.

preferred for hay. They are also earlier than the 'trailing' varieties, and therefore better suited to this State, if seed is desired. Mr. Jared G. Smith, in the Year Book of the Department of Agriculture for 1896, says: 'Whip-poor-will, Black-eyed, White and Red Crowder ripen in twelve to fourteen weeks, and hence are adapted to cultivation farther north than the very late, but ranker growing, Unknown, Wonderful, Red Ripper, Black and Gourd varieties.' The ordinary force feed wheat drill may be used in sowing the seed."

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complete failure at this station. But can we draw our conclusions from this? Read the reports of others, such, for example, as the report from Scott Kelsey, of Topeka, who so kindly gave us his able and valuable experience in the report of the Kansas State Board of Agriculture for the quarter ending March 31, 1895. In his report he relates the success which he had for a period of several years. Again, this is enough to give some farmers the idea that subsoiling is a success everywhere and at all times, and at once they plunge into it only to come out a little wiser. They do not for a moment consider the difference in conditions that may exist between their gumbo and Mr. Kelsey's bottom land. In fact, they make up their minds that if it pays on bottom land it will pay even better on upland; but they fail simply because they are not observant enough.

In many parts of Kansas the farmer finds (and he does not have to hunt very much) a sticky, tenacious subsoil, commonly known as gumbo. I have reference especially to the upper lands away from rivers. This subsoil is almost impervious to water and can hardly be worked with the plow. Now there are many farmers who insist that if this lower soil could be worked it would be productive. To this end many think a subsoil plow "would be just the thing." Another good effect (in their imagination) would be retaining moisture, etc. Facts, however, show that so far as it has been tried on such soil there has been accomplished nothing. A majority of reports from upland, and especially such as I have described, show that there was no appreciable difference, and even if there should be a slight difference, there was not sufficient advantage to pay for the extra labor. But the place where it has proved a success is on the bottom land. Probably there the

weather, and thus avoid the frosts of winter and early spring.

### COW PEAS FOR FORAGE.

"Cow peas are highly esteemed for forage in many parts of the South. They are pastured, cut green and fed as a soiling crop, and also cured as hay. Where they seed well they furnish an excellent pasture for pigs, in which case the land is left in fine condition for subsequent crops. In this State only the earliest sorts would produce much seed. In the richer soils the tendency would be to run to vines. Cow peas produce a very watery growth, and are, therefore, not easy to cure for hay, although they have the advantage of maturing in the dry season of the year.

### COW PEAS FOR SOIL RENOVATION.

"Both tops and roots are valuable to fertilize the soil. Cow peas have, like clovers, a very beneficial, mellowing effect on soils in which they grow, and when turned under they quickly replenish the store of humus and available nitrogen. It will doubtless be best to turn the crop under before the autumn frosts. If corn is to be grown the following spring, it will be well to sow rye soon after turning under the pea vines, to prevent, alike, washing of soil and dissipation of the nitrogen stored in the vines. Two different years this station has plowed under good crops of cow peas that would not mature seed.

### SOWING OR PLANTING.

"Cow peas may be sown broadcast or in drills. The rate varies greatly. One bushel [per acre], if drilled, would doubtless be ample. The planting should not be done till the ground becomes warm and all danger from frost is past.

### VARIETIES.

"The different varieties vary greatly in size, character of growth and earliness. Some varieties produce a short, stocky, bush-like growth, and these are

### Machinery in the Harvest Field.

It has been said that the man who makes two blades of grass to grow where but one grew before is a public benefactor. So also is the inventor who lightens the toil of the farmer so that he may double the rewards of his labor without extra exertion. A hundred years ago ten or twenty men were employed on the average-sized farm in harvesting the crops. To-day one man with the aid of improved machinery will do more work and better. There are certain requisites which the intelligent farmer demands in his mowing machine. He wants it with high wheels and a broad tread, for these mean light draft. It should be easy to manipulate, durable, and a rapid worker, and it must be practically free from side draft. A perfect mower should include all these features, and probably no machine on the market to-day more nearly meets the demand than the Hodges Hercules Mower, manufactured by the Acme Harvester Co., of Pekin Ill. The cutter-bars vary in size, making a swath four and one-fourth, four and one-half, five or six feet in width.

The hay rake is also a matter of interest in the harvest field. For years there has been active competition among manufacturers to see who could build the cheapest machine. The consequence of such competition is that there are any number of extremely low-priced, flimsy and poorly-constructed rakes offered. On the other hand, there is practically no competition in the building of high-grade rakes. The Hodges "Lassie" Self-dumping Rake has the field to itself. It is a good machine; light, strong, with large gathering capacity; dumps easily and returns quickly to its position. It is constructed entirely of steel, except the shafts, and is built to last. The design



of its manufacturer is not to build the cheapest, but the best rake possible.

Quality more than price has been the guiding principle in the manufacture of the Acme Harvester Co.'s machinery. The price is reasonable, but the quality of goods has never been sacrificed in order that prices might be lowered. The Hodges Chain Drive Header has been built to meet the demands of purchasers who want a machine that is the best of its kind that can be produced. Such machinery is cheaper in the end, for it does not require renewal every time it is used. The wheels on this machine are made so as to be practically indestructible. The frame is formed of angle steel, strongly bolted together, and with corners reinforced by heavy malleable pieces. It is additionally stiffened by a V-shaped truss, which makes it practically rigid. The main drive chain and its tightener are features especially commendable in a header.

The Acme Stacker and the Monarch and Acme Sweep Rakes are of equal superiority with all the foregoing named machines. They are of largest capacity and effective working ability and are essential to the great completeness and effectiveness of the Acme line of farm machinery. Write these people for their splendid illustrated catalogue. Sent free to all inquirers.

## The Stock Interest.

### POSSIBILITIES AND PROBABILITIES OF WESTERN KANSAS.

By C. M. Beeson, Dodge City, at the twenty-seventh annual meeting of Kansas State Board of Agriculture.

Western Kansas is now being utilized for the purposes which nature designed it. It was used for those purposes in a large measure before the white man came, and when the seeker after a new home in the far West first gazed upon its broad plains its short grass that cured naturally upon the ground in the fall, the immense herds of buffalo and numerous antelope that subsisted upon it, and the absence of timber, except upon the banks of streams, should have taught him the lesson he has since learned by bitter experience. Nature designed western Kansas for a grazing country for the growing of herds of grass-eating animals, but the immigrant, fresh from the valleys of Ohio and the plains of Illinois, saw in his imagination a reproduction of the familiar scenes of his old home. He had been raised to plant and plow corn, and sow and harvest wheat, and when he looked upon the green, rolling prairies of western Kansas, in his mind's eye he saw them covered with fields of corn of luxuriant green and waving grain of golden hue; the landscape dotted with orchards and vineyards clustering around substantial homes.

#### GREAT BUFFALO HERDS.

The lessons learned in the school of experience are costly, but they are never forgotten, and afford the surest index of the future. I have lived in western Kansas and eastern Colorado since 1868, and I have noted the changes in conditions and population since then. In the winter of 1870 I was a guide for one of the most distinguished hunting parties that ever hunted upon the Western plains. It consisted of the Grand Duke Alexis, of Russia, Phil Sheridan, General Custer, and other noted men. We started from Kit Carson, Col., and hunted in western Kansas and killed a great number of Buffalo. We killed 100 in a single day; they fairly swarmed over the country; and had any one suggested to that party that in ten years the buffalo would be exterminated and only an occasional one in existence he would have been denounced as a fool, but that was what occurred; and permit an old-time plainsman to suggest that by permitting the extermination of the buffalo the American people submitted to one of the greatest outrages that was ever perpetrated. After the buffalo disappeared a period of stock-raising followed. The country was open. The land was owned by the government, and range was free, and large herds were the rule. The population was thin; only an occasional ranch house disturbed the monotony of the plains. Railroads were few, and in some instances cattle were driven hundreds of miles for shipment. The cattle baron rivaled the old-time Croesus in wealth.

#### PRAIRIE SCHOONERS CAME.

But about 1885 some magician waved a magic wand, and a change came almost in the twinkling of an eye. The plains were dotted with the white sails of the prairie schooner. The granger, of whom the cattle baron and his bootied and spurred retainers (the cowboys) always spoke with derision, was abroad in the

land. In his wake there followed the widow and maid, the young lovers (on adjoining quarters), the town-site boomer, and the office-seeker, all filled with one ambition: to grow up with the country and get rich. The farmer planted and sowed, but the hot blasts from Texas (or that other country which has been likened to Texas) came when the corn was greenest and the wheat in the milk, and in forty-eight hours the prospects for a magnificent crop had disappeared. The fainthearts soon left, and the more determined followed later, and only the men with iron nerve and resolutions were left. They noted that in times of direct distress there were two friends who never deserted them—the cow and the hen. They began to save and economize, and every dollar was invested in young cattle. Alfalfa came as a blessed boon, and the river and creek bottoms were soon covered with its lovely green, and the air became redolent with its sweet perfume. Corn planting was abandoned, and Kaffir corn and sorghum were substituted, and found never-failing crops, and were splendid feed for cattle, supplementing the buffalo grass that has proved the best range grass in the world. Men whose only raiment a few years ago consisted of a pair of "aid pants" and a hopeful smile, who could not pay their personal obligations, can now draw their check for \$500 or \$1,000, and have it honored at its face. The ranchman with alfalfa fields can find ready sale for his hay; and he can get all the cattle he wants without cash, if he has feed. I know farmers who have bought 100 head of cattle without one cent of money, their only capital being a rick of sorghum, a straw pile or two, and a good range covered with the good old buffalo grass that furnishes food all the year round.

#### POSSIBILITIES CHANGE TO CERTAINITIES.

The possibilities of western Kansas have been changed into certainty. It is a first-class grazing country. It is possible and altogether probable that it will have in a short time a greater wealth per capita than eastern Kansas, although not so large a population. Its people will live as well, have better health, and will not be compelled to labor so hard. The dream of the early settler will not be entirely realized. The country will be divided into small ranches of not less than a section each. A good fence will surround each, and a portion of each ranch will be devoted to raising Kaffir corn, sorghum, etc. Windmills will pump water, not alone for stock, but to furnish a pond filled with fish, and to irrigate gardens and fruit trees that will cluster around the happy, independent home of the western Kansas ranchman. The cattle baron, the town-site boomer and the man who would farm in western Kansas have passed into the same obscurity that envelops the Indian and buffalo. From the history of the past, the people of western Kansas have learned that the greatest possibilities lie along the development of the country as a land filled with small ranches.

#### CATTLE.

The country is especially adapted for the raising of cattle; perhaps not adapted for the raising of cattle for the butcher's block, as it is not easy to raise the grain necessary to fatten them; but as a country for the production of feeders it is certainly unsurpassed. It is not necessary that the people of western Kansas confine their energies entirely to the raising of cattle for the market. The dairy products are entitled to consideration, and are receiving it in all portions of this section of the State. The railroads that a few years ago penetrated sections of the country in which the people were too poor to do more than look at the cars as they passed are now each day loaded with cans of butter-fat being taken to the creamery. Men and women who a few years ago did not know what it was to have an extra dollar now each day drive into the little town in which the skimming or separating station is located with cans of milk, and receive in exchange therefor good, hard, legal tender money. The small rancher will not do as the old cattlemen did, turn out their milch cows on the range, but will tend and care for them, and will find the milk and butter a great source of revenue.

#### THE HEN.

The western Kansas ranchman of today has not, and his successor will not, forget the Kansas hen. In the pure air of the western prairies the Kansas hen develops to a surprising and luscious degree, and her eggs are the finest and richest in the land, and a source of revenue to the owner as well as a contribution to the table. Great has been the change in the country and in the towns. Look at Dodge City: a few years ago a

ARMSTRONG & MCKELVEY  
Pittsburgh.  
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ATLANTIC  
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BRADLEY  
New York.  
BROOKLYN  
New York.  
JEWETT  
New York.  
ULSTER  
New York.  
UNION  
New York.  
SOUTHERN  
Chicago.  
SHIPMAN  
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**WE MANUFACTURE White Lead**  
by the "old Dutch process," for the reason that it has stood the test of centuries; and notwithstanding the numerous attempts to make White Lead by some of the many quick or patent processes — although repeatedly tried — they have shown that the "old Dutch" is still the best, and is the "up-to-date" process for manufacturing White Lead.

**FREE** By using National Lead Co.'s Pure White Lead Tinting Colors, any desired shade is readily obtained. Pamphlet giving valuable information and card showing samples of colors free; also folder showing picture of house painted in different designs or various styles or combinations of shades forwarded upon application to those intending to paint.

National Lead Co., 100 William St., New York.

wild and woolly western town; saloons on every corner; gambling houses in full blast; dance halls as common as drug stores in Topeka; a man for breakfast every day except Friday! Now a quiet, peaceable, prosperous town of 3,000 people, good schools, seven churches. The pulpits filled with eloquent divines (a fact learned from constant attendance upon their meetings), and not a saloon in the town (a fact learned from the County Attorney, who has never found any).

#### UNDER FENCE.

In five years every foot of ground west of the 100th meridian in Kansas will be under fence, and the entire country will be one great cattle range. Everybody will be well-to-do and happy, and all the world will have learned that western Kansas is no longer synonymous with busted booms, blasted hopes, poverty and desolation. I am not now booming our country or advertising it. We will always welcome others as our guests, but, like the boy in the strawberry patch, we know when we have a good thing, and we are willing to enjoy it without outside aid.

#### Tuberculosis.

By U. B. McCurdy, V. S., Topeka, before Kansas Improved Stock Breeders' Association.

(Continued from last week.)

#### CATTLE AND CONSUMPTION.

Where cattle are few, or absent, consumption is relatively less in man.

In Norway, Sweden, Lapland and Finland, where reindeer constitute the chief farm stock; about Hudson Bay and the islands of the Pacific, where no cattle exist; and in the Scottish Hebrides, Iceland and Newfoundland, where cattle are few, tuberculosis is less prevalent in man.

In Algiers (a resort for consumptives) the cattle are few and live far apart from the cities, and tuberculosis does not increase among the natives.

In Italy, where the cattle are housed, tuberculosis has become the scourge of man and beast.

In Australia (the great resort for English consumptives) the disease, formerly unknown among cattle, has become exceedingly prevalent, and the same is becoming alarmingly true of our own Minnesota, formerly so lauded as a favorable resort for consumptives.

These are the extreme examples, it is true, in which the transmission and fostering of the disease by the cattle are extended and aggravated by overcrowding and every imaginable unhygienic condition among the human consumers.

The rare cases of foetal organic tuberculosis are explained by direct infection, which is of internal origin (the bacilli may traverse the foetal envelopes; a demonstration of this fact has been given by experiments on guinea pigs and rabbits), or by the presence of bacilli in the sperm or ovum at the time of fecundation.

#### THE WORK BEFORE US.

A careful study of the subject of tuberculosis brings us to a realization of the work before us and the benefit to be reaped by the public, providing the disease among the dairy herds of the country were brought under control.

Stamping out pleuro-pneumonia contagiosa and contagious aptha has cost thousands of dollars, but no human lives. Tuberculosis has cost many thousand lives, and, comparatively speaking, but little money.

The subject of eradication is a most serious one, presenting many points for consideration. We must consider the

rights of the property owner, the rights of the people, the prejudices to overcome, the many uninformed who must be educated to a realization of the danger and the best possible means of avoiding it. The interests of the stock owner must be most seriously considered. No dairyman of ordinary intelligence will object to a thoroughly intelligent examination of his herd.

#### MASSACHUSETTS' WAY.

Massachusetts was one of the first States to have a regular corps of inspectors, and a glance at the cattle will convince one that there is still room for improvement. Of 364 inspectors, 58 are veterinary surgeons, 136 farmers, 10 cattle dealers, 20 M. D.'s, 8 butchers, and the remaining 62 are grocers, painters, provision dealers, wood and coal dealers.

#### TUBERCULIN.

The use of tuberculin in the hands of competent men has given us an almost infallible test. Koch's tuberculin is a glycerine extract of pure culture of tuberculous bacilli, which is inactive when introduced into the digestive system, but whose reaction is considerable when injected subcutaneously or intravenously. Its degree of reaction varies with the condition of the animals, there being none in perfectly healthy ones and very marked in tuberculous ones. It possesses a very marked influence upon tubercular alterations. Under its influence the peri-tubercular tissue becomes inflamed and the seat of an exudation or abundant leucocytic infiltration.

In general, successive injections produce reactions which are, in turn, less violent. The results of the exhaustive experiments by the many scientists who have been laboring with this subject have not been satisfactory from a curative standpoint.

As a diagnostic agent it is indispensable to the advanced veterinarian. With it one can make a positive test on a dairy herd and one which will, on post mortem, prove correct. By this means the boards of health of various cities can control the sale of milk to the dairy having sound cattle. The veterinarian comes in for his share of the responsibility for public health and should not falter in his duty.

#### LEGISLATION NEEDED.

In our State we must have some legislation on the subject of tuberculosis before much can be accomplished. We must have a veterinarian as a member of the State Board of Health and more thorough inspection of the stock of the State. Undoubtedly you can recall some afflicted herd in your locality; no means are taken for the eradication of the disease. What is the result? A dissemination of the disease, productive of tuberculously disposed stock and endangerment of present and future generations of both man and beast.

This is one of the most important questions of the present day, and if by any amount of agitation we can have any influence upon proper legislation, let us bestir ourselves and in time eradicate the worst disease common to man and beast.

It is better to take Hood's Sarsaparilla than to experiment with unknown and untried preparations. We know Hood's Sarsaparilla actually and permanently cures.

Hood's Pills act easily and promptly on the liver and bowels. Cure sick headache.



## WEEKLY WEATHER-CROP BULLETIN.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending May 2, 1898, prepared by T. B. Jennings, Section Director:

## GENERAL CONDITIONS.

A cool week, being cooler in the eastern than western counties. The rains generally occurred the first and last days, with a working interval. Abundant rains in southeast half of State, heaviest from Meade through Leavenworth and Wyandotte to Missouri. Light to fair rains in the northwest half. A general frost first of week.

## RESULTS.

## EASTERN DIVISION.

No damage from frost. Wheat is growing rank, oats greatly improved, and grass doing better. Corn planting is general, though mostly planted in south, where the early is up and being cultivated. Flax sowing largely completed and flax coming up. Apple trees leafing and blooming, with canker worms going to work. Potatoes planted; early planted up. Gardens doing very well.

Allen county.—Little corn planted; flax, oats and clover growing well; alfalfa nearly tall enough to cut; wild grass very slow; potato crop up, stand poor—too wet.

Atchison.—Crops in good condition, but growing slowly, too cool; frost, but no damage; corn planting just fairly begun.

Brown.—Corn planting general; rain sufficient but not excessive; fine prospects for all fruits; cattle going to pasture in good shape; frost on 25th.

Bourbon.—All vegetation growing finely; three-fourths corn planting done; cool for time of year.

Chase.—Growing week except for corn; prospect for wheat and alfalfa excellent;

Lyon.—Grass and alfalfa doing well; corn late, little up; small grains doing finely; apples in blossom.

Marshall.—Much corn planted; oats and wheat growing finely; pastures getting good; light frost, no damage; apples blooming; fruits promise well.

Montgomery.—Good working week; early corn growing nicely and being cultivated; stock doing well; wheat dark green and rank; rye and blue grass heading.

Morris.—Good farming week; corn planting nearly done; grass and small grain fine.

Nemaha.—Fruit, wheat and oats prime; corn planting well under way.

Neosho.—Farmers rushing corn planting; oats coming out all right; flax sowing done and some coming up; garden vegetables and fruit will soon be abundant.

Osage.—Work retarded some by rain; corn not all planted; gardens excellent; pastures fine.

Pottawatomie.—Corn one-half planted; oats doing well, wheat fine; fruit prospect good; trees all in leaf.

Riley.—Corn over half planted, some up; small grains in good condition; trees in leaf and bloom; pastures green.

Shawnee.—Fair growing week, too wet to work; corn largely planted; grass growing rapidly; apple and cherry trees in bloom; canker worm working.

Wilson.—Wheat, oats and alfalfa fine; early potatoes being cultivated; corn coming up; gardens fine.

Woodson.—Corn mostly planted; apples in full bloom; corn up, a good stand; cattle on pasture.

Wyandotte.—Wheat growing rapidly; potatoes generally planted; early planted coming up; but little corn planted yet; apple trees leafed out, timber leafing; gardens growing nicely.

McPherson.—Wheat fine; oats thin and backward, but improving; potatoes and corn coming up, but corn looks yellow—too cool; fruit trees bloomed sparsely; trees leafing out.

Ottawa.—Two frosts, no damage; corn planting general; grass backward but improving and cattle doing well on pasture; wheat doing excellently; cherry trees full bloom; alfalfa fine.

Pawnee.—Pears, cherries, apples in full bloom, everything growing fine; stock on pasture improving; two light frosts.

Phillips.—Wheat, rye, oats and alfalfa doing fine; corn sprouting slowly; cherries and plums in full bloom; fruit fine promise.

Pratt.—Wheat looking fine and a large crop in; corn planting rapidly, nearly all in; oats and barley looking well.

Reno.—Wheat very fine and growing rapidly; listing corn nearly finished, early planting coming up; cherry trees in full bloom; apple prospect poor, trees blooming sparingly; strawberries blossoming.

Republic.—Wheat and oats needing rain; corn planting general; apples, peaches and cherries in bloom.

Rush.—Weather favorable for wheat; too cool for corn, with ice on 26th.

Russell.—Wheat looking fine; corn planting in full blast; apples trees in bloom; nothing suffering, but rain would help.

Saline.—Too cool for oats and corn, but favorable for wheat; apples in blossom; straw worms and Hessian flies working in wheat in central part.

Sedgwick.—Wheat has made rapid growth except in northeast part; corn not all planted, too wet; some listed corn drowned; pastures starting well; potatoes coming up; oats improving.

Stafford.—Oats, barley and corn looking fine; wheat doing well; fruit in full bloom.

Sumner.—Wheat a foot high and growing rapidly; apples in bloom; corn being cultivated.

Washington.—Wheat five inches high and growing well; oats also; corn planting general; too cool; two frosts.

## WESTERN DIVISION.

Too cool and dry for best results. Farming not well begun in the extreme southwest, but is being pushed in the central and northwest. High winds have injured wheat to some extent by covering up some fields and blowing the soil out of others. Barley, oats and spring wheat are doing very well. Range grass is now supporting many cattle, while in the south they are fattening on it. Corn planting is being pushed; in Trego corn was nipped by frost, though generally the frost did but little damage.

Clark.—Very favorable for general crops; grass now good for fattening cattle; ground was getting dry before the last rain.

Cheyenne.—At close of week this county has the finest prospect in six years.

Decatur.—Soil in prime condition; large acreage of corn being planted; winter wheat recovers slowly; spring wheat fine.

Finney.—Growing week; fruits in full bloom; alfalfa making large growth; wheat backward and needs rain; range coming on and many cattle put out.

Ford.—Frost 25th and 26th, no damage; fine growing week; wheat, oats and barley never looked better; prairie grass and alfalfa coming on finely.

Gove.—A few wheat fields spotted by the drought, the rest in good condition; pasture is good; fruits blossoming.

Graham.—Fine week for planting corn, with ground in extra fine condition; frosts damaged fruits.

Grant.—But very little plowing or planting done, too dry; range grass good; slight frost 26th.

Gray.—Wheat not in extra condition, comes out slowly, some spotting; grass on range improving.

Greeley.—Dry week, soil in good condition for listing; corn being listed, also Kaffir and milo maize; grass growing finely; wheat and rye poor.

Hamilton.—Cool week with frost and ice on 26th, no damage; all vegetation growing fast, and stock doing well on range; wheat and fruit were never better.

Kearny.—Plowing and planting going on with soil in fine condition; garden vegetables nearly ready for use; corn is two inches high; grass is green and cattle going on range; wheat doing well, but needs a rain; apple bloom unusually luxuriant.

Logan.—Ice formed on 26th and 28th. Meade.—Recent rains have placed wheat, oats, barley and alfalfa in fine condition.

Morton.—Grass growing, wheat improving; very little rye, oats or barley; no flax; plowing started, but not much planting yet; plums and apples in bloom.



When a man gets down flat on his back, so that he has to be carried about like a baby, he finally realizes that he is a sick man. Very frequently he has been a sick man for years, but has recklessly refused to recognize nature's warnings. Severe illness is something that does not strike a man like a flash of lightning. It creeps upon him by degrees, and at every step warns him with a new danger signal.

When a man feels "out of sorts" or "knocked out," or whatever he may call it, he is a sick man. It is time to take warning. Headaches, drowsiness, loss of sleep at night, loss of appetite, nervousness, bad taste in the mouth in the morning, and frightful dreams—all these are warnings of encroaching illness. Dr. Pierce's Golden Medical Discovery creates appetite, cures dyspepsia, stimulates the liver, purifies the blood, quickens the circulation and tones the nerves. It makes rich, red, tissue-building blood. It builds firm flesh, but does not make corpulent people more corpulent. Unlike cod liver oil, it does not make flabby flesh. On the contrary, it tears down and excretes the unhealthy tissues that constitute corpulence, and replaces them with the firm, muscular tissues of good health. It cures 98 per cent. of all cases of consumption. All bronchial, throat and kindred ailments, as lingering coughs, spitting of blood and weak lungs are cured by it. Thousands have testified to its merits. At all medicine stores.

It is a dealer's business to give you what you ask for; not to tell you what you want.

Dr. Pierce's Pleasant Pellets cure constipation. Constipation is the cause of many diseases. Cure the cause and you cure the disease. One "Pellet" is a gentle laxative, and two a mild cathartic. Druggists sell them, and nothing is "just as good."

Ness.—Wheat and rye growing steadily; where wheat was blown out ground being seeded to barley and oats; rain would improve plowing; barley looks well; peaches not injured so badly as supposed; grass growing finely; gardens coming up nicely.

Scott.—All crops very backward, owing to cool weather following an unfavorable spring; a large amount of wheat was winter-killed, and that remaining is weak and sadly in need of warm, damp weather; the high winds are not beneficial.

Sheridan.—In the northern part all crops are doing finely, with splendid growing weather; in the central and southern part 15 per cent. of the wheat has been covered up or blown out by the high winds; corn is one-half planted; ground in excellent condition; frost caught the fruit a little.

Sherman.—Wheat damaged to some extent by winds of 28th and 29th; spring wheat looking fine; cattle in good condition; spring work well advanced.

Thomas.—Windiest week for years, doing great damage to grain; wheat is spotted, early and late fall-sown is all right, intermediate not doing well; spring grain is doing well; corn planting progressing; grass improving some; trees leafing, peach and plum in bloom.

Trego.—Early corn nipped by frost; some corn being listed in wheat fields; barley and oats backward.

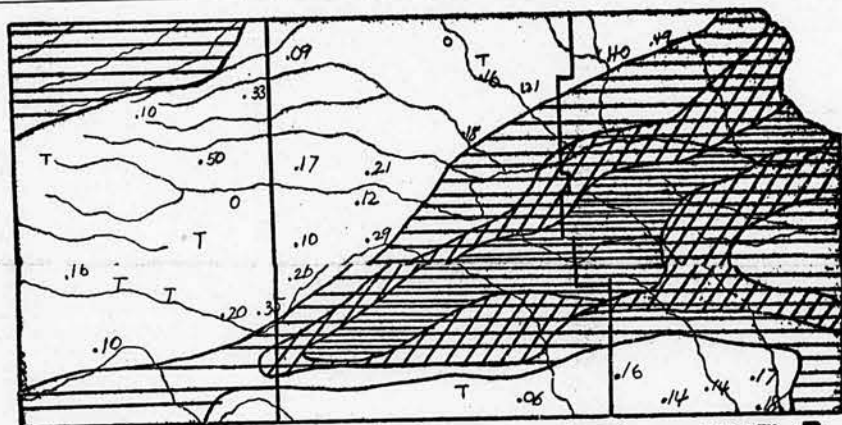
Wallace.—Corn planting well under way, most will be listed; wheat, oats and barley doing very well; alfalfa fine; range grass good; early fruit damaged by frost; gardens coming on apace.

## The Nickel Plate Road

Is authorized to sell tickets to Rochester, N. Y., and return at one fare and one-third for the round trip, on certificate plan, account of Baptist anniversaries, May 16-24, 1898. Three through express trains leaving Chicago daily from the Van Buren street passenger station. Fast time and first-class equipment. Rates always the lowest. Call on or address J. Y. Calahan, general agent, 111 Adams St., Chicago, Ill.

## Among the Ozarks,

The Land of Big Red Apples, is an attractive and interesting book, with views of south Missouri scenery. It pertains to fruit raising in that great fruit belt of America, the southern slope of the Ozarks, and is of interest to fruit growers and to every farmer and homeseeker looking for a farm and a home. Mailed free. Address J. E. Lockwood, Kansas City, Mo.



Scale less  
in inches

ACTUAL RAINFALL FOR WEEK ENDING APRIL 30, 1898.

grass getting good start; corn planting well along; plowing for Kaffir corn begun; apples blooming; cherries nearly done.

Chautauqua.—All crops improved, but too cool except for wheat; early-planted corn being cultivated, stand good; wheat prospect fine.

Cherokee.—Good week for wheat, oats and grass, too cool for corn; fruit prospects good except strawberries; ground in fine condition, with corn nearly all planted.

Coffey.—Splendid week for farm work; flax mostly sown, some up; corn mostly planted except in east part; cattle now on pasture; no harm from frost; apples not in full bloom yet.

Douglas.—Wet; much plowing and corn planting on rolling land; wheat is fine; grass doing fairly well; prospects for all fruits good.

Elk.—Frost, no damage; corn coming up well, some being cultivated; stock on the range; good prospects for fruit.

Franklin.—Too wet for work, rendering plowing and corn planting slow work.

Greenwood.—Apples blooming two weeks later than normal; grass rather short, stock all turned out; wheat looks very well but some think too rank; gardens fine.

Jefferson.—Corn planting just begun; cool and wet, delaying farming; grass very slow; small grains doing well; all fruits in fine condition.

Johnson.—Very little corn planted; wheat, oats and grass fine; frost on 26th, no damage.

Labette.—Bulk of the corn planted and is coming up nicely; wheat doing well but is thin on the ground; oats only fair; grass fine; gardens fair; cherry and apple prospect good.

Leavenworth.—Favorable week for farming; much corn planted; prospects good for peach, pear and apples; strawberries beginning to bloom; grass backward.

## MIDDLE DIVISION.

Wheat growing rapidly; is a foot high in Sumner and five inches in Washington. Grass and oats improving. Corn planting general, with corn coming up in south-central and being cultivated in southern counties. Barley and rye doing well. Potatoes showing up in southern and central counties. Apples blooming and timber trees leafing.

Barber.—Wheat, oats and rye doing finely; much corn being planted; plowing for cane and Kaffir; cattle doing well on pasture; apples in bloom.

Barton.—Frost on 25th, ice on 26th, potatoes and some garden truck frozen; wheat in splendid condition; oats up and covering the ground; apples commencing to blossom.

Butler.—Corn mostly planted, some up in southern part; stock doing well on grass in south part; grass still backward in north, where heavy rains wash corn and alfalfa fields badly.

Cloud.—Pastures in good condition; two light frosts first of week.

Cowley.—Wheat and late-sown oats doing well; corn coming up slow and uneven in northwest part; apple trees in bloom.

Dickinson.—Corn planting well advanced, early planted coming up; wheat in best of condition; cool for oats.

Edwards.—Wheat, oats and rye growing finely, though damaged by winds near Kinsley; corn planting nearly done; some early corn and potatoes coming up; cherries, apples and pears in bloom.

Ellis.—Weather favorable for growing crops.

Harper.—All crops in fine condition; fruit prospects fair; grass up in fine shape and pasturing begun.

Harvey.—Favorable for crops; grass ready for pasture.

Kingman.—All vegetation growing fast.

Marion.—Some corn up but looks bad, too cool and wet; excellent for wheat, oats and grass.



## The Apiary.

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

### Spring Notes for the Apiary.

The greatest hindrance to large honey crops is letting the bees run short of stores in spring.

When the brood chamber becomes so full of bees that they are somewhat crowded for room, additional space should be added.

We cannot look for much surplus honey if we allow the bees to swarm at will, because excessive swarming will be the rule with them.

A colony that is slow in building up now may have a defective queen, or they may have none at all. An examination will usually disclose the trouble.

Cross, stinging bees are usually produced by improper handling. Rough treatment will not succeed, but will irritate the bees almost beyond redemption. In handling, do not kill a bee if possible to avoid it.

No one can get along without a bee smoker when working with bees; even the specialist does not think of handling bees without it. The smoker is indispensable, and many fail to perform the work necessary by being without it.

Drones and queens are perfectly harmless, and may be handled as safely as a fly. Queens have stings, but use them only on their kind and in rivalry with other queens. Drones do not have stings and no manner of defense in any way. Drones are the male bees; queens are females.

It is a very erroneous idea that some people have, that bees are always looking around for some one to attack and sting. Bees do not as a rule venture an attack on any one or any thing. They simply defend, when attacked in a vicious manner, and only make a defense of their hive and stores.

Get hives in readiness for the bees when the swarming season comes. No one can afford to wait until they are actually needed to put swarms in. It is impossible to get hives in shape at swarming time. The old method of picking up nail kegs and soap boxes to have bees in is not worth the bother of doing it.

To obtain a crop of honey in a profitable manner, the surplus boxes should all be ready to put on the hives at any time they are needed. Use the one-pound section box in the latest and best crates for holding them on the hives. Prepare foundation comb to use in the boxes, for without it we shall not succeed.

Moth worms are very destructive to empty combs in hives where the bees have died, or combs that have been put away unoccupied by bees. At the approach of warm weather the moth eggs hatch, and in a short time honey-combs become infested with them and will very soon be destroyed by them. Put the combs in tight boxes and fumigate them with burning sulphur. This must be done frequently during the summer if we expect to preserve them. Combs are best preserved in the hive with the bees.

In whatever manner we handle swarms, we should do it in a way to avoid killing any bees if possible, and to keep the swarm all together and allow no part of it to be left outside the hive, except a few bees that may be on the wing at time of hiving. The queen is liable to be in any part of the swarm and may be in a small handful of bees in the vicinity that may have become separated from the principal cluster. To have a swarm right is to have all of the bees, and if the queen is there at all she is likely to be in the hive with the rest of them.

Bees usually gather some honey from fruit blossoms, and this gives them a good start in brood rearing. It frequently occurs that at the end of fruit bloom they have considerable young brood in the combs and but little surplus honey in the hive, and unless honey again comes soon from other sources they are in danger of starving. This should be well looked after, and feeding resorted to at once. Colonies so scant of provisions as this in spring cannot be expected to prove very valuable, and those only that are well supplied can be depended upon.

Hives containing bees should have a thorough cleaning every spring. There is always a lot of surplus propolis plastered over the frames and hive that will be quite a hindrance in manipulating during the summer. There are also burr combs stuck about the frames and around the inside of hive so that it is

almost impossible to get the frames in and out without killing bees or damaging the combs. All this should be removed every spring, and oftener if necessary. It is a good plan to begin with a new hive and lift out the frames and transfer bees and all to the new hive, and then thoroughly clean this hive and go to the next and so on all round the apiary.

Bees sometimes become dissatisfied after being hived and swarm out and leave entirely. This occurred more frequently in early days when the plain box hives were used. These hives did not admit of the equipments and accommodations that the present hives do. It is very common now—and in almost every case it is done with the specialist—that a frame of young brood is given the swarm, and which is taken from some other hive. Empty frames of comb are also furnished when such are on hand, and if not, foundation comb is used instead. This gives the bees a good start at housekeeping and it only requires a week or two for them to fill their hive in a fair honey season when thus equipped. Swarms seldom abscond when thus treated, but in rare cases they do not seem to think that anything is good enough for them, and they will reissue again, preferring to locate in some far-off secluded spot in a hollow tree.

When a swarm is issuing from the hive the bees should not be molested in any manner whatever, but allowed to congregate at their leisure and select a place to suit them to cluster, and no interference with them at all, until they settle, or nearly all settle. It is not best to get excited or to get in a hurry to get them in the hive, but allow them a few minutes to get well settled, and then promptly hive them. A box just large enough to accommodate the swarm, filled with holes to give them plenty of air, may be held directly over and on the bees, and with a little leafy twig or a little smoke used to start them in the swarming box. They may then be carried to the hive, which should be previously arranged for them, and a portion of the bees brushed off at the entrance of the hive and directly in the entrance so that they will find the way without any difficulty. When thus started they will make a grand rush for the inside, and at this moment should be moved of them, and finally all as they proceed to go in. Swarms should not be left any great length of time after clustering, as the next thing in order for them is to get up and leave.

### Gossip About Stock.

Highland Poland-Chinas are reported by their owners, Dietrich & Spaulding, of Richmond, Kas., to be in fine condition. The stuff they now advertise is the best they ever offered since they began breeding. Some of it ought to go into the show ring.

A. E. Staley, Ottawa, Kas., breeder of Chester-White and Poland-China swine, has recovered from his long illness and is once more in the ring for business and will have a fine lot of pigs to offer later in the season. At present he has only a few males and gilts old enough for service, which he wishes to close out at once at very reasonable prices.

J. R. Killough, of Ottawa, Kas., is now well settled with his present breeding establishment of high-class and pure-bred Poland-Chinas and has by far the best lot of breeders he has ever owned, and is to be congratulated for his present showing, which will be hard to beat anywhere. His spring pigs are thrifty and numerous and nicely marked. For present sale he has only a few gilts by Klever's Model and Hadley Jr., a few of which are bred to his fine Tecumseh boar. Mr. Killough will be heard from later with some attractive offerings.

R. S. Cook, Wichita, Kas., writes that the Champion herd is still doing fine. Stock all in healthy condition. The spring crops of pigs have been coming in large numbers and well marked. He has been having splendid success saving them; has all the small hog houses as well as the large ones full to overflowing. He is so crowded for room that he could spare a few real nice-bred gilts, that he had expected to keep, at reasonable figures. He has also a few nice last summer males to spare for spring breeding that have done finely. Also a few extra nice fall gilts (open) that will make fine show sows this fall, 6 months and under 12 class.

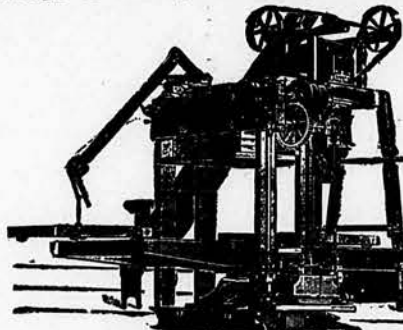
The Crescent herd of Poland-Chinas starts right and is located favorably, its postoffice being written Hutchinson, Kas. The Crescent is up to date. At the head of the herd stands Guy Darkness 18292, a grandson of Guy Wilkes 2d and out of Darkness F. 3d, a World's Fair winner. The Crescent has now ready

for new masters some nice fall boars and gilts sired by Guy Darkness. The first lieutenant in this herd is Best Nims 19612, a yearling son of Best on Earth and out of Mollie Nims. When desired gilts will be held and bred to Best Nims. The Crescent sows have been selected from several of the best herds of this and other States, and though a comparatively "new one," S. W. Hill, proprietor of the Crescent, will be known as a successful breeder.

We believe the season has been favorable for early spring litters. February and March were comparatively warm and breeders generally report "good luck" in saving the little fellows. Mr. H. Woodford, manager of the Rose Creek farm, Chester, Neb., reports ninety spring pigs, most of them farrowed in February—a month earlier than usual. Probably they are better equipped at this establishment for taking care of farrowing sows in bad weather than the average farmer; but this did not save them from serious loss a year ago, when, it will be remembered, losses all over the country were severe. Mr. Woodford says his last fall pigs have done remarkably well and are now big, lusty fellows, pleasing to look at. (We suspect Jersey milk has had something to do with this.) It has been the experience of some swine-growers that fall pigs often become stunted by the cold and damp of winter and do not do as well as spring pigs. At Rose Creek farm they have had a good many farrowed in the fall and consider them better breeders, if not better feeders, than spring pigs. These fall gilts are bred at a year old and make better mothers than spring gilts bred at 8 months old. The males are also more mature and more impressive sires. Mr. Woodford is now offering eight selected fall boars at farmers' prices. They are grandsons of Chief Tecumseh 2d, Woodburn Medium, What's Wanted Jr. and other noted Poland-Chinas. He has a herd of 175 head and culled closely, so that swine breeders can expect to receive choice specimens of the breed if they purchase at Rose Creek farm.

### Cider Presses.

Improvement is the watchword all along the line. The best cider presses now compared with the crude hand-made presses. The Davis-Johnson Company, of 41 West Randolph street, Chicago, is putting on the market a series of hydraulic presses which have many decided advantages over anything heretofore offered. The superiority of the hydraulic system over the screw press is so great as scarcely to need argument. The new system is much more rapid and thorough, for much greater pressure can be applied. The Davis Johnson presses have power applied from below, the advantage of this system being that the



cylinder is set with the open end upward, so that the water which at times leaks out will not run down and mix with the cider. The water can all be drawn from the cylinder, and in cold weather thus avoid freezing. These presses are much easier to load than any other, and will save at least one-third of the time spent at this work by even the best of other makes. The advantages of the hydraulic press are many. It takes less power, less labor, and less time to accomplish the work. It costs less when capacity is considered, and will produce a third to a half greater yield of cider from a given quantity of apples. When the work is done, the platform will drop back into place by gravity for another load. These machines are built for farmers' use. Any one interested in them should send for a circular to the Davis-Johnson Company, 41 West Randolph street, Chicago.

### Paint Talks--V. ROOF PAINTS.

A house may be painted within and without, but if the covering that protects the whole structure be unsound, the work is wasted. From the economic point of view the roof is the most important part of a building.

Wood exposed to the weather will decay and metal will rust, unless artificially protected; therefore, a coating of good

# MICA

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the  
load—  
shortens  
the  
road.

# AXLE GREASE

Makes the wagon pull easier,  
helps the team. Saves wear  
and expense. Sold  
everywhere.

roof paint, which is always cheap enough, is the best investment a man can put into his house or his barn.

With shingle roofs the paint is best applied by dipping, before the shingles are laid, while metal roofs are painted in place. In either case perfect dryness of the material and clear, dry weather are prerequisites to success.

The next most important question is the kind of paint to be used. Lead paints have been strongly advocated for the purpose; but there are two considerations which render them unsuitable for the purpose. First, in the course of disintegration, they may wash off the roof into the drinking water supply and cause serious illness; and, secondly, they do not carry sufficient oil to fit them for such use. White lead, for instance, when thinned for painting carries less than 15 per cent. of its weight of oil, and red lead still less; while certain other pigments carry a much higher proportion, zinc white, for example, requiring about 40 per cent. of oil to reduce it to the proper consistency. A roof paint, exposed to the direct heat of the sun, naturally requires more oil than is necessary in other paints.

Of the two materials, therefore, zinc is more than twice the more valuable for the purpose, and the house-owner in selecting a roof paint based on zinc cannot err. Such paints are plentiful if the buyer will insist on having them.

For a metal roof the same considerations hold good. The metal should be applied thin, allowing plenty of time for drying after each coating. But even an old roof will have its life materially lengthened by a coat or two of good combination paint based on zinc.

STANTON DUDLEY.

As long as a sow will produce and take care of a good litter she is worth keeping.

Send \$1.25 for Kansas Farmer one year and book, "Samantha at Saratoga."

## INSECTS

Will not touch trees treated with VITA-NOVA. One dollar's worth treats twenty-five trees; lasts four years.  
J. WILLIAMS BROS.,  
Danville, Pa.

### LAKE CITY AUTOMATIC HOG WATERER.

PRICE \$3. Sent on trial. To be paid for if found satisfactory. As it costs nothing to try, send for one and test its merits. More pigs die from want of fresh water than from want of food or hog cholera. The Lake City waterers from 50 to 150 hogs daily. Easily attached to tank or barrel. No springs or floats. Now used by all fancy breeders and stock raisers. Agents and dealers wanted in every locality. Agents reordering everywhere. Address  
STOCK FOUNTAIN CO., Lake City, Iowa.  
Send us ten names and we will deduct 50 cents. Please mention this paper.

## OAKLAWN FARM



## 350 Percherons —AND— French Coachers

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### 90 Stallions Old Enough for Service.

Good colors, large size and best of breeding. 18 of them imported in 1896. No man wishing to buy can afford to miss seeing this collection. Oaklawn Farm meets all trains. Separate catalogue for each breed. Say whether Percheron or French Coach is wanted.

Address **M. W. DUNHAM, WAYNE, DUNPAGE CO., ILL.**  
40 Holstein heifers and bulls for sale; heaviest combined milk and butter families of the breed. Prices reasonable.



## The Home Circle.

### HOUSE CLEANING.

Yes, M'rilly's bin house cleaning 'n' I'm sleepin' in the shed,  
With some buggy robes for kivers 'n' the wash bench for a bed;  
There's confusion in the parlor 'n' a heap sight more upstairs,  
While I kain't find comfort nowhere fer the varnish on the chairs.

First they tore up all the carpets; then they pulled down all the shades,  
Till the place looked like a homestead after one of Moseby's raids;  
Next the walls were renervated, 'n' the floors was soaked and scrubbed,  
'N' M'rilly bossed the workers as they pounded, shook and rubbed.

Oh, I tell yer, 'tain't so funny when yer eatin' off the shelf,  
'N' a feller has to hustle for a place to lay his self;  
Fer the wimen folks mean bizness 'n' they make a feller jump  
Till he's like a pesky camel with a double-actin hump.  
—Franklyn W. Lee.

### SANITARY SUPERVISION OF SCHOOLS.

BY HENRY W. ROBY, M. D., TOPEKA.

The human race has been progressing for uncounted ages. But, taking a broad survey of the matter, we are prone to feel that the car of progress has held more to the pace of a glacier than a comet. The glacier is entirely content if it moves a couple of feet seaward in a season, and the majority of the human family seem to hold a close parallel to that paleocrystic gypsy.

From primitive and nomadic conditions we have slowly emerged into clearer lights and better surroundings. One after another the vagrant ages have dropped into our hands and distributed along our pathway the means and inducements to better living.

From caves and fig leaves, we have come to palaces and rustling silks. Out of individual self-defense by fists and clubs against wild beasts and wilder men, we have arrived at national defenses and individual liberty. From bows and arrows and stone tomahawks, we have come to the Maxim gun and the gigantic Krupp. Out of the solitudes of forests and plains, we have come to the rush and roar of commerce. Passing from bark canoes and the outriggers of half-darken the seas with a merchant marine. And the peace of the planet is largely maintained by steel-clad monsters that wallow in all seas and sun themselves on all coasts and make the cliffs echo with their bellowing thunders. We have stepped from the wooden plow and the wooden flail to the steam gang and the header and thresher of the Western plains. From so many apparent holes in the tent cloth, the telescope has come to reveal to us the appalling number and activity of our celestial neighbors. And multiplying the downward range of human vision, the microscope opens the doorway to the microcosm and puts men in relation with a million destinies never before dreamed of in the realm of infinitude.

The dreamer who descended to the cellar of the alchemist, has returned to us the prophet and priest of chemic analysis and synthesis. From the spark that ran down Ben Franklin's kite string has come the light of cities and the thunder of railways. And all the seas are converted into immense whispering galleries across which kings and magistrates utter the mandates of peace or war. The ancient sorcerer has come to be the modern surgeon; and from the shadowy, mythological Hygeia has come through slow development the modern sanitarian. And having arrived in our midst, he is the reigning potentate and arbiter of human destiny I am to discuss briefly before you to-night.

Out of a birthless past,  
Into a kingdom vast,  
This monarch of health at last  
Has pitched on the crowded plains  
Of life, with its wide domains,  
His camp, where it now remains.  
And over the sea and land  
This monarch assumes command,  
And orders his faithful band,  
With the scales and tubes and lamps  
Of science, to clear the camps,  
And harry the rogues and tramps  
And theimps of foul disease,  
Till nothing be left of these  
On the land or on the seas.

Modern civilization is just waking up to its paramount duty. The thing we call the state is but the servant of its master, the man.

For man is master through heavenly grace,  
Of all things prisoned in time and space.

And when the master of a million destinies wakes up and finds his servants derelict or disqualified, then comes the sound of hurrying feet that the master's will be done. The state is just beginning to open its eyes to the fact that "public health is public wealth." Every life saved adds an ingot to the wealth of the world. Every day of sickness that is prevented adds something to the

general fund of national prosperity.

Long years ago the cry went up, "What is man, that thou art mindful of him?" And to-day a new cry goes up, "What is man, that thou darest be unmindful of him?"

Cain asks again, "Am I my brother's keeper?" And after 6,000 years the echoing voice of Omnipotence rings back to him: "Thou art thy brother's keeper, and I will hold thee responsible for his detriment."

In an age where the civic compact assumes the responsibility of caring for the unit, the thing we call government is bound to use extraordinary efforts to preserve the life and health of the individual, for the reason that his life and property are pledged to the support of government. The saving of life is the paramount duty of the world, for life is the most sacred and momentous thing that we have any conception of. Everything else is wrapped up, centered in, and clustered about that. Everything else is nugatory and void without it. The primary object of government is to realize to the utmost this supreme human duty. To that end, it establishes three departments of government—one to concentrate the wisdom of mankind into statutes, one to interpret and explain these statutes when they are questioned, and one to execute them.

We lay great stress on the fact that an American citizen can go anywhere on the planet and be safe as to life and property. Politically that may be true, but from a sanitary standpoint it is very far from the truth. How many of you dare venture into Havana, Matanzas, Vera Cruz or Colon during the yellow fever season? And yet you all believe that proper sanitary government would make life safe against yellow fever even in Havana, and against the plague in Bombay. And the world looks to the medical profession to set the pace that shall bring the state to the ideal condition of sanitary supervision.

Our duty as sanitarians is not to the dead, but to the living and the unborn. We must provide for our own welfare and the welfare of the generations to follow. We have made some advances along right lines. Sanitary regulations dominate our seaports and quarantine stations; and sanitary science sits some-cells, and ought to preside over the school board. But, unfortunately, the public school seems to be the last fortress to yield to the reign of sanitation. That may be because sanitarians are not school teachers and school teachers are not sanitarians. The school teacher is an A B C man or woman, concerned chiefly in crowding so much spelling, so much reading, writing and arithmetic into the mind chambers of the pupils before examination; while the poor victims of this crowding process, in the midst of a whole catalogue of unsanitary conditions, listen calmly and proudly to the reading of their own death warrants on graduation day—only the professor does not call it by that name; he fixes the more euphonious name of diploma to it. But a stunted tree never becomes king of the forest, and a stunted child never becomes king of a realm—except in Spain and a few other foreign countries.

It is the boast of America that she has outdone the world in her fight against the literary ignorance of the masses. Can we boast as much for our fight against sanitary ignorance? When I attended college, we had a president brought from Philadelphia to give us the very latest wrinkles in education. He could make as fine a prayer as I ever listened to; he could read with great unction; he could demonstrate profound problems in the higher mathematics, but he never discovered that

The shortest road from earth to hell  
Starts often from a poisoned well.

One day he invited me to go with him to a neighboring town to get an invoice of new books. On the way we passed a swamp, and the professor, being very thirsty, got out of the buggy and filled himself with bog-water, and in a few days he came near dying with swamp fever. He was a first-class teacher, but a last-class sanitarian.

According to an old proverb—

"The world goes all right  
With its soldiers to fight;  
With its teachers to teach;  
And its preachers to preach;  
With its doctors to bleed,  
While the devil takes care of the victims of all."

The world tried that program some thousands of years and finally found that the sanitarian was missing, and badly needed. So the doctor quit bleeding and set up the sanitary still; set the sterilizer to boiling, the oven to baking, the filter to filtering. He sent the dirty hands to the wash-bowl, and the dirty dressings to the fire. He poured the

# THE POWER THE



# BEHIND BRUSH

What is it—brain or brawn?  
Do you clean by main  
strength or do you use labor  
savers? Do you use the best labor  
saver? If you are undecided which  
is best try

## GOLD DUST Washing Powder

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ozone into stifling chambers, let in the sunlight, and ordered the dead wells and cess-pools closed. He canted the refuse from back yards and alleys; set the hydrants to flushing the streets, and applied the torch to the rubbish heap. He set a watch on the sources of contagion and a bound to the infected. In all these things he did well. But he took it for granted that the man of whom it was said—

"And still they gazed,  
And still the wonder grew,  
That one small head  
Could carry all he knew"—

was entirely safe to be left in charge of the school room. But not so. He was found to be only a teacher of what he had been taught. And when he was called to account for the stifling, noisome air in the school room, or the deadly drafts from winter windows flung up over children's heads, or the roasting one hour and freezing the next, or any one of a hundred other dangers, he excused himself by saying that he made use of all the facilities furnished by the school board. And when the members of the board were assailed for not doing their duty they excused themselves by saying that they could not stand about all the time and watch the teacher. Let him do his duty!

But the day of such frivolous excuses for unsanitary conditions in and about the schools is drawing to a close. It is coming more and more to be the rule of modern times that the occupations of men shall be divided up into specialties. In law we have the criminal lawyer, the real estate lawyer, the commercial lawyer, the admiralty lawyer, the railway lawyer, and the international lawyer. In theology we have pope, cardinal, archbishop, bishop, elder, priest and minister; some assigned to one field of labor and some to another. In medicine we have specialists in surgery and gynecology, in diseases of the eye and ear, nose and throat, heart and lungs, liver and kidneys, the nervous system and insanity, and, last of all, the sanitary scientist. But the sanitarian, although coming late, has come to stay. There are thousands of ways in which he can add to our present agencies for saving life and lessening disease. He may make it possible yet for men to be sent to jail for falling sick. Then what will become of the remainder of our guild?

If we consult our pockets as the bankers and merchants do we must turn the sanitarian out of our midst, and declare Jenner, Lister, Koch, Pettenkofer, and Sternberg cranks and public enemies. But just here I take occasion to assert that there is no calling on earth so truly and magnanimously public-spirited and unselfish as ours. No set of men do so much every day of their lives to undermine and destroy their own source of subsistence. The sanitarian's whole mission is to prevent sickness, the source of his own revenue.

Unless it be in the home there is no place in the world where he is so much needed as in the schools. They are the nurseries of the state, the cradles of government, the proving grounds of all the great physical, intellectual, moral and spiritual giants of the race. In our day and generation the race comes to exaltation through the school. And therefore every phase of school life needs sanitary supervision, to the end that coming generations may be strong and great.

The foundation stones of the school house and the clay banks underneath them need sanitary supervision. The walls, inside and out, every door and window, every entrance and exit, needs sanitary supervision. Every floor and ceiling, every blackboard and platform, every desk and seat in the school room

needs it. Every play-ground, every out-building, and all the neighboring premises need the same supervision. Every scholar, every teacher, every parent and member of the school board needs it. That need is as universal as the need for bread and shelter.

We must not only have sanitary supervision over our schools, but sanitary science must be taught in them. The best way in the world to escape the heavy exactions of the grave-digger, the undertaker and the dealer in mourning goods is to outlive them, and let them die first. And in order to do that we must see to it that sanitary science takes up its permanent abode in the home and the school.

There are children who are born and dwell in the border-land and whom unwholesome living, undue nervous tension and unwarranted excitement may easily sweep across the line into the realm of insanity. But by being properly protected and safeguarded in school and home they may be so preserved in health and vitality as never to lose their footing in the realm of sanity. Such neuroopathic children stand in the utmost need of the highest sanitary and hygienic supervision.

In the thirty minutes allotted to me I cannot go at all into details. I cannot tell you where the school house should be built; how it should be constructed; how lighted, or ventilated or heated; nor how it should be cleaned; nor what kind of seats and desks and blackboards it should have; nor what should be its water supply, or its facilities for waste; nor what should be its general, physical and arboreal surroundings. I cannot tell you how its inmates should be clad and fed, worked and rested. Each of these topics demand one or more lectures to make their merits clear.

Shakespeare long ago cited us an example of "How use doth breed a habit in a man." And the habit-breeding epoch in life is most potent during school age. Here the trend of life should be fixed and its pathway made safe and long. The medical profession, without asking it, has received the unwritten commission of mankind to act as the sanitary guardians of the world. And our supreme obligation is to save and prolong life to the uttermost.

In the first twenty-five years after the health department was established in the city of New York the mortality was reduced from 35 to 21 per 1,000 inhabitants, and 80,000 lives were thus saved. And, as it seems necessary in modern times to reduce all loss or gain to a money basis, we shall find by taking \$5,000 as the average judicial finding of the value of a life, that New York in those twenty-five years saved \$400,000,000 by improving her sanitary conditions. British authorities estimate that in the same quarter of a century the improved sanitary conditions of the kingdom saved England 1,000,000 lives, worth \$770,000,000 according to the British standard of life value, or \$5,000,000,000 according to our standard.

As a nation we boast of our life-saving stations. But the well-conducted sanitary station is the overtowering and most colossal life-saving station among men. And real sanitation is just commencing, just creeping out of the shadows into the dawn, and just beginning to list a few simple notes in the grand anthem of physical regeneration of the race. Let us set that anthem ringing in the public schools, through whose doors the tramp of marching generations shall be heard to the end of time. The school and the home are the two grand sanitary stations of the land, and there the life-saving crews must work and win their victories. There the properly-equipped medical man shall be the High Priest



of Hygeia. And longevity with unwhitened hairs and untottering steps, with its clear eyes and ringing voice, shall join in the grand anthem of a race rejuvenated and brought back to the span of a thousand years.

### The Home Kitchen.

Where is the household throne-room? Where reigns the household queen supreme?

The kitchen! This room is the grand center around which the household fairies dance. To all appearance, from the kitchen comes forth the potent spell that marks the day with good nature or peevishness. There is brewed that wondrous draught that goes straight to a man's heart.

What, then, should be the condition of this household laboratory? Perfect in every detail.

It has been said that the finest cooking is done in the most untidy kitchen.

This is probably an exaggeration, but let it go for what it is worth; there are extremes to everything. From choice most people prefer cooking done in a clean kitchen in a cleanly way.

Old farm houses are likely to have in them one large room, which serves as both dining-room and kitchen. If possible this should be altered. Either partition a kitchen from the large room or have a new kitchen built. Here the "house mother" spends the greater part of her time. On her shoulders rest the heaviest burdens, the greatest responsibilities. This is her throne-room. Surely she is worth the best jewels for this room that circumstances will permit. First, the walls of the room must receive attention. Several coats of paint of a cheerful neutral tint make the best finish for walls and ceilings. It will last a long time and is easily cleaned. The floor should by all means be hardwood. It should be kept well oiled. Simply wipe up with a cloth and clean water.

For the windows cheesecloth makes nice cheap curtains; have two sets and they may be easily changed each week, with little work to laundry.

Drapery in the kitchen absorbs a mixture of smells, which become very offensive. So, whatever curtains are used should be washable.

Have, by all means, a good easy chair in the kitchen. By the side of your chair have a good household paper lying handy. You will find many spare minutes in which you can rest body and mind while in the kitchen.—Farmers' Review.

A series of articles by Mr. Henry James is being published in Literature, the first article appearing in the number dated April 6th. The subject of this series is "American Literature"—a fortunate selection for the writer, it would seem, and for the readers of this authoritative journal. "Mr. James has devoted him-



HENRY JAMES

self so patiently and so successfully to the 'pious illumination of the missal,' the editor of Literature observes, "that it would be both needless and impertinent to attempt a more formal introduction; and we are sure that all who value nicety of phrase and fineness of perception will look forward to his impressions of the art of letters in America."

### The Nickel Plate Road

Is authorized to sell tickets to Cleveland and return at one fare and one-third for the round trip, on certificate plan, account of meeting of Women's General Missionary Society of the United Presbyterian Church of North America, May 10-13. Tickets will be good on any of our through express trains, leaving Chicago from the Van Buren street passenger station at 10:35 a. m., 2:55 p. m. and 10:15 p. m. First-class equipment. Day coaches in charge of colored porters. Rates always the lowest. Call on or address J. Y. Crahan, general agent, 111 Adams St., Chicago, Ill.

## The Young Folks.

### SETTLING THE QUESTION.

However the battle is ended,  
Though proudly the victor comes  
With fluttering flags and prancing nags  
And echoing roll of drums;  
Still, truth proclaims this motto  
In letters of living light—  
No question is ever settled  
Until it is settled right.

Though the heel of the strong oppressor  
May grind the weak in the dust,  
And the voices of fame with one acclaim  
May call him great and just;  
Let those who applaud take warning,  
And keep this motto in sight—  
No question is ever settled  
Until it is settled right.

Let those who have failed take courage;  
Tho' the enemy seems to have won;  
Tho' his ranks are strong, if he be in the wrong,  
The battle is not yet done;  
For, sure as the morning follows  
The darkest hour of night,  
No question is ever settled  
Until it is settled right.

O man, bowed down with labor;  
O woman, young yet old;  
O heart oppressed in the toiler's breast,  
And crushed by the power of gold;  
Keep on with your weary battle  
Against triumphant might;  
No question is ever settled  
Until it is settled right.

—Ella Wheeler Wilcox.

Written for Kansas Farmer.

### YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 23.

#### KLADDERADATSCH.

In an old law book there is an ordinance which it is not always safe to disregard. The book referred to is commonly called the Bible.

In I Peter ii, 17, we read: "Fear God. Honour the King." Now, to speak disrespectfully of the King, or of his father, or his grandfather, or even of his great, great, great grand-uncle, would not be honoring the King to any alarming extent, and if any one should do so he would violate the law referred to and quite likely incur the trouble mentioned in Proverbs xx, 2.

In Berlin there is published a comic pictorial newspaper which bears about the same relation to German politics and German people as do the publications Judge and Puck to Americans; it is called "Kladderadatsch." The principal owner and responsible man of Kladderadatsch is Herr Trojan, who is known in Germany as "Klad," and the courts have recently decided that he has violated the law laid down in I Peter ii, 17, by publishing a picture disrespectful toward the great, great, great grand-uncle of the King, and they have sentenced Herr Trojan to two months' imprisonment for this great crime.

Just imagine an American in America being punished by law for saying anything saucy about President McKinley's relative so far removed as that! We might stand it if it were said about his father or grandfather, or even his great uncle; but his great, great, great, grand-uncle! Never!

I will try to tell how it all happened. It was told me by Herr Trojan himself, but I fear I cannot repeat it all as he told it.

How did I happen to get acquainted with the gentleman? Why, that would take too much space to tell it; but myself, my mother and sister had a pleasant call at Herr Trojan's beautiful home, and enjoyed a long chat with him, his wife, his daughter and his grandchild. Being on the lookout for an "item," I monopolized the old gentleman's conversation, and he recounted to me his legal troubles, which he laughed over, showing that he had not worried much about it.

He showed me a picture that had been printed in Kladderadatsch last November 28; but that picture is not supposed to be in Berlin at all, so do not mention it to any of Emperor William's folks. Before the edition was fully printed the officers of the law came and confiscated, as they thought, the whole of it; but many thousands of copies first printed had already gone to England, France, America and elsewhere, so the copies destroyed by the police were only those which would have been circulated in Germany.

It seems that Emperor William II. in addressing his soldiers made use of the following sentiment: "Who is not a Christian can be no brave man and can perform no duty of a brave Prussian soldier which is in any way desired in the Prussian army by a Prussian soldier."

It is pretty generally understood by readers of German history that Frederick the Great was not a Christian, although it has always been considered that he was a brave man; Voltaire's

opinions of an un-Christian nature were largely adopted by the King.

Kladderadatsch wished to illustrate the force of the Emperor's remarks, so it printed the picture above referred to, representing His Satanic Majesty, commonly called Satan, or devil, for short, standing prominently in the foreground. The last-named individual is in a reflecting mood and stands with his tail reclining over his right arm, and in his tail he has tied a knot before leaving his warm fireside, which was to remind him of some errand he had to perform that morning, just as a lady would tie a knot in her handkerchief to remind her to get a spool of thread at Siegel & Cooper's while she is "down town." He is pointing with his left forefinger at the knot, and is represented as saying to himself: "Now, what did I tie that knot for? Oh, I know. It was for me to go and fetch the 'Alter Fritz' from the heavenly army and take him down to my abode in hades, for he was no Christian, and therefore was no brave man, etc."

The picture represents Napoleon, Alexander the Great and Leonidas in the background reading the Berlin Zeitung in which Emperor William's speech was printed. These three un-Christian conquerors have their robes of their times and armor on, and each one is ornamented with a cute pair of dark goose feather wings to indicate their angelic condition. They are supposed to be remarking to each other something about there being no dipterous insects on their record for bravery.

Above these in the heavenly clouds is Frederick the Great in the uniform which his pictures always show—his three-cornered hat, his walking stick and high-top boots appearing prominently. The golden star of royalty shines on his breast and he is fitted out, also, with a fair set of wings. He, also, is reading the newspaper, and seems to say to himself: "That was not considerate for my great, great, great, grand-nephew to 'roast' me like that."

Above Frederick are a host of little angels clothed in ministerial garments with white stocks around their necks. These were to represent the ministers who used to preach to Frederick and who tried to convert him. They are scolding him, and saying: "We told you so." In the upper left hand corner is represented Voltaire as a feathered angel and he is smirking at the King and apparently remarking: "So you got it at last, Fred."

Now, all this is not a very good picture, any way, and no doubt Judge or Puck could make a much more funny one, but it raised the wrath of the King and he was "provoked to anger" and he proceeded to demonstrate that "Klad" had "sinned against his soul."

Herr Trojan was indicted for the offense, and after a trial in Berlin he was found guilty and sentenced to two months' imprisonment. He appealed his case to the highest court and the appeal was heard at Leipzig in March and the judgment of the lower court was affirmed.

On April 6, when we visited Herr Trojan, he was "out on bond," as the place where he was to be imprisoned had not been designated. He told me he had written to the Judge to name Danzig by the Baltic sea as the place, as that was where he was born.

Herr Trojan is a pleasant old man over 60 years of age, his hair is white, his beard is auburn, streaked with gray. He is one of Prince Bismarck's friends and he told me he has often dined with the Prince at "Freidrichsrub." In the editor's library is a statue of Bismarck with his dogs lying at his feet.

While speaking with Herr Trojan I told him that he did not seem very "traurig" (sorrowful) over his prospective punishment. He laughed heartily and said: "This will be my summer vacation, and I will write for Kladderadatsch and keep up my correspondence. I am pretty old and need a good rest. I have good courage, and then nobody can disturb me." I might have thought that this was a hint that I was bothering him, but he was so cordial in his conversation I know it was not so intended. He told me he had received "thousands and thousands" of telegrams, letters and cards, expressing sympathy. He then showed me a copy of Kladderadatsch printed recently which contained a picture representing "Klad" as a little boy sitting on the knee of Frederick the Great and Satan standing near, holding his tail without the knot; and he is represented as saying: "Oh, yes, now I know why I had that knot in; it was to remind me to fetch 'Klad.'" In the distance is a patrol wagon coming to take him to prison.

My interview had all been in German, but as I left Herr Trojan spoke a little English. He said: "Oh, yes, I read

## PILES

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English, indeed; but mit speaching him, dat is hart."

### Cave Dwellers of Alaska.

A race of cave dwellers live on a small island off the Alaskan coast. It is King's island, in Behring sea, due south of Cape Prince of Wales. There is only one village there, and this has a population of 200. Dr. Sheldon Jackson, the United States agent of education in Alaska, says that it is one of the most remarkable settlements in America, yet few people know of its existence.

King's island is about a mile in length, and is a mass of basalt rock which rises perpendicularly out of the sea to a height of from 700 to 1,000 feet. At the south side this is cleft in two by a deep ravine which is filled by a huge permanent snow bank. High up on the west side of the ravine is the village of Ouk-ivak, which consists of about forty dwellings, partly hollowed out of the cliff and built up outside with stone walls. Across the top of these walls are laid large drift-wood poles, over these are placed hides, and over the hides, grass and dirt. The houses are entered by a tunnel which distance often or fifteen feet, and ends under a hole—eighteen inches in diameter—in the floor of the room above. This is the front door of the establishment. The tunnel is so low that it is necessary to stoop, and often crawl, the entire length of it.

In summer these houses generally become too damp to live in. The people then erect another dwelling on top; this is a tent of walrus hide which is stretched over a wooden frame and guyed to the rocks by ropes to prevent its being blown off into the sea. These tents allow of a room about ten or fifteen feet square, and entered by means of an oval hole in the hide about two feet above the floor. A narrow platform two feet wide runs along outside of the door and leads back to the hill. These platforms are often fifteen or twenty feet above the winter dwelling below.

At the other side of the deep ravine, at the base of the cliff, is a huge cavern into which the sea dashes. At the back of this is a large bank of perpetual snow. The cave dwellers use this as a storehouse. They dig rooms in the snow and store their provisions, which freeze solid and keep the year round, for the temperature in their lair never rises above 32 degrees.

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The value of brains compared with brawn is well illustrated in a paper in the *Country Gentleman* wherein it is shown that on a farm from which \$13,449 worth of products were sold in one year, the wages paid for labor was \$1,680 and the salary of the manager was \$2,000.

Readers of the *Kansas Farmer* will be pleased as well as profited by reading in this issue the letter from C. Wood Davis, which we have headed "Forecasts Realized." Mr. Davis has shown in figures what other thoughtful people have realized only in a general way as to bread supplies and demands. Perhaps a few candid investigators may attribute to the war more influence than Mr. Davis allows it in making the present high price for wheat, but aside from this there can be little candid questioning of his conclusions.

State Agricultural College, was recently changed from a weekly college newspaper to a monthly magazine for the promotion of agricultural, industrial and civic education. The college printing office encountered the mechanical difficulties usually met when a newspaper office undertakes magazine work. The last number of the *Industrialist*, while not as mechanically perfect as could be desired, is in this respect a vast improvement over its predecessors. In the quality of the papers printed in the magazine there is great excellence. The writers are persons of ability, many of them conducting original investigations in fields of their special labors and in which they are coming to be recognized authorities. The contributions on results of physical, mechanical and biological subjects are made brief, and are divested of the technical details which make more elaborate discussions of these subjects tiresome to the average reader. The more technical treatment of the subjects is reserved for the official bulletins of the experiment station, while the conclusions, together with enough discussion to indicate that they are well founded, are presented in the magazine. The range of subjects is very great, so that there is variety enough to prevent weariness on the part of the reader.

## War Prices.

There is considerable discussion among business men at present as to the effect of the war on prices of the different commodities, and the younger generation of traders have little idea of the high prices which prevailed during the Civil war. The following wholesale prices prevalent in the Chicago market during the early part of November, 1864, and while not representing the extreme prices reached for some articles, they were the current prices when all were on about an even footing: Gold, 238@247½; flour freight to New York, \$1.60 per barrel; grain, do., 80c per cwt.; lake freights to Buffalo, 10@12c per bushel; flour, per barrel, \$8.50 @12.75; wheat, per bushel, \$1.70@2; corn, per bushel, \$1.30@1.34; oats, per bushel, 64@66c; rye, per bushel, \$1.10@1.13; barley, per bushel, \$1.45@1.60; beans, per bushel, \$1.90@2.10; corn meal, per ton, \$45@50; bran, per ton, \$20@21; middlings, per ton, \$35@40; timothy hay, per ton, \$22@24; prairie hay, per ton, \$14@15; broomcorn, per ton, \$190@250; potatoes, per bushel, 95c@1; flaxseed, per bushel, \$2.10@2.30; timothy seed, per bushel, \$3.75@4; clover seed, per bushel, \$6@10; live hogs, \$9.25@11.50; cattle,

\$3.25@6.75; sheep, \$6@7; pork, per barrel, \$34@39; lard, per pound, 21@22c; green hams, per pound, 15½@16½c; pickled hams, per pound, 17@18c; pickled shoulders, per pound, 15@16c; butter, per pound, 35@45c; cheese, per pound, 22@25c; eggs, per dozen, 26@28c; sugar, per pound, 24@29c; coffee, per pound, 45@57c; wool, per pound, 85@90c; tallow, per pound, 15½@16c; dried apples, per pound, 11½@12½c; dried peaches, per pound, 20@25c; brown sheetings, per yard, 45@56c; bleached sheetings, per yard, 50@62½c; soft coal, per ton, \$9@10; hard coal, per ton, \$18@20; wood, per cord, \$10@14; pork barrels, \$1.90@2; lard tierces, \$2.15@2.25; high wines, per gallon, \$1.64@1.65.—Chicago Trade Bulletin.

## THE EVENT OF WAR.

The civilized world has been pretty busy during the last two weeks getting a realization of the fact that the big, good-natured, peace-loving nation of North America has really gone to war. Harder still is it for people in other lands to comprehend the fact that it is not a war of conquest or of plunder, but that it is undertaken in obedience to an impulse inspired by sympathy for oppressed people—our near neighbors—who have valiantly and persistently fought and are still fighting for liberty from a cruel oppressor.

One of the first surprises we served upon the observers was when unanimously, through our representatives in Congress and the Senate, we placed in the hands of one of our number, who is temporarily occupying the position of chief executive, the more than princely sum of \$50,000,000 to be expended according to his will in the national defense. We required no bond of this citizen executive and we knew as well before as after the expenditure of this vast sum that it would be invested to the last cent for the purposes for which given.

It is realized in all the world that the expense of the war upon which we have entered must be great and that at the outcome Spain cannot indemnify us for this expense. We send our young men to a climate peculiarly subject to at least one dread disease in addition to those usually incident to the camp and the march. But without constraint and money, and our regiments are filled beyond the limits by those anxious—not for easy places, but to get speedily to the front and into the fray.

Almost as one man the people demand of Spain the liberation of Cuba. When that shall have been accomplished the world will be treated to another surprise at the alacrity with which the soldier will again become the citizen, glad to take up again the labors he laid down to fight in the cause of humanity.

But war, even though waged for the most exalted purpose, is not all glory. For the most part it is weary waiting, the dread monotony of camp, the tiresome army ration, the deprivation of society and home. Then there are the hard marches, weary bodies laid often upon hard or the wet ground to rest and to sleep. When battle comes there is the falling of comrades, suffering and death.

Only a small percentage, however, of the 74,000,000 people of the United States can engage directly in the war. The first call is for 125,000 volunteers. The effect of the war on the millions who remain at home and on the industries and institutions of the country is of greater importance in the aggregate than any of the foregoing considerations.

The supreme confidence in the stability of our government, so universal among the people, is strikingly indorsed by the confidence of the financial world in our bonds. While those of our adversary were, at last accounts, quoted at something above 30 cents on the dollar, bonds of the United States bearing the same rate of interest were quoted at \$1.19½. The belief seems to be well founded that should further issues be made in this country, bonds bearing 3 per cent. will be promptly taken at par or above.

Industries are variously affected. In the East some manufactories—as of pianos—have shut down. There is a disposition on the part of owners of money to hold it in readiness to invest in government bonds should they be issued. This has an effect to curtail industries and to prevent new enterprises. But the demands for food supplies are in no wise abated. On the contrary, they are greatly increased by the consumption and waste of war. The hoarding of money has temporarily had a depressing effect on cattle purchases with borrowed money and may have caused undue numbers to be rushed upon the markets. But in the near future the demands for food must produce a reaction in an upward direction.

The increased price of foodstuffs must

produce a dual effect in the wheat, corn and meat-producing central West. First, the remunerative prices will be felt in the farmer's return for his products. Second, the stagnation in some other quarters contrasted with the prosperity on farms is likely to accelerate the already manifest disposition to seek the soil. There is little apprehension of damage to our coasts from hostile fleets, but that little readily adds itself to other influences favorable to the central regions. Strong demands and good prices for staple food products are to be expected and corresponding activity in the development of the resources and opportunities of the West. Farmers, merchants, manufacturers and all others who contribute to the good of society need chiefly to be concerned as to the amount produced. This will be the gauge of their prosperity.

## FORECASTS REALIZED.

Editor *Kansas Farmer*:—Eight months ago, in a memorandum prepared for the *Kansas Farmer*, I stated that the wheat available for consumption during the 1897-98 harvest year appeared to be some 400,000,000 bushels less than a year earlier, and was taken to task for making what was termed an estimate far away from those made by recognized authorities. It is not very difficult now to show that the crop of 1897 was at least 210,000,000 bushels below that of 1896, and that "remainders" from former harvests decreased anywhere from 150,000,000 to 200,000,000 bushels during the 1896-97 harvest year, leaving, probably, the smallest "remainder" since 1880 to be carried into the harvest year now drawing to a close. The result is that while supplies for the harvest year may not have been just 400,000,000 bushels less than in the preceding year, they have been enough less to promise the entire absorption of all stocks weeks before the crop of 1898 can be generally placed in consumers' hands.

Ordinarily the bread-eating world finds little new wheat available for consumption until September. It is true that in the more southerly districts wheat is harvested in June and July, but rarely does it get to the consumer, even in such districts, till about August, and in more northerly districts not until September or October; therefore we may say the harvest year, so far as consumption is concerned, begins with September. It is possible, but hardly probable, that any considerable quantity of American wheat will get to the European consumer, no matter how far south grown, before September. This being the situation, the world must still subsist for about four months on the wheat already harvested, and the course of prices for the rest of the harvest year, and the earlier part of the 1898-99 harvest year as well, depends upon the amount of wheat still in producers' hands, as it is well known that in Europe stocks, both in growers' and dealers' hands, is smaller than at any time within thirty years, and this, and not the Spanish war, accounts for the recent phenomenal advance; an advance that I have anticipated and indicated in the *Farmer* as due at this time, as long ago as last September. It is true that wheat differs from cotton, as the consumer may wear last year's garment while he can't eat even yesterday's dinner; but if war was the price-making factor, it would affect the price of cotton in nearly as great a measure as wheat, as it did much more than the price of wheat when the Civil war cut off cotton supplies. But while solicitude has been felt and expressed in relation to the suspension of exports resulting from existing hostilities, such solicitude is warranted but in small measure, as Europe must have our wheat, and can readily get it through such Canadian ports as Montreal and St. Johns, New Brunswick, and in European ships, with John Bull and confederates paying the added freight. Of course, this might injuriously affect the earnings of some American transportation companies and largely increase the earnings of others as well as those of Canada, but the wheat would go abroad, and the farmer possibly get more for it than if peace reigned.

If it is a fact—and of this there is no room for doubt—that the world harvest of 1897 was some 210,000,000 bushels less than that of 1896, and available "remainders" from former harvests had to be drawn upon last year for at least 150,000,000 bushels, then present supplies will be absorbed long before the new crop can be available unless "remainders" at the beginning of the 1897-98 harvest year were vastly greater than any one has estimated. The probabilities are that they did not exceed 180,000,000 bushels and that they will have disappeared long before September 1, 1898; in which case the new crop must cover about thirteen months, and no matter how large

it may be, will not meet the requirements of a harvest year of thirteen months. That is to say, there is little probability of low prices except during the latter fall months when farmers are delivering more wheat than required for immediate consumption. If prices should decline when farm deliveries are at the maximum they are very likely to advance again as soon as deliveries fall off. In other words, the condition is such as to indicate continued remunerative prices, with more than a possibility that before September, 1899, they will be very high.

These conclusions are based upon the well-ascertained fact that since 1884 the "bread-eaters" of European lineage have increased more than five times as fast as acres of wheat, and that the world's bread-grain area—the area employed in growing wheat, rye, spelt, maslin and buckwheat—is smaller than fourteen years ago, despite the fact that in the last fourteen years 83,000,000 units have been added to the consuming populations, and that average annual unit consumption of the bread-making grains equals the net product of 0.7 of an acre. That is, world requirements for bread have increased in the equivalent of net yields (yields exclusive of the seed required to replant) from more than 50,000,000 acres since an acre was added to the bread-bearing lands. Unless we can have a succession of crops giving acre yields 17 per cent. above an average, supplies of bread—now that the last "remainder" is about to disappear—must become both defective and high unless the world can make good this great acreage deficit while yearly adding at least 4,300,000 to fill the new mouths opened annually. The character of this task will be apparent, as will the probable trend of prices, when we remember that at no time in its history has the world been able, even for a single decade, to add an average of 3,000,000 acres per annum to the area bearing the bread-making grains. And yet the world goes on in blissful ignorance and disregard of these significant facts, and the only man who has taken pains to state them has been set down as a "statistical crank who would bring prosperity by starvation," although he had nothing whatever to do with creating the conditions he outlined.

American statesmen have ignored these facts and sought to mend the farmer's condition by tinkering with tariffs and the currency, while abroad the Premier of France has told those desiring a reduction of the duty upon wheat that scarcity was impossible, and the world would always have "wheat enough to go round" because the number of exporting nations had increased and steam transportation assured the speedy carriage of the required bread to those in need, apparently oblivious of the fact that the steamship never yet added an ounce to the bread supply.

If, as the area shortage indicates, the world's bread supply will depend upon harvests giving acre yields 17 per cent. above the average of the last twenty-seven years, the world is evidently dependent upon a broken reed, as the greatest crop of wheat ever grown of which we have any record (that of 1894) gave an acre yield less than 11 per cent. above an average, and aggregated nearly 100,000,000 bushels less than the requirements of the 1898-99 harvest year.

As the world grows no more of other staples, except American maize, than is required year by year, and Europe, which grows two-thirds of the wheat of the world, being unable to add materially to the wheat-bearing lands, there is little probability of a considerable increase of the area unless the farmers of the United States convert the surplus 10,000,000 acres of corn land into wheat fields, as it is altogether probable they will within three years, and possibly within two years. In this way the world may secure wheat enough from America to meet the requirements of the units that will be added to the "bread-eating" populations in the next thirty months. After this, where is the land to come from which shall meet the requirements of the 6,500,000 which will be added each recurring year? Argentina, Australasia and British North America have, combined, added wheat land enough in the last fourteen years to supply the "bread-eaters" brought into existence in but sixteen months of that time! Argentina grows less wheat than Kansas, and exports less, having three times the population of Kansas. Possibly South America, Australasia and British North America may double their 13,000,000 acres in the next ten years, and thus take care of three years' addition to the "bread-eating" force. This is possible, but not very probable. About half of 13,000,000 covers the probable extension unless prices reach a very high level.

The potent factor in making present prices has been the great acreage deficit,



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Established nearly Half a Century.



as the acre yield from the crop of 1897 was but 5½ per cent. below the average, while in 1875 and 1876 one crop followed another each of which was 12.5 per cent. below an average; and yet prices were not then very high, because the acreage was not then defective. As the area deficit has caused the present turn, so will it maintain prices at a remunerative level until this deficit can be eliminated. And how can it be?

The dealer, the statesman and the economist will and do tell us that when wheat is high other and cheaper foods are and will be substituted therefor. Evidently these leaders are oblivious of the fact that during the last twenty years wheat has been continuously substituted for the cheaper foods, and to such an extent that the world's annual requirements are now 180,000,000 bushels greater than if such substitutions had not obtained. Possibly there have been substitutions during recent months in Europe, as we know there have in America, but they have mostly been made surreptitiously in the form of adulterations, and against the wishes and without the consent or knowledge of the swindled consumer.

Possibly when wheat gets higher than now increasing quantities of substitutes may be used, but those who say most about such things never stop to reflect that it requires about as much land to grow the nutritive equivalent of wheat in other forms, and that the land all being employed it will make less difference to the farmer than any other member of the community what his land is used for, as prices for all staple products will be high when wheat is high in price. It is probable that substitutions will continue in the other direction—substitutions of wheat for rye, spelt, maslin, buckwheat and potatoes—as long as the masses of Europe continue as prosperous as now; just as they have continued in the last twenty years, and to such an extent as to increase unit consumption of wheat by more than 9 per cent.

The conditions which I outlined as inevitable as long ago as 1890 now obtain. They have been between two and three years longer in coming than expected, as no one ever dreamed of ten world wheat crops in succession of which only one would be below the average in acre yield.

This is just what occurred in the ten years ending with 1896. There can be no reversion of the current unless the people cease to eat, as the largest crop ever grown would now be greatly less than current requirements, and requirements are increasing much faster than it is possible to increase the bread-bearing lands of the world. Therefore, the farmer is quite sure of remunerative prices no matter what the state of the tariff or the currency. He is the one member of the community who has the absolute monopoly of a productive machine which cannot be multiplied, and the productive power of which is susceptible of but moderate increase.

C. WOOD DAVIS.

Peotone, Kas., May 2, 1898.

#### Reduced Rates to Grand Encampment Mining District, Wyoming.

The Union Pacific will sell tickets at one fare for the round trip, plus \$5, from all points in Kansas, Nebraska, Colorado and Utah to Rawlins, Wyo. Dates on which tickets will be sold are first and third Tuesday in May, June, July, August, September, October and November. Stage line daily except Sunday each way between Rawlins and Grand Encampment.

For full information call on or address F. A. Lewis, City Ticket Agent, or J. C. Fulton, Depot Agent, Topeka.

#### Don't Tobacco Spit and Smoke Your Life Away.

To quit tobacco easily and forever, be magnetic, full of life, nerve and vigor, take No-To-Bac, the wonder-worker, that makes weak men strong. All druggists, 50c or \$1. Cure guaranteed. Booklet and sample free. Address Sterling Remedy Co., Chicago or New York.

#### Difference Between Aspiration and Inspiration of Life.

On this subject Florence Hall Winterburn writes sensibly in the Woman's Home Companion:

Long ago, upon the occasion of some fancy flight upon my part, an elderly man said to me, with what then seemed unkind severity: "There are two sorts of genius, that of inspiration, and that of aspiration. Are you sure yours is not mere aspiration?"

Only lifelong experience can answer this question for some of us. When the extravagant hopes of youth have been chastened by repeated disappointments and, we have learned something of our own capacity and weakness by measuring ourselves against stronger natures, we slip down to our place in the world and fulfill our destiny more or less well, according to the talent we have for adapting ourselves to circumstances. Adaptability is a very good substitute for genius, and people who can make themselves contented with doing their best, even if it is far from what they desire to do, and in a different field from the one they would choose to work in, these people are the ones who spread the circles of sweetness and light, whom the world needs; who are most appreciated while they live, and missed when they die. Remove the few immortals from knowledge and memory and literature, art and science grow poor, indeed. The many souls that have got from them all their belief in high things, an inner hope of something better and finer than the grind of common life, would shrivel and shrink like plants deprived of sunlight, and the general level of human endeavor would sink somewhat, perhaps a great deal, when shining examples of greatness no longer drew it upward.

But remove instead all the striving, struggling spirits whose fate it is to know more than they ever attain; to reach out blindly after what is beyond them, but toward which they grow in the very act of stretching, and we should remove the best element from the world—the working element—that to which the majority of superior minds belong. Only the dregs of humanity would be left. For the genius for aspiration is so general, so widely diffused among the people of a free country that it may be said to be the inevitable accompaniment of intelligence. Inasmuch as it is always a desire for things that seem to us higher than those we already possess, it is good. They may not be really better, and here lies the risk.

We rate ourselves too often at what we intend to do, and judge of our capacities by the strength of our ambition. Men get their natural rating in the world quicker than women; generally they accept their downfall more philosophically. Repining is rather a feminine characteristic which a man feels ashamed to cultivate in himself. But strong women, as well as weak ones, repine over the defeat of what they consider laudable ambitions. In the bitter day of despair we say we have lived in vain, because what we set our hearts upon has been denied us. We craved a high place in art; the world should have cherished our memory. We aimed for social power, to use nobly. We longed for larger opportunities for philanthropic work; none better fitted than ourselves to carry it on. And after a life spent in fruitless effort, in perpetual struggle in unending heart-breaks, where are we? Only a little beyond our starting point, with many things attempted and few even partially completed; with perhaps just one small thing really done, and that so paltry in comparison with our intentions, so insignificant in the great sum of human accomplishment! We pronounce the fatal word, "failure," over ourselves, and think of our past with regret, of our future with impatience that no fresh hopes transmute into new resolve.

Herein many men and women of talent, particularly women, are lacking in

the power to judge themselves and their work correctly, in the sense of being able to put a thing into its rightful place. If we have done the best that lies in us, is not that enough? Who shall say with certainty that we had greater powers than we have manifested; that we have the right to consider ourselves defrauded by fate in not being given larger opportunities for action? By our completed acts we must judge of our abilities, even though vanity whispers of rare merit. Doubtless if environments were more favorable to all of us, if circumstances lent themselves to us willingly, instead of bending under strong pressure, we could all do much more than we do. That impulse that visited us as a dream, a wish, but faded away under the fierce light of day, with its regular task, would have come to something, and instead of conferring only the momentary relation that we mistook for a divine uplift, it would have remained with us as an enduring inspiration.

Let us not say, then, in the desponding hour of wounded aspiration, that life is a failure, because we fell short of our designs. There are unwritten successes, unrecognized accomplishments. "Some things are known and some things are hid." Perhaps as we went along, plodding, we builded better than we knew; and although we may have mistaken aspiration for the genius of inspiration, some divine spark perhaps shot upward when we were engaged in homely tasks and before the eyes of our fellow men and women, even in our own critical sight, we need not be ashamed.

#### Bread the World Over.

"It is a curious and interesting study," says the superintendent of the baking department in a certain industrial school, "to compare the various materials which serve the different nations of the world as the basis of their bread, in this country where good bread, made from spring and fall wheat flour, is within the reach of all. Rarely a thought is given to the fact that, after all, the inhabitants of only a small portion of the earth's surface enjoy such a food.

"In the remoter part of Sweden the poor people make and bake their rye bread twice a year, and store the loaves away, so that eventually they are as hard as bricks. Further north still bread is made from barley and oats. In Lapland, oats, with the inner bark of the pines, are used. The two together, well ground and mixed, are made into large flat cakes, and cooked in a pan over a fire. In dreary Kamchatka, pine or birch bark by itself, well macerated, pounded and baked, frequently constitutes the whole of the native bread food. The Icelandic scrapes the 'Iceland moss' off the rocks and grinds it into fine flour, which serves for both bread and puddings. In some parts of Siberia, China and other Eastern countries a fairly palatable bread is made from buckwheat. In parts of Italy chestnuts are cooked, ground into meal and used for making bread. Durra, a variety of millet, is much used in the countries of India, Egypt, Arabia and Asia Minor for making bread. Rice bread is the staple food of the Chinese, Japanese, and a large portion of the inhabitants of India. In Persia the bread is made from rice flour and milk; it is called 'lawash.'

"The Persian oven is built in the ground, about the size of a barrel. The sides are smooth mason work. The fire is built at the bottom and kept burning until the wall or sides of the oven are thoroughly heated. Enough dough to form a sheet about a foot wide and two feet long is thrown on the bench and rolled until about as thin as sole leather, then it is taken up and tossed and rolled from one arm to the other and flung on a board and slapped on the side of the oven. It takes only a few minutes to bake, and when baked is spread out to cool. This bread is cheap (1 cent a sheet); it is sweet and nourishing. A

specimen of the 'hunger bread' from Armenia is made of clover seed, flax or linseed meal, mixed with edible grass. In the Moluccha islands the starchy pith of the sago palm furnishes a white, floury meal. This is made into flat, oblong loaves, which are baked in curious little ovens, each oven being divided into oblong cells to receive the loaves. Bread is also made of roots in some parts of Africa and South America. It is made from manioc tubers. These roots are a deadly poison if eaten in the raw state, but make a good food if properly prepared. To prepare it for bread the roots are soaked for several days in water, thus washing out the poison; the fibers are picked out, dried, and ground into flour. This is mixed with milk, if obtainable; if not, water is used. The dough is formed into little round loaves and baked in hot ashes or dried in the sun."—Good Housekeeping.

#### Unpleasant.

The vanishing of a well-known hand from the pages of Punch brought to a close the series of pictures illustrating "things that might be different." If Mr. Du Maurier were still alive he would be tempted to deal with a little incident of recent occurrence. A member of the House of Commons, having written to make inquiry about the health of an acquaintance, received the following answer: "In reply to your kind letter to hand this morning, I have to inform you brother has passed from earth to heaven."—H. W. Lucy, in London Daily News.

#### Publishers' Paragraphs.

Rock Salt for Stock.—Use Kansas Rock Salt for stock. Best and cheapest way of salting your stock.

The United States Navy Department has placed an order for 500 galvanized seamless steel coal baskets with the Granite State Evaporator Co., 504 Temple court, New York city. This company expects orders for several thousand more to follow this one.

Huber Engines and Threshers.—The Ferguson Implement Co., Kansas City, Mo., is general agent for the celebrated Huber engines and threshers, and reports the biggest trade in Kansas and Oklahoma—far in excess of former years, attesting the merits and popularity with threshermen of the Huber separator and wind stacker. This stacker won the \$200 in gold offered as first prize for the best straw stack made with a pneumatic or wind stacker. Any of our readers desiring threshing machinery should by all means write and get the "Huber Annual," and it is also important that orders should be placed now, as it is more than likely that, later in the season, it will be impossible to secure engines or threshers owing to the unusual demand.

Cows should have plenty of water in summer.

#### No-To-Bac for Fifty Cents.

Guaranteed tobacco habit cure, makes weak men strong, blood pure. 50c, \$1. All druggists.

Breed swine from well-matured animals.

Baptist Anniversaries—Rochester, N. Y., May 16-24, 1898

The Nickel Plate road is authorized to sell tickets to Rochester, N. Y., and return at one fare and one-third for the round trip, on certificate plan, account above meeting. Tickets good on any of our through express trains leaving Chicago from the Van Buren street passenger station at 10:35 a. m., 2:55 p. m., and 10:15 p. m. Vestibuled sleeping cars and unsurpassed dining car service. Colored porters in charge of the day coaches. You will save time and money by patronizing the Nickel Plate road. For further information call on or address J. Y. Calahan, general agent, 111 Adams St., Chicago, Ill.



## Horticulture.

### INSECT ENEMIES.

From Bulletin No. 77, by Profs. E. E. Faville and Percival J. Parrott, of Kansas Agricultural College Experiment Station.

#### The Flat-headed Borer.

(*Chrysobothris femorata*, Fabr.)

The work of the "flat-headed borer" is well known in the State. This insect selects for its attack principally trees

### REMEDIES.

All the trees should be kept in a healthy condition. By this means most trees may be kept exempt from attacks.

Infested trees should be stimulated to make vigorous growth, thus increasing the flow of sap, which is injurious to the young larvae, usually causing death by drowning. Unthrifty trees in the orchard should be brought into a state of thrift, by training trees, avoiding careless pruning, and preventing sun-scalded and decaying spots. In fact, the orchard should be made as exempt as

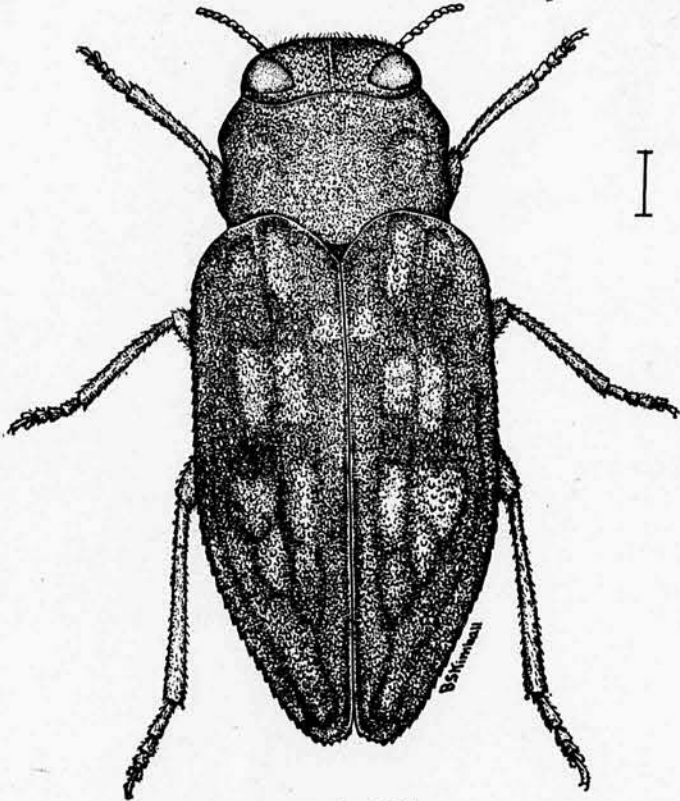


FIG. 21. Adult.

which are weakened, owing to poor soil, lack of cultivation, prolonged droughts and unusual extremes of cold and heat.

The insect almost invariably attacks place for the depositing of its eggs sun-scalded parts of the tree or parts that have been injured or bruised.

The apple, pear, plum, peach, cherry, quince and ash are subject to attack. That the tree is being attacked is indicated usually by a discoloration of the bark on the south and southwest sides, where the larvae may be found in the largest numbers. Upon removing the bark numerous channels may be found upon the inner sap wood, which are filled with the castings of the larvae. These channels often girdle the tree. The adult (Fig. 21) is flat and depressed, about three-eighths of an inch in length, general color greenish-black with copper reflections.

The insect appears in this latitude about the last of May; eggs are deposited from that time on until September. The adult is a lover of sunshine and may often be found basking in the rays of sunlight or running to and fro with remarkable activity upon the tree. In the early morning and evening or during stormy weather the insect is more sluggish in its movements. The eggs are small and yellowish in color, irregularly ribbed, and are deposited either singly or in numbers in the crevices of bark afforded on trunks of trees between the ground and lower limbs, being attached by means of a gummy substance secreted by the female. Upon hatching, the larvae (see Fig. 22), yellowish in color, with a broad, flattened head, gradually makes its way to the sap wood upon which it feeds during the early stages of life. It is at this period that



FIG. 22. Larva.

the presence of the larvae is noted by the exudation of "worm castings." As they develop in size and strength they devour more ravenously the hard wood, boring flattened channels. The time required for the larvae to reach maturity is not known, but it is generally agreed that they take but one year to reach their transformations. When the larvae have obtained their full growth they gnaw a channel to the outside, cutting through the bark with the exception of a thin partition, and then retreating a little way they block their channel with castings, and change to chrysalides,

possible from the infestation of the pest. The orchard should be inspected during the autumn, and wherever the work of the borer is detected by discoloration of the bark or by sawdust filings the larvae should be removed with a sharp knife. As a mechanical preventive the trunks and large limbs of trees should be given a coat of alkaline wash recommended for the "peach tree borer," which is repulsive to the female during oviposition. This application should be made during May and repeated at intervals during the summer.

#### Round-headed Apple Tree Borer.

(*Saperda candida* Fabr.)

The round-headed apple tree borer is readily distinguished from the flat-headed apple tree borer in its appearance and life history, though attacking the same trees when under same conditions. The adult is a little over five

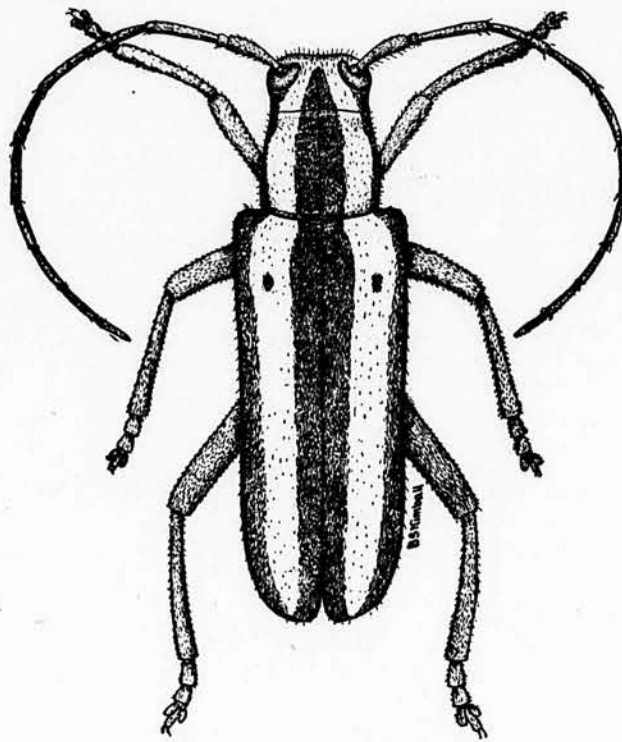


FIG. 23. Adult (greatly enlarged).

eighths of an inch long (see Fig. 23), having long-jointed feelers or antennae, extending over the back. It is brown above, with two white stripes extending down the back, the head and under surface of the body grayish. The insect is nocturnal; during the day it remains concealed, but at dusk commences to fly and deposit its eggs. The female appears about the first of June and

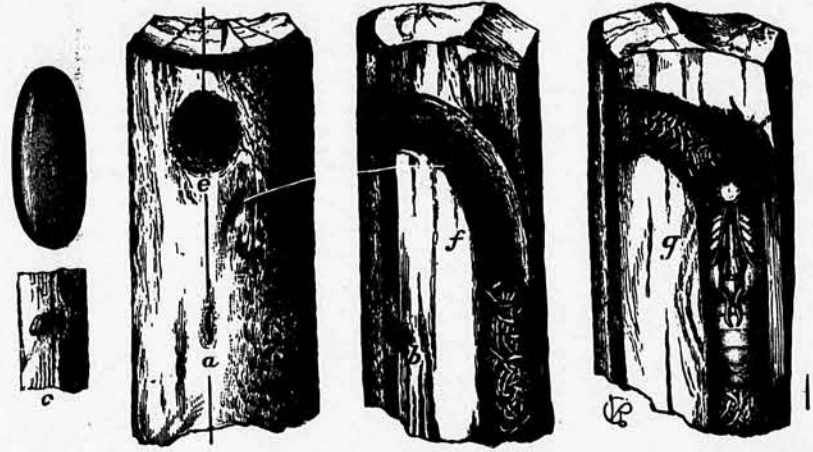


FIG. 24.

a. Incision in which egg is deposited. b. Same, the wood has been split along a line a, c, showing egg in place. c. Showing how egg is inserted under bark. d. Egg greatly magnified. e. Hole through which adult emerged. f. Channel of larva. g. Insect in pupal state just before issuing as an adult.

stays until September. Eggs are deposited in small incisions in the bark of the trunk near the ground and occasionally on some of the lower, larger limbs. In about two weeks the larvae hatch and commence to gnaw their way into the inner bark and sap wood, where they burrow out disk-shaped cavities, leaving excavations behind them filled with their castings (Fig. 24). The young larvae confine their attacks for the first two summers to the sap wood, where they accomplish their greatest damage. If a number are working in close proximity on a young tree the

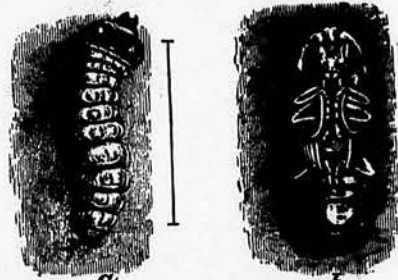


FIG. 25. Larva and pupa.

chances are that it will be girdled. After the second winter the larvae are more active and make rapid growth. As they approach maturity they cut cylindrical channels upward in the hard wood of the tree; by fall they have attained full size. They then burrow outward to the inner surface of bark and there in the cavity thus made and lined with castings and woody fiber they remain inactive until spring, when they pass into the pupal state. In about three weeks the transformation is completed; the adults, having worked their way through the barriers of castings, gnaw a hole through the bark and escape. The larvae (Fig. 25) when full grown are over an inch in length, whitish in color, footless and fleshy, with a brown head.

### REMEDIES.

The same treatment should be given

itor. "If the article is small in bulk, like a hair brush or a tea caddy, spread the paper out upon the floor, and, placing the article in the center, wrap it by carefully folding the edges over it and tie it with a string. This will keep the article from slipping out of the paper. If, on the other hand, the article is an English bath-tub or a clothes-horse, you would better not try it at all."—Harper's Bazar.

### How's This!

We offer One Hundred Dollars Reward for any case of Catarrh that cannot be cured by Hall's Catarrh Cure.

F. J. CHENEY & CO., Props., Toledo, Ohio.

We, the undersigned, have known F. J. Cheney for the last fifteen years, and believe him perfectly honorable in all business transactions and financially able to carry out any obligation made by their firm.

WEST & TRUAX, Wholesale Druggists, Toledo, Ohio.

WALDING, KINNAN & MARVIN, Wholesale Druggists, Toledo, Ohio.

Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price 75c per bottle. Sold by all Druggists. Testimonials free.

### Beauty Is Blood Deep.

Clean blood means a clean skin. No beauty without it. Cascarets, Candy Cathartic clean your blood and keep it clean, by stirring up the lazy liver and driving all impurities from the body. Begin to-day to banish pimples, boils, blotches, blackheads, and that sickly bilious complexion by taking Cascarets,—beauty for ten cents. All druggists, satisfaction guaranteed, 10c, 25c, 50c.

### One and One-third Fare

For the round trip on certificate plan to Cleveland, Ohio, and return will be made by the Nickel Plate road, account of meeting of Supreme Council of the Royal Arcanum, May 18-25, 1898. Three through trains daily with service equal to that of any other line between same points. You will save time and money by patronizing the Nickel Plate road. Try it and be convinced of the advantages afforded the traveling public. J. Y. Calahan, general agent, 111 Adams St., Chicago, will be pleased to furnish any information relative to rates, etc. Trains depart from the Van Buren street passenger station, Chicago, Ill.

### RATES TO OMAHA.

#### Railroads More Liberal Than to the World's Fair at Chicago.

Rates and arrangements on account of the Omaha exposition have been completed by the Western Passenger Association lines. The rates are more liberal than those made for the Chicago exposition.

Summer tourist tickets will be sold at 80 per cent. of double locals to Omaha from all sections of the country, with final return limit to November 15.

From all association points east of Colorado a rate of one fare and a third for the round trip will be made from June 1 until October 30, with a thirty-day return limit, provided, however, that in no case the rate from the following points to Omaha shall be less than \$20 from Chicago, \$17 from Peoria, \$17 from St. Louis, \$25 from Colorado common points and \$15.75 from St. Paul and Minneapolis.

For the opening ceremonies a rate of 1 cent a mile will be made from all points within 150 miles of Omaha. From points beyond the 150 mile limit the rate will be one fare for the round trip. All tickets of every character through Omaha, in either direction, will be made good for stop-over at Omaha not to exceed five days. The minimum rate for any round trip ticket is to be 50 cents.

### No Contributors.

"How can I get an article in your paper?" asked a correspondent of a Western journal.

"It all depends on the article you want to get into our paper," replied the editor.



## In the Dairy.

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

### Thoughts from a Plain Farmer.

Editor Kansas Farmer:—There seems to be a widespread notion that "farmers' butter" cannot equal in quality the product of the creamery. Go to any country store and ask the price of butter and you will be told that "creamery" is worth so much, while farmers' butter is at least 2 cents, and often 5 cents or more, lower. The cause of this discrepancy is largely due to a lack of uniformity, not only in the product of neighboring farms, but several samples of butter from the same place and made by the same person often show a marked difference in quality. This uncertainty in the quality of his product reacts on the dairy farmer to his pecuniary hurt. For, as noted above, the selling price of his butter is too often lowered permanently, even when it may nearly or quite equal the product of the nearest creamery.

Now dairying is, or should be, the most profitable line of employment a farmer can pursue. And if he make from twenty-five to 200 or more pounds per week, as many dairy farmers do, a loss of even 2 cents per pound becomes quite an item, and especially so since no portion of it enters into the running expense, but is so much clear. Instead of the dairyman producing butter inferior to "creamery," or at least that lacks the uniformity of the creamery product, it is within his power to excel the creamery in producing butter of uniformly superior grade.

The truth of this statement becomes more readily apparent if we take into consideration two things:

First—The milk received at the creamery comes from many sources and has been subjected to nearly as many different conditions. It is of varying degrees of freshness, or in some cases of staleness, for many smaller patrons deliver their milk but once in two days. It has also of necessity lost much of its animal heat, and milk never is creamed to better advantage than when first drawn.

Second—The dairyman who is also his own butter-maker has within his control every condition influencing the quality of his product, and if he is keenly alive to his own interest he will allow no portion of this advantage to be lost to him. Care will be exercised that the milk should not become tainted from rank foods given at unsuitable times. The stables will be properly ventilated and cleaned, and the cows well brushed off and if need be their udders washed before the milk is drawn, and what is a matter of not the least importance in the production of uniform butter of first quality, provision will also be made for creaming the milk while warm and sweet.

In this last-named factor lies the one great advantage of "creamery" over farmers' butter. For by the use of the separator employed in butter factories for creaming the milk, not only is the cream secured in its best estate, but much of the filth and foreign substances are removed. Some separators also thoroughly aerate the milk, from which the odors and taints of rank foods are thus driven off. These advantages have been enjoyed only by the creameries until within a few years, but there are now reliable hand-power cream separators to be had which do quite as good work as the larger machines, and it is only necessary to observe ordinary care that an honestly built separator is selected.

My own experience is confined to the Sharples Farm separator, made at West Chester, Pa., and it has proven a most satisfactory machine. It is very simple, easily cared for, and turns as readily as a grain fan. And the cream—well, I never saw such cream from any other source; and I am perfectly content to let the pigs have what cream is left in the skim-milk, but some corn meal will be needed with it to fatten them. Among other advantages a separator offers is a great saving of time, which is a matter of special importance in the busy season.

One farmer I know of feeds his warm skimmed milk during the winter to his cows, and says he is satisfied it saves him about 20 per cent. of other feed. I mention this because ordinarily the warm skimmed milk is thought of only as a first-class food for calves and pigs.

Another thing that keeps some farmers from realizing as much as they should for their butter is that they have become so accustomed to their own make that they do not appreciate the fact that the market may demand something different. The peculiarities of their method of handling the milk, cream and butter

is stamped indelibly upon the product of their dairies, and they themselves, from having eaten this product for years, have become so entirely used to this home-bred flavor that it stands for highest quality with them, and they are honestly surprised that it is not equally appreciated by every one else.

That, for profit, no other branch of farming can approach dairying is a well recognized fact. It is necessary, however, in order to attain generous success in this department, to apply to it business principles just as must be done in any mercantile pursuit; in other words, to produce the best possible article at the least possible expense. X. X.

### Rules for the Patrons.

Some time ago Mr. A. W. Shay, butter-maker of the Wayne creamery, Nebraska, sent out the following suggestions and rules to each of his patrons, and says, "I can already see a change for the better, both in the care of cows and milk."

"Kindly read the following suggestions on the care of cans and milk, that we may raise the standard of our butter, and by so doing we not only give our creamery a good name, but we encourage patronage, etc., and—certainly increase our own profits. As your butter-maker, I will do all I can to make your milk into a product that will always command the highest price and place the Wayne creamery on a paying basis.

### CARE OF CANS.

"1. Empty your skim-milk out of your cans as soon as possible after you get home, as it is a bad idea to let them stand too long with the skim-milk in."

"2. Clean your cans by first rinsing them in warm water. Then clean inside and out with a brush and hot water, in which it is a good idea to dissolve some kind of a cleaning material, such as gold dust, kirklene, etc. Then rinse good in pure water and leave them in the sun until wanted for use.

### CARE OF MILK.

"1. See that your stable is clean and well aired before milking.

"2. Do not allow your cows to eat any strong-flavored food, such as garlic, cabbage, turnips, etc.

"3. Be sure and cool your milk (by placing the cans in cold water and stirring) as soon as possible after milking. This is essential, for two-thirds of the tainted, bad-smelling milk is caused by cans being covered before animal heat is removed from the milk.

"4. I would advise you to leave covers off entirely, and use mosquito netting to keep out insects; only see that your cans are where they will have pure air.

"5. Do not mix fresh warm milk with that which has been cooled if it can be avoided.

"6. When coming to the creamery in hot weather, cover the cans with a wet blanket or canvas.

"7. Bear in mind through the coming summer that 'coolness' and 'cleanliness' are the best preventives for sour and tainted milk."

### Dairy Notes.

Minnesota creamerymen expect to secure something over 300 square feet for their exhibit at the Trans-Mississippi exposition.

A bill has been introduced in the Massachusetts Legislature which requires milk cans to be kept clean and free from foreign substances.

Kansas City, Mo., has passed a city ordinance making it unlawful to sell butter in Kansas City which contains more than 12 per cent. of moisture.

Hardly any two farmers will agree as to the value of skim-milk to them, and yet much of the profit in dairying will depend on what the milk producer can make out of the by-product. Fed fresh, sweet and warm and properly mixed with meals, it has a very high value in growing calves and pigs, but if it is fed out of condition and without regard to what accompanies it, it may be practically worthless, and produce more injury by the digestive disturbances it causes than it does good.

Supreme Council of the Royal Arcanum Will hold a meeting in Cleveland, Ohio, May 18-25, for which the Nickel Plate road is authorized to sell tickets at one fare and one-third for the round trip on certificate plan. Unexcelled dining car service. Vestibuled sleeping cars and day coaches are in charge of colored porters. Rates lower than via other lines. Three through trains daily from the Van Buren street passenger station, Chicago, Ill. For detailed information call on or address J. Y. Calahan, general agent, 111 Adams St., Chicago, Ill.

## "ALPHA-DE LAVAL" CREAM SEPARATORS.



De Laval Alpha "Baby" Cream Separators were first and have ever been kept best and cheapest. They are guaranteed superior to all imitations and infringements. Endorsed by all authorities. More than 125,000 in use. Sales ten to one of all others combined. All styles and sizes—\$50. to \$225.—Save \$5. to \$10. per cow per year over any setting system, and \$3. to \$5. per cow per year over any imitating separator. New and improved machines for 1898. Send for new Catalogue containing a fund of up-to-date dairy information.

### THE DE LAVAL SEPARATOR CO.

RANDOLPH & CANAL STS., CHICAGO. 74 CORTLANDT STREET, NEW YORK.

## Separator Economy



consists in using that machine which costs nothing for repairs; which uses the smallest amount of oil; which is so durable as to last indefinitely, and which takes every particle of butter fat out of the milk. Thousands of experienced users seeing this would say

### SHARPLES SEPARATORS

at once. And they would guess correctly, too. SHARPLES SAFETY HAND AND LITTLE GIANT SEPARATORS meet all the above conditions.

### BRANCHES:

Elgin, Ill.  
Omaha, Neb.  
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P. M. SHARPLES,  
West Chester, Pa.



\$5 Hand Bone, Shell, Corn & Grit Mill for Poultrymen. Daisy Bone Cutter, Power Mills. Circular and Testimonial Books. WILSON BROS., Easton, Pa.

## "AMERICAN" CREAM SEPARATOR



### CREAM SEPARATOR

was awarded

### FIRST PREMIUM

at St. Louis Fair, 1897, as the

### BEST

Farm Cream Separator

Correspondence solicited.

FOR SALE BY

S. F. WICKER,

MADISON, KANSAS

## HOUSE PAINTS



Victory Implement and Wagon Paints, Nonparell Carriage Paints.

Home-made and the best made for all purposes. Window and Picture Glass, Hot-bed and Greenhouse Glass.

If your dealer does not carry these goods send direct to

CUTLER & NEILSON PAINT AND COLOR CO., Manufacturers and Jobbers, N.W. Cor. 11th and Mulberry Sts., Kansas City, Mo.

## Brass, Aluminum, Grey Iron Castings

Patterns, Models, Machine Work.

TOPEKA FOUNDRY, TOPEKA, KAS.

## THE BEST CREAMERY BUTTER SALT

In the world is manufactured in Kansas. INSIST on having RIVERSIDE brand.

A free sample will be gladly furnished on application by

Kansas Salt Co., Hutchinson, Kas.

## Hodges "Lassie" Self Dump Hay Rake....

A good hay rake must be light, strong, have large gathering capacity, dump easily and quickly and return quickly, etc.

These are among the prime features embodied in this rake. It is constructed entirely of steel except the shafts. It has a long main axle of 1 1/2 inch steel; quick, simple and positive foot trip for dumping; is mounted on our own make of steel bicycle wheels; has 22, 28 or 34 crueble steel oil tempered teeth; is made in three sizes, 8, 10 and 12 feet; teeth are flattened at ends in sled runner form to avoid taking up trash, manure, etc. This rake is also made in hand dump pattern. Manufacturers also of the Famous Hodges Header, Hodges Hercules Mower, Monarch and Acme Sweep Rakes and Acme Stackers. Write for what you want and don't buy until you get our new illustrated catalogue. We send it FREE.

ACME HARVESTER COMPANY, PEKIN, ILL.

## OSBORNE FARM IMPLEMENTS

The largest complete line of farm machinery manufactured by any single concern in the world; embraces:

TRADE MARK Osborne Columbia Inclined Corn Harvester and Binder, Columbia Grain Harvester and Binder, Horse Hoe Cultivators, Osborne Reaper, No. 8 Reaper, Columbia Mowers, (1 & 2-horse) Osborne All-Steel Self Dump Rakes, Hand Dump Rakes, Flexible and Reversible Disc Harrows, Combination Harrows, Adjustable Peg-Tooth Harrows, Rival Disc Harrows, Sulky Spring-Tooth Harrows, Spring-Tooth Harrows, All-Steel Tenders, etc. Every machine is fully warranted and is the best of its class that can be produced with good material, complete equipment, superior skill and long experience.

The Out shown here is that of our Osborne Columbia Inclined Corn Harvester & Binder, so called because it cuts corn in an upright and binds it in an inclined position. It is the greatest labor saver and money saver of the age. It saves all the stalks—fodder—which is almost equal in value to the grain. It has a gatherer that makes it impossible for a stalk to escape. The corn is cut, not pulled up by the roots. Cuts and binds 7 to 10 acres in a day. Cuts as high or as low as you wish. It's made the best we know how—solid piece main frame, roller bearings all over, every working part visible to the driver. Main drive wheel has unusually large lugs—gives perfect traction on softest soil. Carries bundles same as our grain harvester. It's the only corn binder that successfully binds corn. DON'T BUY UNTIL YOU SEE OUR LOCAL AGENT. Handy book on the farm and house free.

D. M. OSBORNE & CO., St. Louis, Mo.



## Horse Owners! Use

GOMBALD'S  
Caustic  
Balsam

A Safe Speedy and Positive Cure  
The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar 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.

## The Veterinarian.

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 this 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 give the inquirer's postoffice, should be signed with his full name, and should be addressed direct to our Veterinary Editor, Dr. Paul Fischer, Professor of Veterinary Science, Kansas State Agricultural College, Manhattan, Kas.

**YEARLING STEER OUT OF CONDITION.**—I have a one-year-old Hereford steer which run all last summer with the cow in a good pasture. At weaning time last September he was in excellent condition. Early in December last he commenced failing and about the first of March last he refused to eat his corn (shelled and soaked). We fed him and twenty-five other steers of same age all winter on good bright corn fodder, cane, hay, flax straw and shelled dry corn in a good dry lot, with a good warm shed in it with plenty of pure well water in the lot. Six weeks ago we put him all by himself in a green rye pasture, a hedge between him and the other calves. Symptoms: His eyes are looking dull, with white-looking matter in them. He commenced slabbering, when he refused to eat corn, and still continues. His skin is covered with white scales. His hair looks rough. His navel is sore (not preventing making water). The skin is cracking around the navel, and at late he is somewhat lame at times. He has no lice or cough, but is poor and weak. His bowels and urinary system seem to be all right. He seems to eat and drink just enough to sustain life and that is all. All he eats now is green rye. He received no treatment whatever. Never has been overheated or foundered. G. Z. Howard, Kas.

**Answer.**—Keep animal on short rations of green feed and supplement this with a little bran, or better, oil meal. Feed just a little less than he seems to be willing to take. Keep him in comfortable quarters, and see that he gets pure water to drink. Give the following powder in half a pint of tepid water, twice daily, as a drench: Arsenic, 1 grain; powdered licorice root and powdered althaea root, of each 2 drachms; mix and give as one dose. Continue this for four or five days, skip two or three days, then give medicine again for four or five days, and so on for a few weeks. Then report progress to me, referring to this number of the Farmer. If you care to go to the trouble, cury the animal daily, and you will be surprised when you see the effect of this remedy.

**DERMATOCOPTES MANGE.**—I have a nine-year-old bay mare affected with what a veterinarian here calls a mane mange. Seat of trouble is in the mane and at the root of tail, both of which are kept pretty well rubbed off. Hide in the affected parts seems to thicken; to be stiff, rather uneven, almost lumpy on the tail. Small eruptions occur on all parts affected. These form a small brown scab which breaks up of its own accord, rubs off and others occur. It is now on root of tail, in mane and on the ears. It was over her back, but a remedy given me by the above-mentioned veteri-

narian took it off the back. I went to the druggist and got the prescription he used. It was tartaric acid, spirits of camphor and soap. Have looked closely for grubs, but find none. Mare is a good feeder and is fat and sleek as a seal, but is annoyed very much by the itching. My opinion is that it is in the blood. Also, is there any remedy for the heaves? Harper, Kas. W. B. O.

**Answer.**—(a) Your animal has, in all probability, what is known as dermatocoptes mange, a parasitic skin disease that affects the region of the mane and tail but may spread to some other parts of the body. It is communicable from one horse to another, just like sheep scab, or Texas itch of cattle. It has nothing whatever to do with the blood. Wash the affected parts of the skin with soap water (thoroughly) to remove all scabs, and then apply a 5 per cent. solution of creolin in water. Do this as thoroughly as you possibly can, and repeat the operation daily for two or three weeks, in which time recovery will probably set in; if not, write again. (b) Heaves, as a rule, may be considered as an incurable disease. The causes at the bottom are usually permanent changes in the structure of the air vesicles of the lungs, the passages to the lungs, or of the heart. Most cases of heaves can be relieved by proper dietetic treatment and avoidance of violent exercise. The food should be easily digestible and concentrated—plenty of oats and little but good hay; no straw nor corn fodder. Avoid dusty, musty or otherwise spoiled food of any kind. Some kinds of dusty hay tend to produce heaves. Such hay, even when "wet down," should not be fed to any horse (except in case of an emergency); but in a horse with heaves the injurious effects of such hay are always very marked.

Attention is directed to the change in the advertisement of the Kansas City herd of Poland-Chinas, owned by W. P. Goode, Lenexa, Kas. His trade has been satisfactory and the present pig crop is grand indeed. The show sow purchased of Risk & Gabbert has nine fine pigs by Hadley Jr., and the pigs sired by Iowa Champion are as fine a lot as could be desired. Mr. Goode is quite pleased with the way the pigs are coming on.

## Who Wants a Buggy?

It may interest some of our readers who intend buying a buggy or other vehicle to know that the popular and well-known Alliance Carriage Co., No. 287 Court street, Cincinnati, Ohio, always paste their printed guarantee on the seat of every buggy. The advertisement of this mammoth carriage factory will be

## \$50 IN A LUMP



That is just about the amount of money the shrewd horse buyer wants to knock off the price of a good horse for one small lump on the leg. Why not take off the lump and get the extra money?

QUINN'S  
OINTMENT

will remove all lumps and bunches permanently without leaving a scar. For sale at all drug stores at \$1.50 pkg. Smaller size 50c. W. B. EDDY & CO., Whitehall, N.Y.

Many people are skeptical regarding testimonials. We offer

## \$5,000.00 Reward

to any person who can prove bogus one letter that we publish in praise of the famous veterinary remedy

## Tuttle's Elixir.

Send three 2-cent stamps for postage on sample bottle, and list of testimonials.

DR. S. A. TUTTLE, 27 Beverly St., Boston.

found in another column, and it is suggested that all our readers owning a horse send for a catalogue and prices at once if they have not already done so.

## THE STRAY LIST.

FOR WEEK ENDING APRIL 21, 1898.

Coffey County—Dan K. Swearingen, Clerk  
FILLY—Taken up by John Willby, in Pleasant tp. (P. O. Burlington), one bright bay filly with black mane and tail, 2 years old, weight 750 or 800 pounds, no marks or brands; valued at \$15.  
MULE—By same, one very dark brown horse mule, mane and tail long, weight about 700 pounds, 2 year old, no marks or brands; valued at \$15.  
Sheridan County—H. W. Percival, Clerk  
HORSE—Taken up by J. H. Small, in Adell tp., March 25, 1898, one bay horse, blind in right eye; valued at \$20.  
HORSE—By same, one sorrel horse, white hind legs; valued at \$15.

Labette County—E. H. Hughes, Clerk.

MULE—Taken up by T. J. Vance, in Elm Grove tp. (P. O. Edna), April 2, 1898, one iron gray horse mule, 6 years old, 14 hands high, collar marks, no brands; valued at \$25.

MARE—By same, one brown mare, 6 years old, 14½ hands high, left hind foot white, no brands; valued at \$10.

HORSE—By same, one bay horse, 7 years old, left hind foot white, saddle marks; valued at \$8.

FOR WEEK ENDING APRIL 28, 1898.

Cherokee County—S. W. Swinney, Clerk.

MARE—Taken up by C. J. Stephens, in Lowell tp., April 6, 1898, one bay mare, 15 hands high, with letter "P" on right hip, weight 850 pounds; valued at \$30.

Ness County—J. S. Wagner, Clerk.

MARE—Taken up by E. Dawley, in Highpoint tp. (P. O. Ness City), March 24, 1898, one black mare, 5 years old, left hind foot white; valued at \$15.

MARE—By same, one brown mare, 5 years old, left hind foot white; valued at \$15.

FOR WEEK ENDING MAY 5, 1898.

Coffey County—Dan K. Swearingen, Clerk.

MULE—Taken up by Daniel Leggett, two miles east of Hartford, in California tp., one brown mare mule, 3 years old; no marks or brands.

Sumner County—W. E. Wood, Clerk.

MARE—Taken up by C. Hatton (P. O. Rome), April 11, 1898, one gray mare, 17 hands high, shod all around; valued at \$15.

HORSE—By same, one sorrel horse, 14 hands high, blaze face and three white feet; valued at \$35.

Labette County—E. H. Hughes, Clerk.

HORSE—Taken up by Caleb Loop, in Hackberry tp. (P. O. Barlett), April 25, 1898, one brown horse, gelding, 15½ hands high, no marks or brands; valued at \$25.

## MAKE CHEESE AT HOME.

Send One Dollar to  
C. E. KITTINGER, Ipswich, S. Dak.,

For ten rennets, with complete instruction for making and curing cheese at home with such simple apparatus as most farmers now have. Full cream factory cheese the kind made, and your money refunded if you fail.

# BLACK LEG

PREVENTED BY

## PASTEUR "VACCINE."

Write for particulars, prices and testimonials of thousands of American stockmen who have successfully "vaccinated" their stock during the past three years in Dakota, Nebraska, Wyoming, Colorado, Kansas, Texas, etc.

PASTEUR VACCINE CO., 52 Fifth Avenue, CHICAGO.

# FAIRBANKS' STANDARD SCALES.

—FOR—

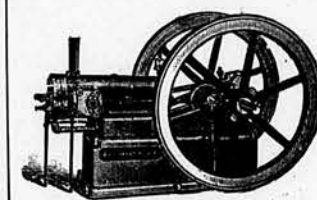
Stock, Hay, Coal, Etc.,  
Mills, Elevators,  
Warehouses

Send for Catalogue.

# WINDMILLS.

Eclipse Wood Wheel and  
Fairbanks' Galvanized Steel  
FOR PUMPING OR GRINDING.  
Towers, Tanks, Water-works  
and Irrigation Supplies.

Send for Catalogue.



FAIRBANKS-MORSE  
GAS and GASOLINE  
ENGINES.

Especially built for Threshing, Pumping, Grinding and general services. Estimates made and complete plants installed.

FAIRBANKS, MORSE & CO.,  
1217-19 Union Ave., KANSAS CITY, MO



## Saved from Hog Cholera

Many farmers in the West, where hog cholera rages most, have saved their hogs  
BY USING MCLEERY'S  
HOG CHOLERA PREVENTIVE.

Mixed with the feed it gets into the blood and destroys all cholera and disease germs, kills stomach and intestinal worms, regulates the bowels and stomach and promotes good health.

Free Trial Package Enough to treat 2 hogs postage. One dollar worth mailed for 15c. to pay Free circulars and testimonials.  
T. C. MCLEERY, M. D., EXETER, NEB.

1898. 20th YEAR

CHAMPION

THE CHAMPION  
Rakes and Stackers are  
in the lead, and have been for  
several years. Send for descriptive  
circular and cuts showing valuable  
improvements added this year, also our  
catalogue of Hay Presses, Etc., Kansas City Hay Press Co.  
KANSAS CITY MO.



MARKET REPORTS.

Kansas City Live Stock.

KANSAS CITY, May 2.—Cattle—Receipts since Saturday, 3,269 cattle; calves, 10; shipped Saturday, 340 cattle; no calves. The market was steady to 10c lower. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.			
No.	Ave. Price.	No.	Ave. Price.
19.....	1,507 \$4.80	39.....	1,379 \$4.75
20.....	1,494 4.70	40.....	1,318 4.50
21.....	1,132 4.35	41.....	1,245 4.25
22.....	1,120 4.00	42.....	1,150 3.75
WESTERN STEERS.			
45.....	1,168 \$4.30	67.....	1,154 \$4.25
46.....	999 4.20	68.....	986 4.15
47.....	1,023 4.05	69.....	1,007 3.90
48.....	955 3.70	70.....	920 3.40
NATIVE HEIFERS.			
1.....	799 \$4.05	1.....	640 \$4.50
11.....	713 4.40	41.....	611 4.35
1.....	900 4.30	1.....	1,570 4.25
NATIVE COWS.			
32 c&h.....	810 \$4.55	1.....	1,389 \$4.00
9.....	970 3.85	4.....	1,172 3.60
3.....	1,026 3.25	4.....	830 3.00
1.....	830 2.75	1.....	650 2.25
NATIVE FEEDERS.			
37.....	632 \$5.25	3.....	630 \$5.00
9.....	820 4.70	2.....	910 4.40
16.....	1,141 4.35	20.....	871 4.25
1.....	650 4.05	27.....	738 4.15
NATIVE STOCKERS.			
37.....	632 \$5.25	3.....	630 \$5.00
9.....	820 4.70	1.....	880 4.45
20.....	871 4.25	5.....	706 4.20
27.....	738 4.15	1.....	630 4.05

Hogs—Receipts since Saturday, 7,572; shipped Saturday, 2,021. The market was 5 to 10c higher. The following are representative sales:

59...288 \$4.05	24...263 \$3.00	66...268 \$4.00
68...293 4.00	55...319 3.97½	61...279 3.97½
64...227 3.95	70...238 3.95	67...262 3.95
74...233 3.92½	56...200 3.92½	70...231 3.90
18...279 3.90	74...226 3.90	8...198 3.87½
66...271 3.87½	73...266 3.87½	87...231 3.85
41...218 3.85	68...266 3.85	73...205 3.82½
96...181 3.82½	30...226 3.80	91...219 3.80
72...236 3.80	89...194 3.77½	324...200 3.77½
51...142 3.75	80...188 3.75	111...164 3.75
88...150 3.77½	101...161 3.75	94...175 3.72½
99...184 3.70	96...195 3.70	10...131 3.70
106...146 3.67½	81...166 3.67½	6...126 3.65
10...150 3.60	10...138 3.55	2...125 3.50
16...128 3.50	1...360 3.50	1...410 3.50
8...130 3.40	12...133 3.35	40...112 3.35
1...480 3.25	17...132 3.15	11...93 3.10
29...132 3.10	2...75 3.00	21...81 2.75

Sheep—Receipts since Saturday, 2,867; shipped Saturday, 635. The market was generally steady. The following are representative sales:

185 Col. lbs. 75 \$5.30	250 W. lbs. 80 \$5.15
16 cl. lbs. 66 4.35	232 nat. s & y. 89 4.25
259 N. M. sh. 80 4.00	1 Col. 100 4.00
232 La. stk. 58 3.60	160 N. M. stk. 54 3.25

Horses and mules—Only a moderate supply of horses came in, mostly mixed loads. Several new buyers were on the market, but not as many as a week ago. The mule market is nominally steady. The receipts were also moderate.

St. Louis Live Stock.

ST. LOUIS, May 2.—Cattle—Receipts, 2,200; market steady for natives, Texans slow and lower; native shipping steers, \$4.35 @ \$4.55; light and dressed beef and butcher steers, \$3.90 @ \$4.75; stockers and feeders, \$4.00 @ \$4.50; cows and heifers, \$2.00 @ \$4.70; Texas and Indian steers, \$3.40 @ \$4.60; cows and heifers, \$2.70 @ \$2.75.

Hogs—Receipts, 4,000; market 5 to 10c higher; yorkers, \$3.75 @ \$3.90; packers, \$3.85 @ \$4.00; butchers, \$4.00 @ \$4.10.

Sheep—Receipts, 2,000; market steady; native muttons, \$4.00 @ \$4.65; lambs, \$4.50 @ \$8.00 for springs.

Chicago Live Stock.

CHICAGO, May 2.—Cattle—Receipts, 20,000; market weak and generally 10c lower; beefs, \$3.90 @ \$5.35; cows and heifers, \$2.25 @ \$4.50; Texas steers, \$3.75 @ \$4.40; stockers and feeders, \$3.70 @ \$4.75.

Hogs—Receipts, 38,000; market active and 5c higher; light, \$3.85 @ \$4.07½; mixed, \$3.90 @ \$4.15; heavy, \$3.90 @ \$4.20; rough, \$3.90 @ \$4.00.

Sheep—Receipts, 22,000; market weak to 10c lower; native, \$3.20 @ \$4.35; western, \$3.75 @ \$4.40; lambs, \$3.75 @ \$5.40.

Chicago Grain and Provisions.

	May 2.	Opened	High'st	Low'st	Closing
Wh't—May....	1 20	1 20	1 17½	1 20	
July.....	94½	95½	93½	94½	
Sept.....	81½	82½	81½	81½	
Dec.....	81½	81½	80½	81½	
Corn—May....	33½	33½	32½	33	
July.....	34½	34½	33½	33½	
Sept.....	35½	35½	34½	34½	
Oats—May....	31½	31½	30	30½	
July.....	26½	27	26	25½	
Sept.....	23½	24	23½	23½	
Pork—May....	11 00	11 00	10 90	10 90	
July.....	11 27½	11 40	11 07½	11 12½	
Lard—May....	5 82½	5 82½	5 72½	5 75	
July.....	5 87½	5 87½	5 77½	5 80	
Sept.....	5 85	5 95	5 90	5 90	
Ribs—May....	5 52½	5 52½	5 50	5 55	
July.....	5 57½	5 60	5 52½	5 55	
Sept.....	5 52½	5 70	5 60	5 67½	

Kansas City Grain.

KANSAS CITY, May 2.—Wheat—Receipts here to-day were 259 cars; a week ago, 168 cars; a year ago, 34 cars. Sales by sample on track: Hard, No. 1, \$1.07; No. 2 hard, \$1.05 @ \$1.06½; No. 3 hard, \$1.01 @ \$1.05; No. 4 hard, 99c @ \$1.03½; rejected hard, 92c @ 98c. Soft, No. 1 red, nominally \$1.08; No. 2 red, \$1.05 @ \$1.07; No. 3 red, \$1.03½ @ \$1.04; No. 4 red, \$1.00; rejected red, nominally 97c @ \$1.00. Spring, No. 2, \$1.03½ @ \$1.05; No. 3 spring, \$1.01 @ \$1.02½; rejected spring, nominally 95c @ 98c.

Corn—Receipts here to-day were 94 cars; a week ago, 104 cars; a year ago, 299 cars. Sales by sample on track: Mixed, No. 2, 32½ @ 33½c; No. 3 mixed, 32 @ 32½c; No. 4 mixed, nominally 31½c. White, No. 2, 33c; No. 3 white, 32½c; No. 4 white, 31½c.

Oats—Receipts here to-day were 12 cars; a week ago, 18 cars; a year ago, 21 cars. Sales by sample on track: Mixed No. 2, 32½ @ 33½c; No. 3 mixed, 32½c; No. 4 mixed, nominally 31c. White, No. 2, 33½ @ 34c; No. 3 white, 33 @ 33½c; No. 4 white, nominally 32c.

Rye—No. 2, 57c; No. 3, 56½c; No. 4, nominally 54c.

Hay—Receipts here to-day were 47 cars; a week ago, 88 cars; a year ago, 49 cars. Quota-

tions are: Choice prairie, \$7.50; No. 1, \$8.00; No. 2, \$8.50 @ \$8.75; No. 3, \$7.75 @ \$8.00; choice timothy, \$10.50 @ \$10.75; No. 1, \$10.00; No. 2, \$9.00 @ \$9.25; choice clover and timothy, No. 1, \$8.75 @ \$9.00; No. 2, \$7.75 @ \$8.00; pure clover, \$7.75 @ \$8.00; packing, \$7.25.

Kansas City Produce.

KANSAS CITY, May 2.—Butter—Extra fancy separator, 18½c; firsts, 13½c; dairy, 11 @ 14c; country roll, 11c; extra fancy, 13c; store packed, 11c; fresh packing stock, 8 @ 10c.

Eggs—Strictly fresh, 9c per dozen. Poultry—Hens, 6½c; broilers, \$3.00 @ \$4.00 per doz.; roosters, 15c each; ducks, 6c; geese, 4c; hen turkeys, 8c; young toms, 7c; old toms, 6c; pigeons, 75c per dozen.

Apples—Fancy Missouri Pippin, \$3.00 @ \$3.50; fancy Ben Davis, \$3.00 @ \$3.25; choice to fancy, \$2.75 @ \$3.00; Winesaps, \$3.50 @ \$4.00; Willow Twigs, \$3.50 @ \$4.00. In a small way varieties are selling at 40 @ 65c per half bu.

Vegetables—Cabbage, \$2.00 per 100-lb. crate. Beets, 25 @ 40c per bu. Green and wax beans, \$2.50 @ \$3.00 per crate. Navy beans, hand picked, \$1.50 per bu. Onions, 85c @ \$1.50. Lettuce, home grown, \$1.00 per bu. Spinach, home grown, 40 @ 75c per bu.

Potatoes—New, Texas, \$2.00 per bu.; old northern stock, fancy, sacked, Burbanks, 70 @ 75c; choice to fancy mixed, bulk, 60 @ 65c; Minnesota and Dakota, bulk, 65 @ 70c; Colorado stock, fancy, sacked, 75 @ 80c; home grown, sacked, 40 @ 50c. Sweet potatoes, 60 @ 75c. Seed potatoes, northern grown, Early Rose, 75c; Early Ohio, 75c; Red river stock, 80c.



### GOSHEN LOW WAGON WHEELS

Composed of layer upon layer of inch kiln dried Indiana White Oak. See the wedge-shaped sections; grain runs from hub to tire. Look at the rivets that hold layers together. Wheels 18 to 36 in.; tire 3½ to 6 in.; fit any wagon. Buy a set & have two wagons—high one and low one. Fully guaranteed. Circulars and price list free.

Kelly Fndry & Mch. Co.  
56 Purist, GOSHEN, IND.



### CIDER PRESS

One-third more cider with the HYDRAULIC than with the old style press. Send for Catalogue. It's FREE.

Davis-Johnson Co.  
Western Agents,  
HYDRAULIC PRESS MFG. CO.  
41 W. Randolph St., CHICAGO.

# Port Arthur's Prosperity Is Based on Business.

Over 12,000 tons of export and import freight now being handled over its docks per month.

Three steamship lines now running to British, Continental and Mexican ports.

Over one-half the canal completed to a depth of sixteen feet.

One hundred thousand dollars' worth of property sold in March.

Go to Port Arthur and see what the backing of a 1,227 mile trunk line means.

Over 12,000 tons of export and import freight now being handled over its docks per month.

Three steamship lines now running to British, Continental and Mexican ports.

Over one-half the canal completed to a depth of sixteen feet.

One hundred thousand dollars' worth of property sold in March.

Go to Port Arthur and see what the backing of a 1,227 mile trunk line means.

For information write to

## F. A. HORNBECK,

General Manager  
Port Arthur Townsite Co.,  
KANSAS CITY, MO.

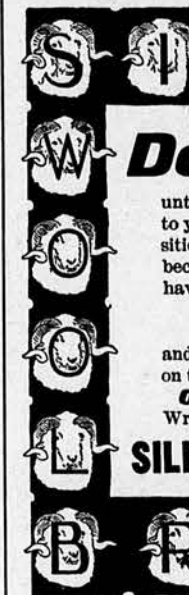
CALVIN HOOD, President. L. A. ALLEN, Vice President. H. S. BOIER. T. J. EAMAN, Sec'y and Treas.

## Kansas City Live Stock Commission Co.

Rooms 277 A, B, C, D Stock Exchange,  
**KANSAS CITY STOCK YARDS.**

L. A. ALLEN, CHAS. W. CAMPBELL, PEYTON MONTGOMERY, Cattle Salesmen. W. T. MCINTIRE, Sheep Salesman. J. T. MEGREDY, Hog Salesman.

Correspondence and consignments solicited. Good sales, prompt returns. Ample capital. Twenty years actual experience. Market reports free on application.



## Don't Ship Your Wool

until you have corresponded with us. We think we can demonstrate to you that this course **will be to your interest.** We are in a position to **sell your product direct to the manufacturer** because we are the largest handlers of wool in the west, and always have a sufficient stock to meet his demands.

**We Make Liberal Advances on Consignments** and charge only **at the rate of 5 per cent. interest** per annum on the same. We furnish sacks free to our customers.

**Our Circular Letter keeps you posted on the market.** Write for it and other pointers on the situation.

**SILBERMAN BROS.** 122-124-126-128 MICHIGAN STREET, CHICAGO, ILL.



### Machine \$10

TO BUILD THE STRONGEST AND BEST WIRE FENCE. 16 to 24 Cents per Rod. No farm rights, royalties or patent stays to buy. AGENTS WANTED. Write for circular.

The Bowen Cable Stay Fence Co.  
NORWALK, OHIO, U. S. A.



### CABLED FIELD AND HOG FENCE

With or without lower cable barbed. Cabled Poultry, Garden and Rabbit Fence, Steel Web Picket Fence for lawns and cemeteries, Steel Gates and Posts.

DE KALB FENCE CO., 23 High St., DE KALB, ILL.



### WAR NEWS!

The papers are full of startling statements. Rash conclusions are foolish and unfortunate. Try and prove Page Fence before you make a decision. See our ad. in next issue.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

NOW IS THE TIME TO PREPARE FOR SPRING WORK. And Here is the Biggest Bargain on Earth.



### DOUBLE FARM HARNESS, No. 1204 FOR \$11.10.

Three-fourth inch Bridles throughout, heavy leather team collars, varnished iron bound hames, 1½ doubled and stitched traces with ¾ ft. chain at end, flat leather pads, ¾ inch back straps, ¾ inch hip straps, ¾ in. by 13 ft. leather lines.

Our prices with hip straps, Complete, per set \$11.10  
breaching 1.90  
If desired without collars deduct 1.50

Remember we are the largest Harness and Carriage House in the Northwest. Send for our new illustrated Catalogue.

**NORTHWESTERN HARNESS & CARRIAGE CO.,**  
172 Sixth St., St. Paul, Minn.

When you write mention THE KANSAS FARMER

## Kansas City Stock Yards

are the most complete and commodious in the West and second largest in the world. The entire railroad systems of the West and Southwest centering at Kansas City have direct rail connection with these yards, with ample facilities for receiving and reshipping stock.

	Cattle and Calves.	Hogs.	Sheep.	Cars.
Official Receipts for 1897.....	1,921,962	3,350,796	1,134,236	123,047
Slaughtered in Kansas City.....	965,287	3,084,623	805,268	
Sold to feeders.....	685,615	341	151,389	
Sold to shippers.....	216,771	263,592	91,576	
Total Sold in Kansas City 1897.....	1,847,673	3,348,556	1,048,233	

CHARGES: YARDAGE—Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, 80c per 100 pounds. CORN, 60c per bushel. OATS, 60c per bushel.

**NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.**

C. F. MORSE, E. E. RICHARDSON, H. P. CHILD, EUGENE RUST,  
Vice Pres. and Gen. Mgr. Secy. and Treas. Asst. Gen. Mgr. Traffic Manager



## The Poultry Yard

KANSAS STATE POULTRY ASSOCIATION.

President, A. M. Story, Manhattan.  
Secretary, J. W. F. Hughes, Topeka.

### THE FARMER'S POULTRY.

By Emerson T. Abbott, St. Joseph, Mo., at the twenty-seventh annual meeting Kansas State Board of Agriculture.

The Missouri hen sends her brightest and best cackle of greeting to her Kansas sister and bids her a happy and prosperous New Year.

I presume it is hardly necessary for me to attempt to defend the Kansas hen in any way. Your efficient Secretary has done that thoroughly and to a "finish," by issuing one of the most excellent bulletins upon that subject that I have ever seen; and, if the Secretary will be kind enough to put his hands over his ears, I will say that that bulletin is characteristic of all the bulletins that issue from his office. That bulletin is not only in demand in Kansas, but is in demand, like all other Kansas bulletins, wherever their contents are known. I do not say this as flattery, because I am a loyal Missourian, and I believe in Missouri and Missouri institutions; but I do have a keen appreciation of anything that seems to be thoroughly in sympathy with the rural industries of the land.

The Secretary, when he wrote to me about coming over here, stated that about twenty-five minutes would be allotted to those who would address you upon any one subject; but after I saw his bulletin I knew that a twenty-five-minute talk was not the measure of his appreciation of the hen.

Heretofore but very little attention has been paid to the poultry on the farm. The majority of farmers keep poultry because—well, perhaps because their fathers kept poultry, perhaps because they inherited poultry; and if they attach any value to poultry it is a very small value; and the value is so small that the keeping of the poultry is generally turned over to the women folk. I presume this is so for two reasons: One is, as I have already mentioned, that they do not think poultry is a matter of any great importance; and the other is that a great many men have a kind of notion that a woman cannot attend to anything that is very important. Now, I want to say just here that I do not endorse either of these theories. I think that poultry is important, and that it is very important; and I think that women have the capacity to attend to just as important things as men have, if you will only give them an opportunity.

### POULTRY IS IMPORTANT.

I say it is important if it is properly cared for. It is important if it is looked after as an auxiliary to other rural industries. I keep fancy poultry, yet I do not believe in professional poultry keeping. I never exhibited a bird in my life, and do not expect to. I cannot remember the time since I have been old enough to care for poultry that I did not try to have fancy poultry as good as any in the country. However, I have but very little interest in them as show birds, but I do have a great deal of interest in the farmer's poultry: in the common every-day hen that has paid the taxes on many and many a home in Missouri and Kansas, and, I presume throughout the entire West. During these hard times, many a poor wife has gotten a new dress, on account of the poultry, that she would not have been able to get had it not been for them; that is, if the husband has not taken the money to buy tobacco.

I do not intend to give you rules for making the poultry business a success as a business, but I do want, if possible, to stir up your enthusiasm and discuss a few principles which underlie successful poultry keeping on the farm in the State of Kansas.

I want to say that the first element of success is, that the poultry shall be comfortable. That doesn't seem to say a great deal at first thought, but there is more in that than you possibly realize, if you have never thought about it. I say that it is absolutely necessary that a fowl be comfortable in order that it be profitable. There are people who have a notion that fowls do not need any care, or any protection, or any comfort; but that is a mistake.

Now the first element of comfort is, that they should be properly housed. "Well, but it costs money to build houses! It costs money to house poultry as fancy poultry keepers talk about housing them." I must say that I agree with the fancy poultry keeper in this respect. I think I have demonstrated to an absolute certainty that it is not possible to get any profit out of poultry unless it is properly housed. A hen is an obstinate creature. I don't know why

it is, but she will lay eggs persistently and faithfully as long as they are worth from 5 to 10 cents a dozen, but just as soon as eggs go up, and are worth 25 cents a dozen, she will stop laying right away. Along in the summer, when the weather is hot and eggs are not worth much, they will lay; but when the winter comes, and eggs go up to 25 cents a dozen, those hens seem to understand it, and simply stop laying, and won't lay any more as long as the weather is cold and eggs are scarce.

### THE WINTER PRODUCT.

I wonder if there is not a reason for that. I wonder if it is not possible to have a hen lay eggs in the winter just as well as in the summer? I wonder if it isn't just as natural for them to lay in the winter as in summer, if you produce the proper condition of things. I say, yes; but you can't do it unless your poultry is properly housed. It doesn't require a very fancy house; a hen is not very artistic in her tastes. She doesn't care whether the wall is frescoed or made out of straw; she doesn't care whether the sides are painted or made out of old boards, provided the boards accomplish the end desired, namely, to keep her warm. It is possible for a farmer to take a large straw stack and build a rail pen on the south side of it and cover it over with straw and make a first-class warm hen-house in which the chickens would be comfortable during the entire year, and lay an egg almost every day, if given plenty to eat and a good scratching place. But, as a matter of fact, what do they do? Where do they roost? Why, they roost on the mowing machine—they do in Missouri; I don't know whether they do in Kansas or not—and on the plow, and on the buggy, and on the wagon; they roost around wherever they can, and if those things happen to be under shed, of course they are housed that much. Well, an axle of a wagon might make a good place for a hen to roost, or a mowing machine might furnish a good roosting place, but it is rather hard on the mowing machine. A large number of hens roost in trees in Missouri, and the people who own them are led to wonder why it is that they never get any eggs. They expect a hen to fly up in a tree at night during such weather as this, and settle down, tuck her head under her wing, and rest there during the night with the mercury down to zero and the wind blowing a perfect hurricane. In the morning it is cold and bleak; the ground is covered with snow; yet they expect that hen to get down off that tree and hunt for a dry place on the ground, make herself a nest, and lay every day. Now she won't do it; she can't do it. It isn't in reason; it isn't common sense. You know how cross a man is when his ears are frozen, and how cross he is when he gets just a little cold; and yet people expect hens to live out-of-doors in that kind of temperature and lay an egg every day. Do you know what I would do if I were a hen? I would get right up and swear "by the eternals" I would never lay an egg again in my life if you treated me that way. But some people expect them to go on laying day after day, week after week, and month after month, with just that kind of treatment. A hen with that kind of treatment has to eat an extra quantity to keep up her vitality. In order to lay she must have a superabundance of food—a sufficient quantity to make another hen, if you please. An egg is the result of a superabundant vital force that is in the hen; and in order to produce an egg—if I may use the expression that a hen is a machine—you must put into the hen sufficient vital force to perpetuate the organism of the hen, to keep up her normal heat, and a sufficient extra vital force to produce an egg, which contains all the elements necessary to make up a hen—feathers, bone flesh, and all.

(To be continued.)

Old horses are harder to keep and do not move as rapidly as young horses.

Educate Your Bowels With Cascarets. Candy Cathartic, cure constipation forever. 10c, 25c. If C. C. C. fail, druggists refund money.

**THE IMPROVED VICTOR Incubator**  
Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class Hatcher in the market. Circulars FREE.  
GEO. ERTEL CO., QUINCY, ILL.

It rests with you whether you continue the nerve-killing tobacco habit. **NO-TO-BAC** removes the desire for tobacco, without nervous distress, expels nicotine, purifies the blood, restores lost manhood, makes you strong in health, nerve and pocket.  
**STOP SMOKING!** **NO-TO-BAC** from your own druggist, who will vouch for us. Take it with a will, patiently, persistently. One box, \$1; usually cures; 3 boxes, \$2.50. GUARANTEED to cure, or we refund money. Sterling Remedy Co., Chicago, Montreal, New York.

**DIP** your sheep in the oldest and best preparation... **THYMO-CRESOL** A strictly NON-POISONOUS preparation that mixes instantly with cold water. Strongest and purest, therefore cheapest. Used and recommended by leading veterinarians all over the world. Samples by mail, 10 and 50 cts. Write for particulars. **LAWFORD BROS. Box M, BALTIMORE, MD.**

## America's Ten Greatest Dairying Authorities on Cream Separators.

### The Wisconsin Agricultural Experiment Station.

MADISON, WIS., July 13, 1897.  
In conducting our Dairy School, we have had occasion to use the various sizes of Improved U. S. Separators for dairy instruction during several winters past. Our students have always been pleased with the operation of these Separators, and we find that they skim the milk very clean indeed from fat, and that they are generally very satisfactory.

W. A. HENRY, Dean College of Agriculture.

### Cornell University Experiment Station.

ITHACA, N. Y., November 15, 1897.  
We have used the U. S. Separators for the past four or five years, and have found them at all times efficient and reliable. They are easily cleaned and kept in order, and can be depended upon for satisfactory work.

H. H. WING, Prof. Dairy Husbandry.

### Massachusetts Agricultural College.

AMHERST, MASS., July 7, 1897.  
We regard the Improved United States Separator as one of the very best all round machines. In cleanliness of skimming it surpassed all the others. It compares favorably with the rest in capacity. Our man calls it the smoothest running machine we have, although it has been in use nearly three years—a good comment on its wearing qualities.

F. S. COOLEY, Prof. of Ag't.

### Michigan Experiment Station.

AGRICULTURAL COLLEGE, MICH., Jan. 27, 1897.  
Your No. 5 Separator was received, set up, and has been operated daily since the 4th of January. Each of our dairy boys has now had a turn at it, setting it up, running it, washing it, and testing the skim-milk. They all like the machine, on account of its easy running and simplicity. We are running through milk 22 to 24 hours old, warmed to over 80 and usually about 90 degrees. The per cent. of fat in the skim-milk, so far as reported, will not reach on the average a tenth of a per cent., and often is too small to read, in the skim-milk bottle. We are pleased with the machine in every possible way, as far as we have been able to observe it in a month's use.

CLINTON D. SMITH, Director Michigan Experiment Station.

### 1898 Record Equally as Good.

AGRICULTURAL COLLEGE, MICH., March 25, 1898.  
I do not know that I have anything to add to what I wrote you in January, 1897, or any changes to make in the statements therein made (see above).

C. D. SMITH, Director.

### Vermont Experiment Station.

UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE, BURLINGTON, VT., June 25, 1897.  
It has been the uniform custom of the officers of the Vermont Station to decline to issue letters of a testimonial nature. I may say, however, that I can and do refer parties inquiring regarding the merits of the Improved United States Separators to the records of the running of the same as published in our report for 1894.

(The tests referred to are as follows):

Aug. 14.....0.05      Aug. 19.....0.06  
16.....0.05      21.....0.05

The results obtained by the use of these machines at our Dairy Schools of the past two years are full better, so far as the character of the skimming is concerned, than those given in the report.

JOSEPH L. HILLS (Director Vt. Experiment Station).

### Iowa Experiment Station.

AMES, IOWA, Jan. 25, 1897.  
Your two machines have been here in use for some time and are doing excellent work. We have succeeded in skimming over 2,600 pounds per hour, and as close as 0.07 of one per cent. of fat left in skim-milk, with the larger machine. This we consider excellent work for the winter. The small machine also does good work.

G. L. MCKAY, State Dairy Instructor, Iowa Ag'l College.

### Again in June; Iowa Experiment Station.

AMES, IOWA, June 25, 1897.  
Your large size factory machine has been doing excellent work. We have used it six days per week for the past two months, and it skims to a trace right along, skimming 2,500 to 2,700 pounds per hour.

G. L. MCKAY, State Dairy Instructor.

### Ohio State University.

COLUMBUS, OHIO, June 25, 1897.  
Enclosed you will find statement of the several runs made with your various Separators.

(Tests from the runs referred to show the following):  
January 15.....0.02      February 2.....0.00      February 15.....0.02  
18 tests show not over 0.05 of one per cent. of fat.

Of course, you will understand that these runs were made by students who at the beginning had no knowledge of separator work. The same efficiency can hardly be expected under such circumstances as where operated by an expert.

THOMAS F. HUNT (Professor of Agriculture).

### Idaho Experiment Station.

MOSCOW, IDAHO, March 26, 1897.  
Our Dairy School has just closed, having had a very successful career. We have used daily one of your No. 5 Improved U. S. Separators. It has given perfect satisfaction, and is the favorite with all the boys.

CHAS. P. FOX, Professor of Agriculture.

### Connecticut Experiment Station.

NEW HAVEN, CONN., Aug. 3, 1897.  
The Improved U. S. Steam Turbine is running every day, and has been since April. It is an easy-running and thorough skimming machine. In two recent tests, made on different days, running a trifle over 700 lbs. of milk per hour, the skim-milk showed:

No. 1, 0.06 of 1 per cent. butter fat.

No. 2, 0.07 " "

This is as close as any one could ask for.

A. W. OGDEN, Chemist, Conn. Ag'l Experiment Station.

### Missouri Experiment Station.

COLUMBIA, MO., March 25, 1898.  
The Improved U. S. Hand Separator was used in our Dairy School during the winter term to the entire satisfaction of instructors and students, and did most excellent work.

J. H. WATERS, Dean and Director.

The Improved United States Separators are now not almost but altogether universal. The number in use is 126,000, more or less. Their sale is eleven to one of all imitating machines combined. The latest improvements carry them still further to the front. Send for new Dairy catalogue No. 201 or new Creamery catalogue No. 196.

VERMONT FARM MACHINE CO.,

Bellows Falls, Vt.



**GOOD WHEELS**  
**MAKE A GOOD WAGON.**  
 Unless a wagon has good wheels it is useless.  
**THE ELECTRIC WHEEL**  
 are good wheels and they make a wagon last indefinitely. They are made high or low, any width of tire, to fit any axle. They can't get loose, rot or break down. They last always. Catalog free. Electric Wheel Co., Box 46, Quincy, Ills.

**BUGGY HARNESS.**  
**BUY FROM MANUFACTURER DIRECT.**

Our No. 201, with one-inch trace, hame and collar, \$6 per set. Our No. 19, with one-inch trace, double hip strap, hame and collar, \$9 per set. Our No. 20, with one and one-quarter inch trace, single strap throughout, with curved breast collar, nickel or imitation rubber, at \$12 per set. Goods shipped anywhere on receipt of price, or C. O. D. if \$1.50 is sent with order. Mention size of collar. A. BURK, 2230 W. Jefferson, Louisville, Ky.

**PORTABLE WELL DRILLING MACHINERY.**

Established 1867. Covered by patents. Machines drill any depth both by steam and horse power. Twenty different styles. Send for free illustrated catalogue. Address, **KELLY & TANEYHILL, Waterloo, Iowa.**

We make Steel Windmills, Steel Towers and Feed Grinders and are selling them cheaper than the cheapest. Our productions are standards; are first-class in every respect. They are sold on trial. Send us a postal and we will tell you all about them. **CURRIE WINDMILL CO.,** AGENTS WANTED. Manhattan, Kas.

**THE IMPROVED SCALE**  
 Manufactured by **KIMBALL BROS.**  
 1004 Ninth St., Council Bluffs, Iowa.

**LIGHTNING WELL MACH'Y**  
**PUMPS, AIR LIFTS, GASOLINE ENGINES.**  
 CIRCULARS FREE  
**THE AMERICAN WELL WORKS.**  
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**THE ONLY "QUICK REPAIR" PUMP**  
**SQUIRTS tell the story**  
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Pressure between burrs in grinding is carried on chilled roller bearings. Large inside burr revolves twice as fast as ordinary length sweep.  
**DAIN DOUBLE MILL**  
 Sold under an absolute guarantee to do double the amount of work of any other mill of same size or money refunded. Write for circulars and prices. **DAIN MFG. CO.,** Carrollton, Mo.

**THE NEW HUBER TRACTION ENGINE**

**5000 in use.**  
 Winner in all practical tests at World's Fair. All sizes, both simple and compound. Ask for Catalog.

**NEW HUBER SEPARATOR With WIND STACKER.**

Won the \$200 Gold Prize last season for making the best straw stack. Also furnished with **AUTOMATIC SWINGING STACKER ATTACHED** to machine, doing same work as an independent stacker. See the New Huber for 1898 if you expect to buy a machine. Write for catalogue.

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 General Western Agents,  
 1209 to 1215 Union Ave., KANSAS CITY, MO.

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 Buy direct from factory at Wholesale Prices. 30 per cent saved. Guaranteed for two years. Write to-day for new beautifully illustrated Catalogue, send 3 cents in stamps. Highest awards given us at World's Fair, Atlanta Exposition, Nashville Centennial Exposition.  
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 Price \$44. Price \$60.

**A SMALL THRESHING MACHINE**  
 Something for the farmer, who can do his own threshing, with less help and power than ever before. We also make a full line of Sweep and Tread Powers.  
**THE COLUMBIA THRESHER**  
 has great capacity, and can be run by light power. Send for illustrated catalogue, giving testimonials.  
**BELLE CITY FREED AND ENSILAGE CUTTERS**  
 Made in all sizes, for both hand & power use. Send for illustrated catalogue and price list. Will send latest publication on ensilage to all who write for it.  
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**HODGES NEW STEEL CHAIN DRIVE HEADER**  
 In the cutters shown we present to the trade, the very latest and the best production known to the art of header construction.  
 This is the accumulated experience of 38 years of header manufacture. We claim for it that it is perfect in material, construction, working ability, ease of draft, durability and poise and balance. Liston-Wheels are high, broad and strong. Affording easy draft, perfect traction and application of power; the frame is of angle steel firmly joined by malleable corner pieces and thoroughly angle trussed together, thus making the **lightest but strongest frame procurable.** Power is applied by a steel main drive chain of great strength and durability; a perfectly adjustable reel.  
 New steel trussed tilting lever—very sensitive to touch; a new, simple and positive lever within easy reach for throwing in and out of gear. In short, it is intended to be a **PERFECT HEADER** and we believe it is such. Ask your dealer for THE HODGES, insist upon having THE HODGES and buy nothing but THE HODGES if you wish the most perfect **HEADING MACHINE** ever produced. Manufacturers also of the Hodges Hercules Mowers, Hodges "Lad" and "Lassie" Hand and Self Dump Rakes, Monarch and Acme Sweep Rakes and Acme Stackers. Our handsome new illustrated catalogue explains them all fully. Write for it before you buy; it is Free.  
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 For over three years the most expert cycle engineers in the profession have been developing and perfecting Columbia bevel-gears. Practical road trials and scientific tests have demonstrated the ease of running, hill climbing qualities, freedom from dirt and liability to accident of  
**Columbia**  
**Bevel-Gear Chainless Bicycles**  
**Price \$125 to all alike.**  
 There has been no guesswork in making them. There will be no guesswork in your buying one.  

Columbia Chain Wheels,	\$75.
Hartford Bicycles,	\$50.
Vedette Bicycles,	\$40, \$35.

**POPE MFG. CO., Hartford, Conn.**  
 Catalogue free from any Columbia dealer, or by mail for one 2-cent stamp.

**Culver & Bailey, Columbia Dealers, Topeka, Kas.**

**Going East!**  
 Then take the Santa Fe Route to Chicago. Thirty miles the shortest; rock-ballasted track; few grade crossings; vestibuled trains of Pullman palace sleepers and free reclining chair cars lighted by electricity. Dining cars serve all meals and you pay only for what you order. If you want safety, speed and comfort,  
**Travel via Santa Fe Route.**  
**W. C. GARVEY, Agent, Topeka**

**TOP BUGGY FOR \$22.75**  
 Also COLUMBUS BUGGIES for \$25.00.  
 Road Wagons, \$16.50; Phaetons, \$37.50; Surreys, \$48.75. You don't pay for them until after received. Everything in Buggies, Carriages, Harness and Saddles in our Free Vehicle Catalogue. Send for it. **BEARS, ROEBUCK & CO. (Inc.) CHICAGO, ILL.** (Bears, Roebuck & Co. are thoroughly reliable.—Editor.)

**28 YEARS CONSTANT USE**  
 by wind mill users attest the value of our "Old Reliable"  
**DIRECT-MOTION WOOD MILL.**  
 Used for either pumping or power. Made in 8 sizes—from 10 to 24 feet. Don't buy until you inquire into its merits. Free catalogue. **PERKINS WIND MILL CO.,** 31 Race St., MISHAWAKA, IND.

**\$18.00 and \$22.00**  
**Wind Mills and Towers, Complete, Set Up**  
**THE SHURTLEFF CO.**  
**THE Blower Wind Mill**  
 For farmers who cannot afford one of the high-priced steel mills.  
**Pumps, Pipes, Cylinders and Screens.**  
 Send for illustrated circulars and price list before buying.  
**THE SHURTLEFF CO.,** Marengo, Ill.

**THIS IS THE KEYSTONE HAY LOADER**  
 which loads hay from the windrow or direct from the swath where the hay is heavy. It greatly facilitates the operation and reduces the cost of harvesting a crop of hay.  
**"Quick Haying Quality Prime."**  
 You can not be short of help if you have one of these loaders, because one man can load hay with it if necessary. It is a light, strong machine and will last indefinitely.  
**"KEYSTONE CHIEF"**  
 This machine and our side delivery rake make a complete combination for the rapid and economic making of clean, bright, salable hay. More about them in our free circulars.  
**KEYSTONE MFG. CO.,**  
 43 River St. **STERLING, ILL.**

**WHEN OTHERS FAIL**  
 Consult the famous Chinese physician, **DR. GEE WO CHAN**, who cures all Chronic, Nervous and Private Diseases of men and women. Lost Manhood, Varicocele, Premature Decay, and all Blood and Skin Diseases are positively and permanently cured by means of his wonderful Chinese remedies. Over 5,000 vegetable remedies that have never before been introduced into this country. No experiments or failures, but each case is treated under a positive guarantee, backed by a capital stock of \$100,000. The Doctor is a man of such renown in his own country that he was appointed by the Chinese government to take charge of its interests at the World's Fair. The Chinese doctors understand the treatment of Lost Manhood, Impotency and Nervous Diseases better than any other nation. Unnatural losses quickly checked without weakening the sexual system, as is done by all American medicines. Undeveloped and shrunken organs enlarged to their natural size. These remedies are not simple tonics that tone up the system for a little while, but their wonderful effects are positive and permanent. Delicate and complicated cases are specially urged to try this wonderful treatment. Send a 2-cent stamp for a question list and he will tell you all about your case free of charge.  
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 Mention this paper.

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**Travel via Santa Fe Route.**  
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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!

**SPECIAL.**—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with order. Stamps taken.

**CANE SEED** for sale at \$1.25 per 100 lbs. Allen Thomas, Blue Mound, Kas.

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